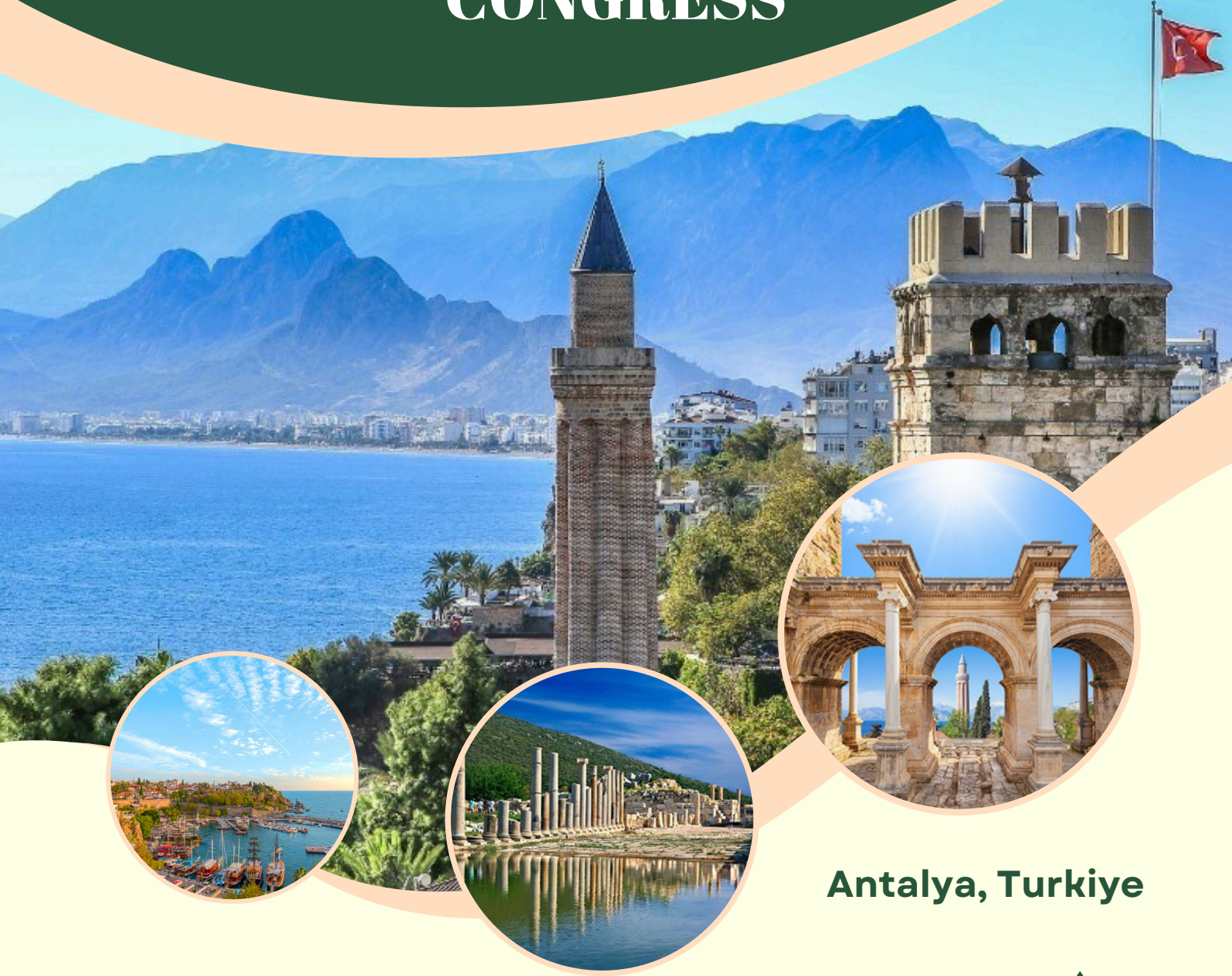


# 7. INTERNATIONAL ANTALYA SCIENTIFIC RESEARCH AND INNOVATIVE STUDIES CONGRESS



**Antalya, Turkiye**

**EDITORS**

**DR. ERTUĞRUL KIRIÇ  
DR. ÖZLEM ÖZKAN ÖNÜR**

**ISBN: 978-625-367-721-3**

**11-13  
May  
2024**

**ABSTRACT BOOK**

7th INTERNATIONAL ANTALYA  
SCIENTIFIC RESEARCH AND  
INNOVATIVE STUDIES CONGRESS

11-13 May 2024, Antalya, Turkiye

EDITORS

Dr. Ertuğrul KIRAÇ

Dr. Özlem ÖZKAN ÖNÜR

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ABSTRACTS BOOK

ISBN: 978-625-367-721-3

# CONGRESS ID

## CONGRESS TITLE

7th INTERNATIONAL ANTALYA SCIENTIFIC RESEARCH AND  
INNOVATIVE STUDIES CONGRESS

## DATE AND PLACE

11-13 May 2024, Antalya, Türkiye

## ORGANIZATION

IKSAD INSTITUTE

## EDITORS

Dr. Ertuğrul KIRIÇ

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# INTERNATIONAL ANTALYA

## SCIENTIFIC RESEARCH AND INNOVATIVE STUDIES CONGRESS-VII



30.05.2024

REF: Akademik Teşvik

İlgili makama;

7. Uluslararası Antalya Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Kongresi, 11-13 Mayıs 2024 tarihleri arasında Antalya’da 36 farklı ülkenin (Türkiye 197 bildiri- Diğer ülkeler 228 bildiri) akademisyen/araştırmacılarının katılımıyla gerçekleşmiştir

Kongre 16 Ocak 2020 Akademik Teşvik Ödeneği Yönetmeliğine getirilen “Tebliğlerin sunulduğu yurt içinde veya yurt dışındaki etkinliğin uluslararası olarak nitelendirilebilmesi için Türkiye dışında en az beş farklı ülkeden sözlü tebliğ sunan konuşmacının katılım sağlaması ve tebliğlerin yarıdan fazlasının Türkiye dışından katılımcılar tarafından sunulması esastır.” değişikliğine uygun düzenlenmiştir.

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Konu :Görevlendirme (Dr.Öğr. Üyesi Burcu  
TEMEL)

SAYIN DR.ÖĞR.ÜYESİ BURCU TEMEL

İlgi : 02.04.2024 tarihli ve 142832 sayılı yazınız.

11.05.2024 ile 13.05.2024 tarihleri arasında Antalya'da düzenlenecek olan "7.ULUSLARARASI ANTALYA BİLİMSEL ARAŞTIRMALAR VE YENİLİKÇİ ÇALIŞMALAR KONGRESİ" nin Düzenleme Kurulu ve ayrıca Kongre Bilim ve Danışma Kurulu'nda akademisyen temsilci olarak yer almak istemeniz ile ilgili talebiniz Müdürlüğümüzce uygun görülmüştür. Bilgilerinizi ve gereğini rica ederim.

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BAYRAKTAR)

01.04.2024

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Fakültemiz Fizyoterapi ve Rehabilitasyon Bölümü öğretim elemanlarında Doç. Dr. Bülent BAYRAKTAR'ın 11-13 Mayıs 2024 tarihlerinde Antalya'da düzenlenecek olan 7. Uluslararası Antalya Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Kongresinde düzenleme Kurulu ve Bilim Kurulunda görev almak istediğine dair talebi Dekanlığımızca değerlendirilmiş ve uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Prof.Dr. Ali Savaş BÜLBÜL  
Dekan V.

Ek: Dilekçe ( 1 Sayfa)

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Gereği:  
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# PHOTO GALLERY

**Drug Loading and Encapsulation**  
NLCs provide a versatile platform for the encapsulation of a wide range of drugs, including hydrophobic, hydrophilic, and amphiphilic compounds. The lipid matrix of NLCs offers protection to encapsulated drugs from degradation and metabolism, thereby improving their bioavailability and therapeutic efficacy. Furthermore, the tunable properties of NLCs allow for precise control over drug loading capacity and release kinetics, enabling tailored delivery profiles for specific therapeutic applications.

**Stability and Biocompatibility**  
NLCs exhibit excellent stability under physiological conditions, with minimal drug leakage or aggregation during storage and transportation. The biocompatible nature of lipid materials used in NLC formulations ensures their safety for systemic administration and reduces the risk of adverse effects or immune responses. Moreover, NLCs can be surface-modified with targeting ligands or stealth coatings to enhance their circulation time and tissue-specific accumulation, thereby improving therapeutic outcomes and minimizing off-target effects.

04

observer h6  
HALL-6, Zineb MOUJOU  
observer h6  
Fundu AYDIN  
H6- P. Jeyaprabha  
B.Jayanthi  
R. Devi hall 6  
H-6 POOJA KU...  
Subhashish Dey  
Bismillah Iftikhar

Sesi aç Videoyu Başlat Katılımcılar Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

observer h6  
Hall-6, Hastrup N.O.  
observer h6  
Hall 6 - Moderator Dr. Monika Stojanova  
H6PTHAMARAI...  
H-6 Sara Badruss  
H6PTHAMARAI SELVI  
Thanh-Dung Ng...  
Thanh-Dung Nguyen (Session 3, Hall-6)  
Dr.Srinivasan  
P  
Preet Kumari  
Dr.Srinivasan

Sesi aç Videoyu Başlat Katılımcılar Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

# PHOTO GALLERY

UPDATED COLLETE AND PREVIOUS CONFERENCE PPT.pptx - Microsoft PowerPoint

**RESULTS**

Table 2: Phytochemical constituents of methanol extract of *Alchornea floribunda* leaves

Phytochemical Constituents	Qualitative analyses	Quantitative analyses (mg/100g)
Alkaloids	++	216.93 ± 6.7
Flavonoids	++	114.12 ± 45.69
Terpenoids	+++	2593.49 ± 452.76
Phenolics	++	69.87 ± 3.88
Tannin	++	95.90 ± 28.11
Steroids	+++	703.24 ± 30.24
Saponins	+	4.14 ± 0.05
Carbohydrates	+	19.73 ± 9.03

Results are expressed in Means ± SD (n=3)

Participants in Hall -6:

- observer h6
- Hall-6, Session-2, Monika Fekete
- Amarachi Precious
- Hall-6 BISMILLA...
- Hall-6 BISMILLAH IFTIKHAR
- HALL -6, S-2, P...
- H-6, S-2, Akmal...
- HALL -6, S-2, P. NITHIN KUMAR
- H-6, S-2, Akmal Farooq
- Dr. K. Masilamani
- Hall -6, Session-...
- Hall -6, Session-2, Christian Chijioke AM

Observer Hall 5

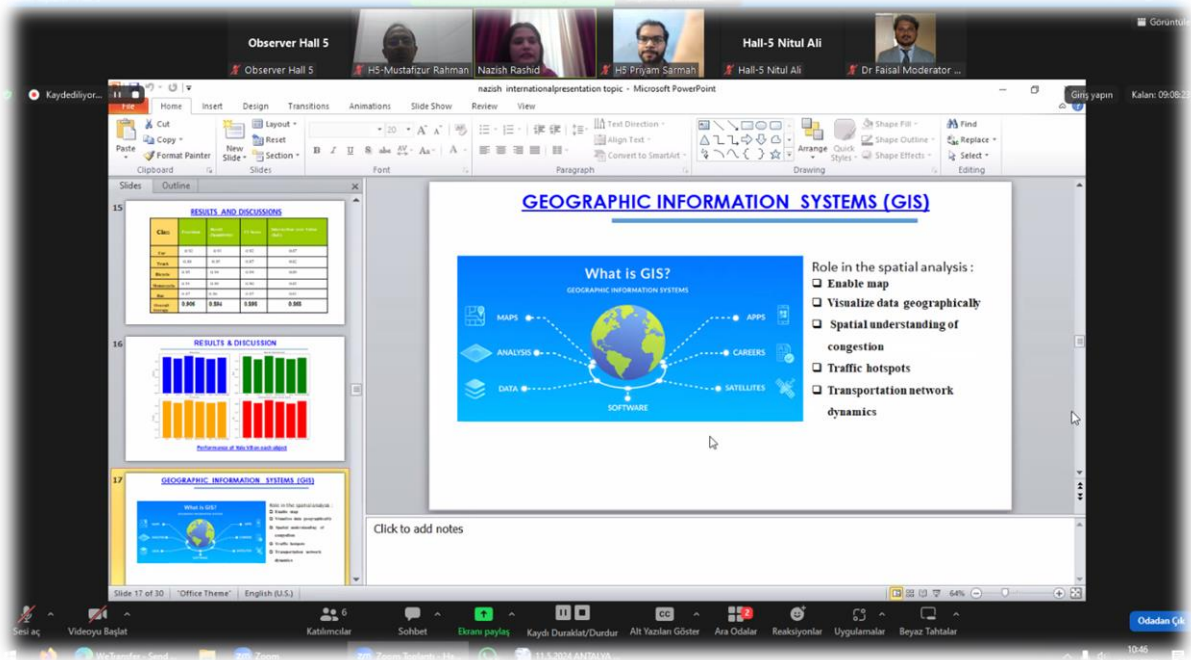
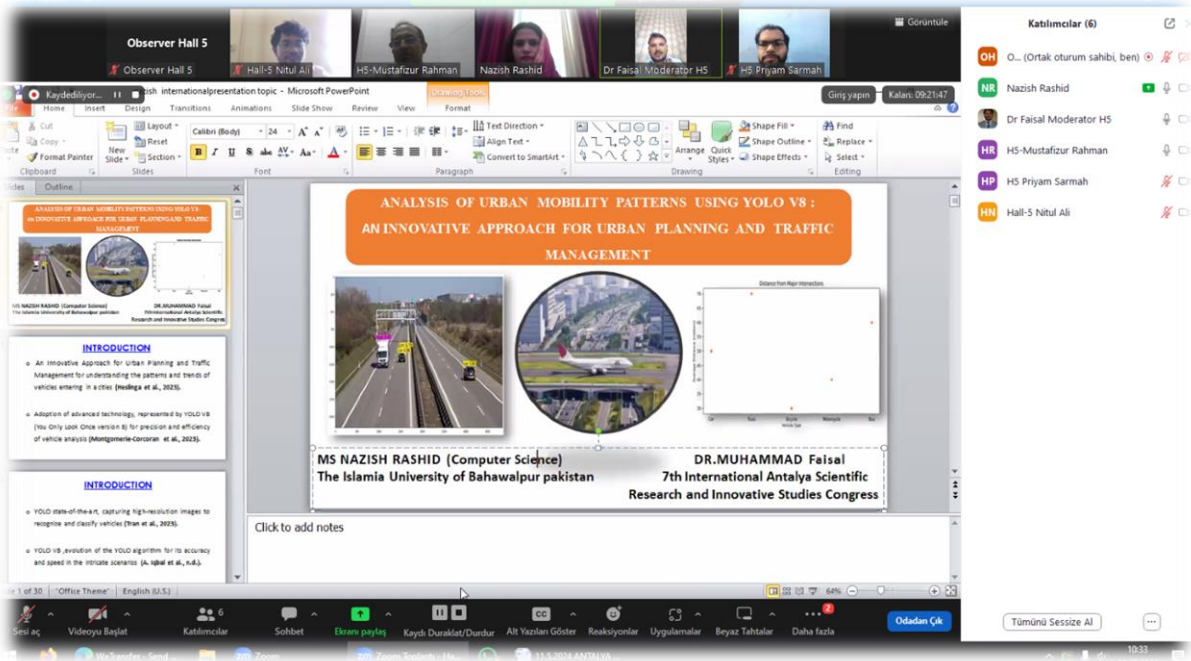
Participants in Observer Hall 5:

- Hall-5 Nitul Ali
- Observer Hall 5
- HS-ATMANI Fatima Ezzahra
- HS-Mustafizur Rahman
- Nazish Rashid
- Dr Faical Moderator HS
- HS Priyam Sarmah
- Samsung SM-G975F
- 1 atanmamış katılımcı

Katılımcılar (8)

- O... (Ortak oturma sahibi, ben)
- Dr Faical Moderator HS
- HS Priyam Sarmah
- HS-ATMANI Fatima Ezzahra
- HS-Mustafizur Rahman
- Hall-5 Nitul Ali
- Nazish Rashid
- Samsung SM-G975F

# PHOTO GALLERY



# PHOTO GALLERY

**Observer Hall 5** | Elmachrafi siha... | H5-zakia hammou | chouaib bousno... | **Katılımcılar (9)**

**Introduction** | Objectives | Material & methods | Results & Discussions | Conclusion & Perspectives

### Fumigation and Repulsion test with essential oils

*Syzygium aromaticum* | *Ziziphora hispanica* | *Laurus nobilis* | Cowpea | *C. maculatus* Pest

*S. aromaticum* EO | *Z. hispanica* EO | *L. nobilis* EO

Biological parameters of *C. maculatus*

Repulsion and Fumigation tests | 1 atanmamış katılımcı

**Katılımcılar (9)**

- OH O... (Ortak oturum sahibi, ben)
- AB Asmae Baghouz Hall 5
- CB chouaib bousnoubra
- ES Elmachrafi siham hall -5
- HF HS-ATMANI Fatima Ezzahra
- HH HS-zakia hammou
- MK Monika krishna
- RETHIKA V
- RY Ranjani Y

**Observer Hall 5** | Asmae Baghouz... | Elmachrafi siha... | H5-zakia hammou | Monika krishna | **Katılımcılar (8)**

### Introduction

$C_{20}$  |  $C_{60}$  |  $C_{70}$  |  $C_{100}$  | SWNT | MWNT

**Katılımcılar (8)**

- OH O... (Ortak oturum sahibi, ben)
- HH HS-zakia hammou
- AB Asmae Baghouz Hall 5
- ES Elmachrafi siham hall -5
- HH HS\_Aisha Hussaini
- HF HS-ATMANI Fatima Ezzahra
- MK Monika krishna
- RETHIKA V

# PHOTO GALLERY

Observer Hall 5 Asmae Baghouz... Elmachrafi siha... H5-zakia hammou H5-ATMANI Fati...

Kaydediliyor... 11

## Materials and Methods

### Preparation of biosorbents

**Biomass** → **Washing, drying, and grinding** → **Chemical activation with  $H_3PO_4$ , KOH for 24h** → **Carbonization 400°C and 500°C** → **Washing and drying** → **Biosorbents**

**Fig. 1** steps for the production of biosorbents from agricultural residues.

Activator	Number of Articles
Phosphoric Acid	17
Zinc Chloride	15
Sodium Hydroxide	11
Potassium Hydroxide	18
Potassium Carbonate	9
New Activating agents	11

**Fig. 2** Number of articles based on the activator used to prepare activated carbon from agricultural residues.

Zoom Meeting | 13/5/2024 | ANADILVA | 10:31

Observer Hall 5 A C Moderator: Sess... chouaib bouznoubra Moderator: Session 3, H... Sobia Mukhtar H-5 S...

Kaydediliyor... 11

## A- SIMULATION RESULTS BEFORE FILTERING

**Fig 3: Source current waveform**

**Fig 4: Harmonic spectrum**

**Fig 5: Control current waveform**

Click to add notes

Zoom Meeting | 13/5/2024 | ANADILVA | 10:20

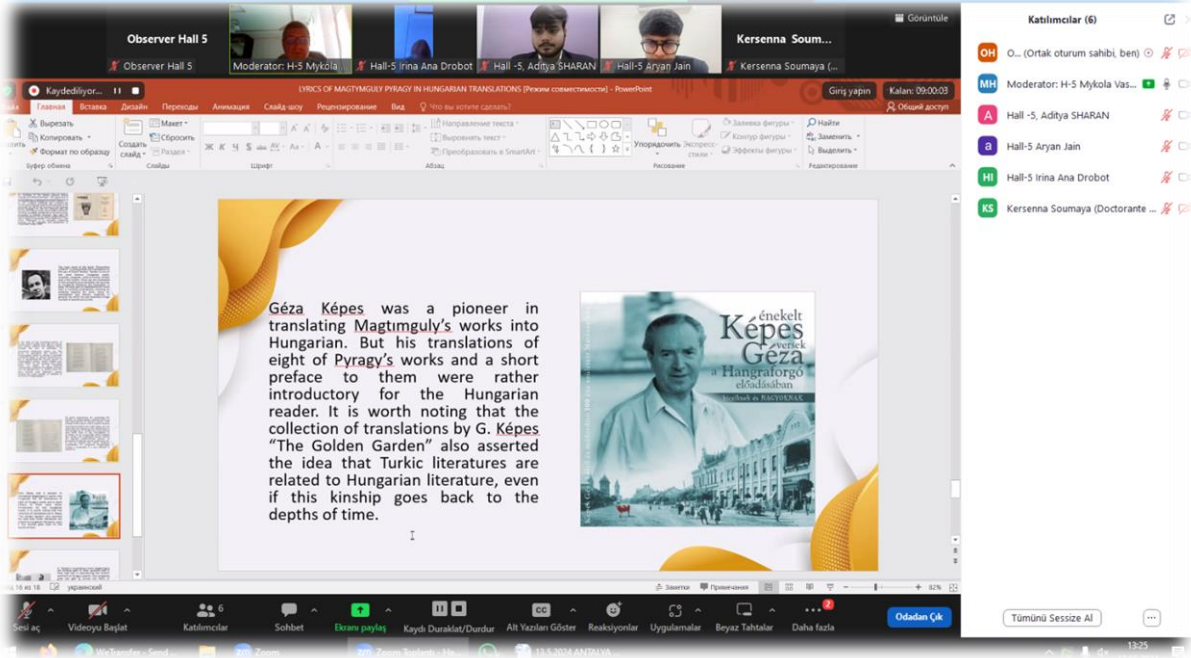
**Katılımcılar (5)**

- OH O... (Ortak oturum sahibi) ben
- C chouaib bouznoubra
- MS Moderator: Session 3, Hall 5, Sal...
- A Amina Khalfaoui
- Sobia Mukhtar H-5 Session1

Tümünü Sessize Al



# PHOTO GALLERY



# PHOTO GALLERY

Kaydediliyor...

Kalan: 09:27:45

Hall 3- Observer

Katılımcılar (10)

Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- HT H3 TESLİME ÖZTÜRK ÇETİN
- MH Moderator: H3-Çağrı Çağlar Sinmez
- HS Hall-3, Seher KAVAK
- HŞ H-3 ŞERİF ÖZLÜ
- H- H3 - Ali Berk DEMİR
- HG H3 Gülsüm Deniz Yılmaz
- HH H3- Hasan Kemal Karabun
- HK H3-Eylem Korkmaz Yenen
- HO Hall3-Ayşenur Özer

Tümünü Sessize Al Daha fazla

Kaydediliyor...

Kalan: 09:50:05

Hall 3- Observer

Katılımcılar (12)

Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- Moderator: H3-Yunus Emre Aydın
- F Funda AYDIN
- H3 H 3-Rabia AKBULUT
- HC H-3 Cansu DENİZ POYRAZ
- H-3 Hayriye Güler
- H-3 Ümit Yüzbaşıoğlu
- H3 Ömer Aydın
- HS H3, Session 2 Ezgi Sevilmiş
- T H3- Tuğçe OKUR
- HC Hall-3 Cansu Yıldırım
- HA Hall-3-Nuray Aşantugrul

Tümünü Sessize Al Daha fazla

# PHOTO GALLERY

Kaydediliyor...

Kalan: 09:44:48

Hall 3- Observer



Katılımcılar (10)

Ara

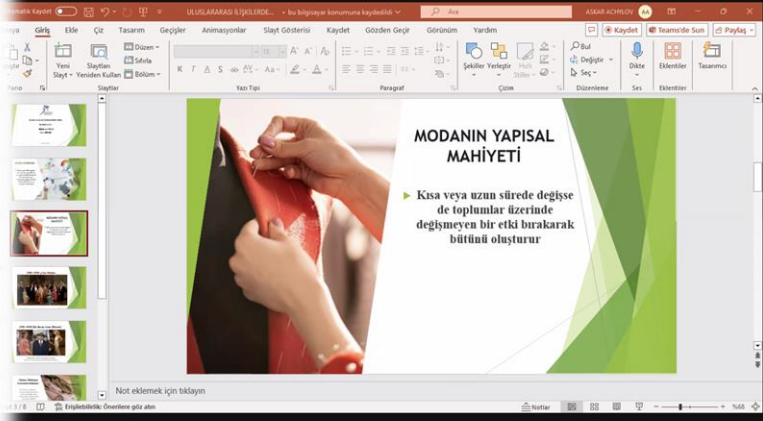
- H3 Hall 3... (Ortak oturum sahibi, ben)
- HD H3-SEHER DÖNER
- MH Moderator: H3-Cihan Emre Tanç
- b burak öztürk
- HG H-3- Gül KADAN
- H3- İlkay Burak TAŞKIRAN
- H3-Ahmad Saleh Ahmad ALshamaleh
- B Hall -3, Beyza ÇANTAK
- HE Hall-3, Esmâ GÖKMEN
- Neytullah Salmi

Tümünü Sessize Al Daha fazla

Kaydediliyor...

Kalan: 09:37:17

Hall 3- Obser...



MODANIN YAPISAL MAHİYETİ

Kısa veya uzun sürede değişse de toplumlar üzerinde değişmeyen bir etki bırakarak bütünü oluşturur

Katılımcılar (8)

Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- H3- Askar Achylov
- HM Hall-3 Mauloddin Sharifi
- H3- Talha Mercimek
- HŞ H3-Büşra ŞENSOY
- H3-Ceren Ece Göcen
- H3 HALL 3 Dr. Nebahat KAYAER
- MH Moderator: H3, Dr İpek BULUT

Tümünü Sessize Al Daha fazla

# PHOTO GALLERY

Kaydediliyor... Kalan: 09:38:29

Hall 3- Observer

H3-Muhammed Emrullah...

Katılımcılar (14)

Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- U H3-Ufuk Gör
- F Moderator: H3- Funda AYDIN
- (H3) Mustafa Arslan
- H-3/S-2Abdalmuhamyen Ghazal
- H- H3 - Hasan Kemal Karabun
- HA H3 Abdullah TURAN
- HV H3 Veysel ULUDAĞ
- HO H3-Elif Özmetin
- HE H3-Muhammed Emrullah KARABAKAN
- HK H3-MUSTAFA KULBAY
- HE H3-Zehra Erdoğan
- H3 Hall 3, İrem Ezgi Ustaoğlu
- RT Rahime Tunç

Tümünü Sessize Al Daha fazla

Kaydediliyor... Giriş yapın Kalan: 09:28:13 Görüntüle

Moderator: H3-S... Hall 3- Observer

H3-S3 Cihangir KARA H3S3 Hüseyin ÖZÇELİK

H3-S3Anil ERMIŞ h3s3 mustafa kemal kaya

H3-S3 Burak Vural H3-S3 Yiğit Ali AKIN

H3-S3 Kamil Yav... H3-S3 Kamil Yavuz

K h3s3 hüseyin şirin

Katılımcılar (12)

Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- HB H3-S3 Burak Vural
- H3 - S3 Nevzat Kaan ALEMDAR
- HC H3-S3 Cihangir KARA
- HY H3-S3 Yiğit Ali AKIN
- HE H3-S3Anil ERMIŞ
- HH H3S3 Hüseyin ÖZÇELİK
- h3s3 hüseyin şirin
- hm h3s3 mustafa kemal kaya
- K K
- MH Moderator: H3-S3.Kerem MERTOĞLU
- HK H3-S3 Kamil Yavuz

Tümünü Sessize Al Daha fazla

# PHOTO GALLERY

Recording

Kalan: 08:09:01

Katılımcılar (10)

Q Ara

- H3 Hall 3... (Ortak oturum sahibi, ben)
- HA H3- Abdulkadir Yağız
- H3 H3- Şevval Gökçe AKDENİZ
- H3 H 3 BÜŞRA AVCI
- HT H3 Tolga CENGİZ
- HS H3- Simge Eşsiz
- HI H3-Emine İrem Kaya , H3-Hilal Yüce
- HG H3-Figen Gölcük Ören
- HF H3-Selahattin Furkan ÖZTÜRK
- IA iPhone Ahu Celebi

Tümünü Sessize Al Daha fazla

Hall 3- Observer

H 3 BÜŞRA AVCI

H3- Simge Eşsiz

H3-Selahattin Fur...

H3-Emine İrem K...

H3-Figen Gölcük...


Kaydediliyor...

Kalan: 08:34:35

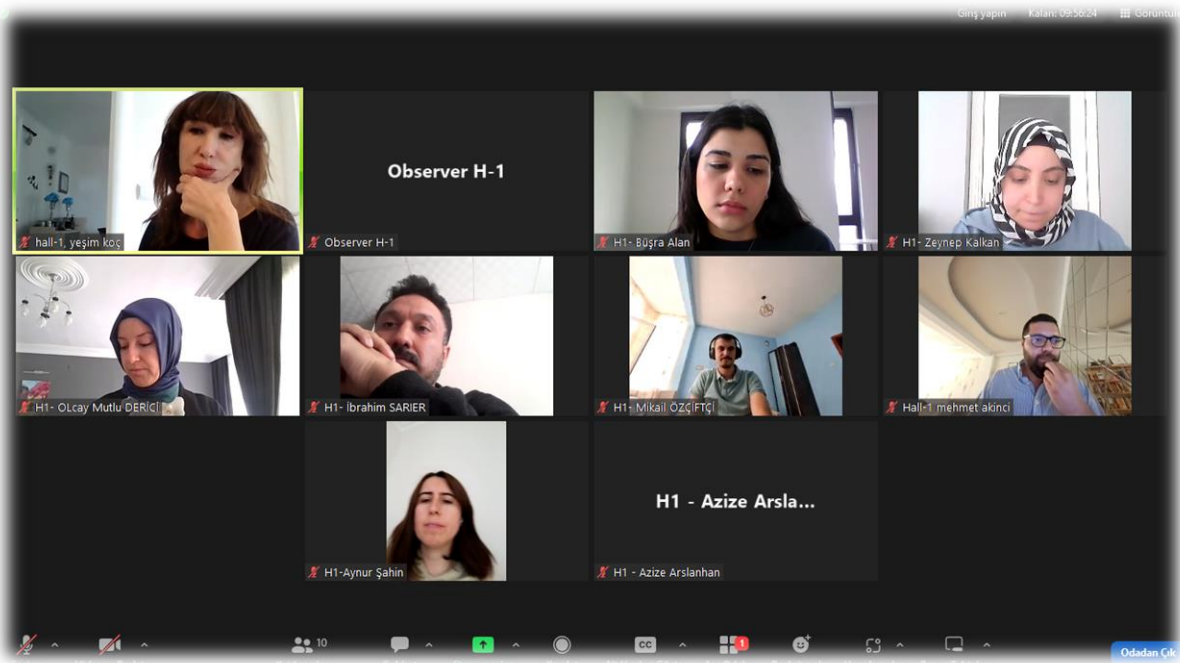
Hall 3- Obser...

H3- Ceyda Ü...

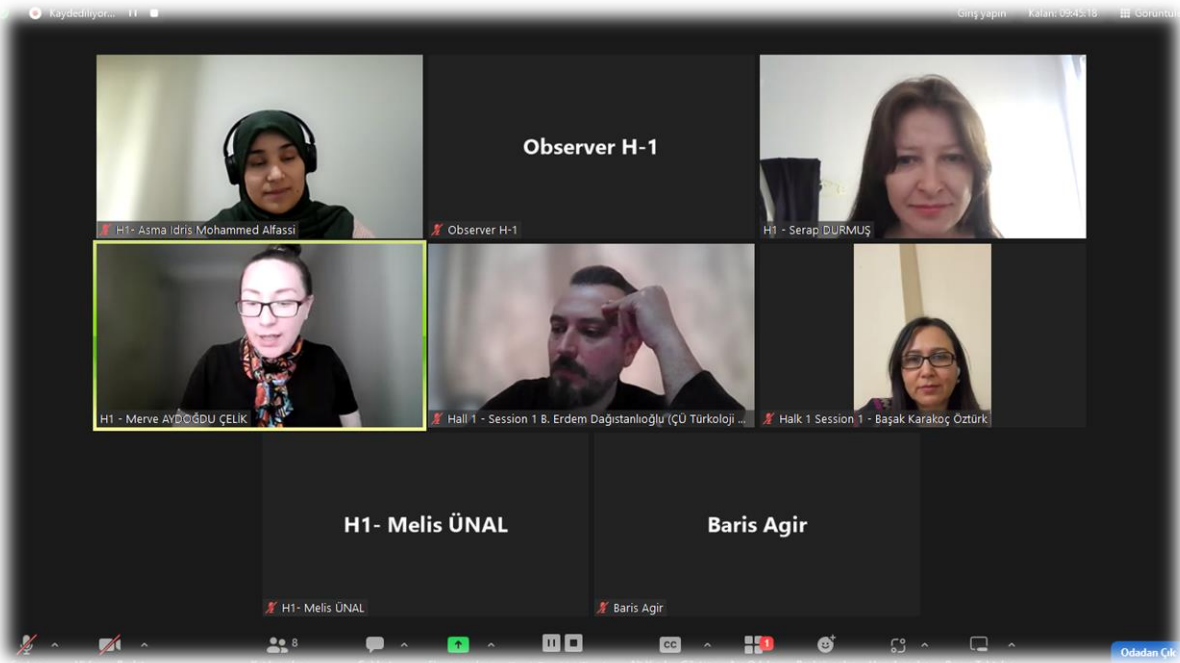
H3-Nazlı BAL...



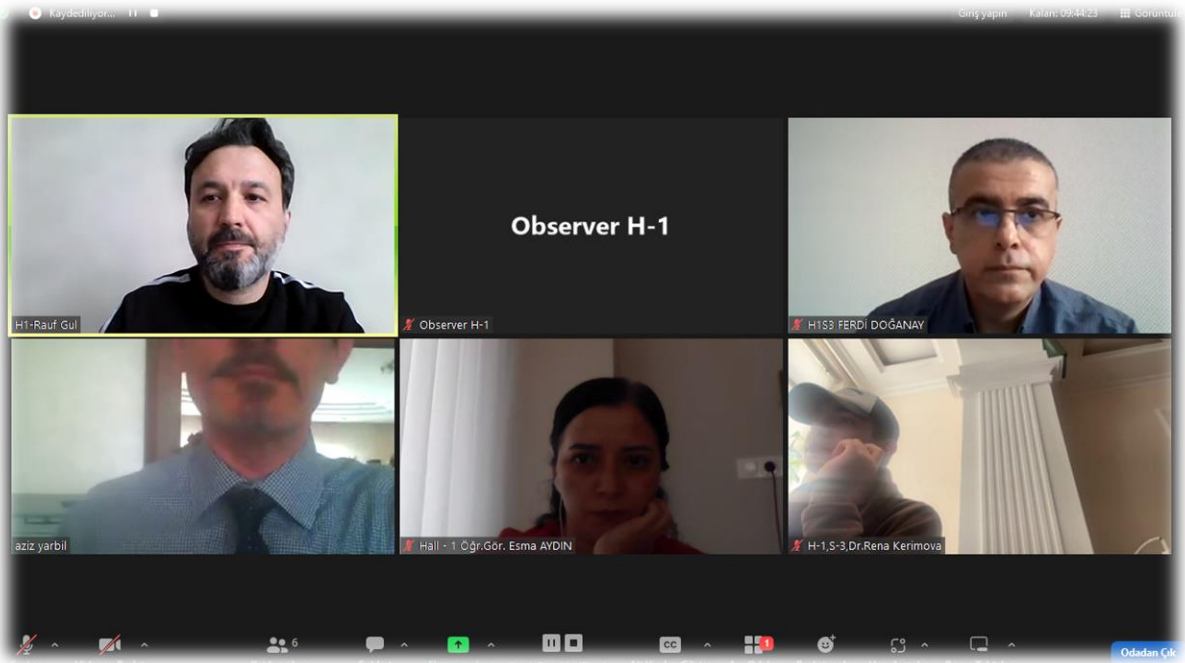
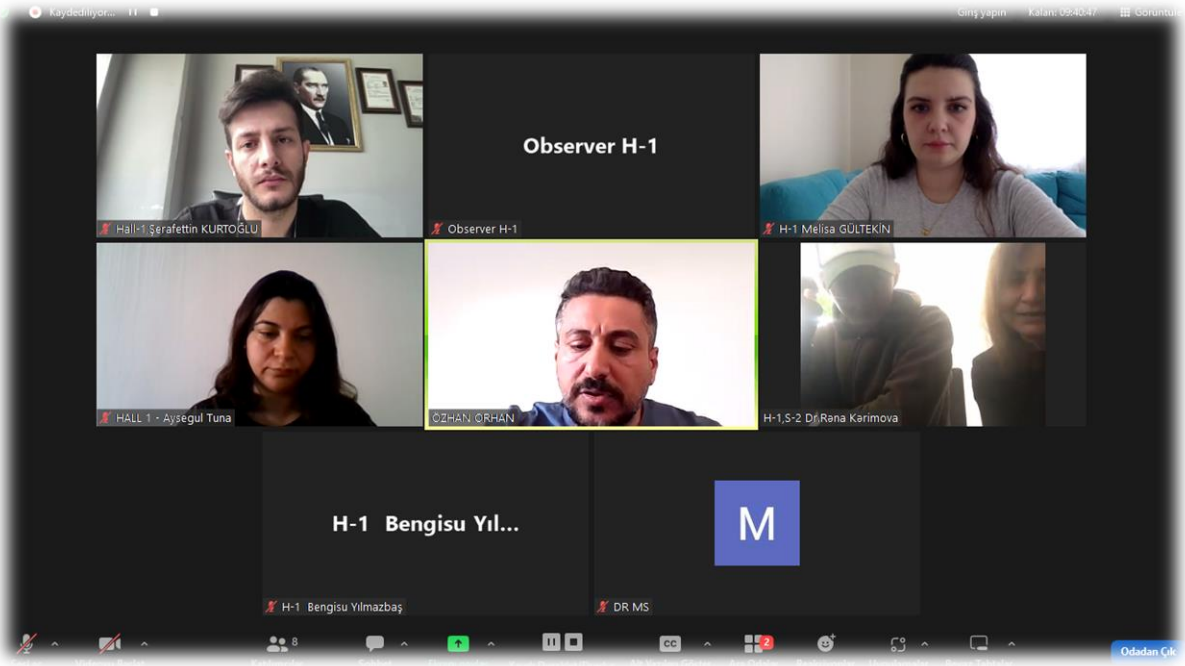
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# PHOTO GALLERY

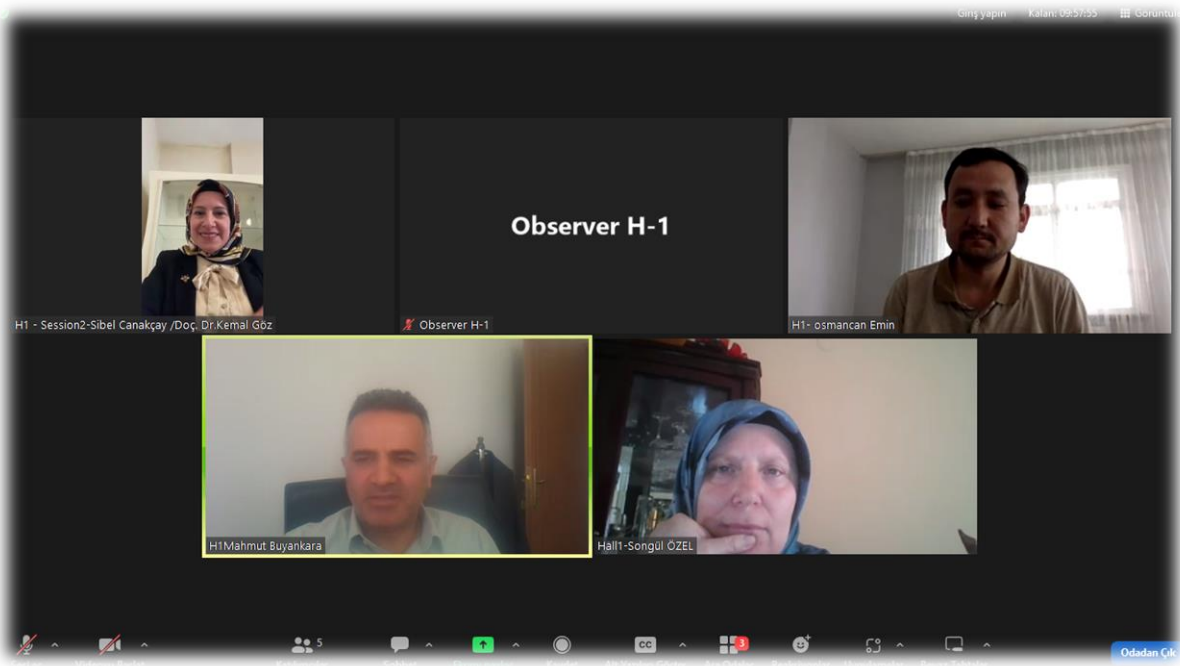
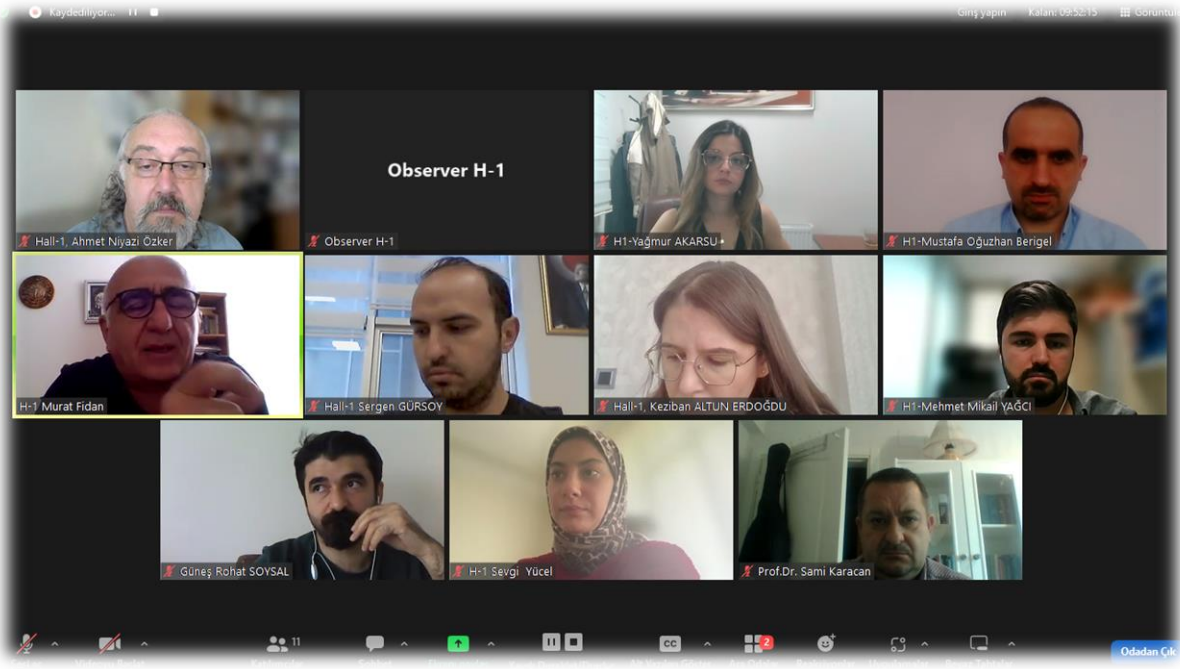


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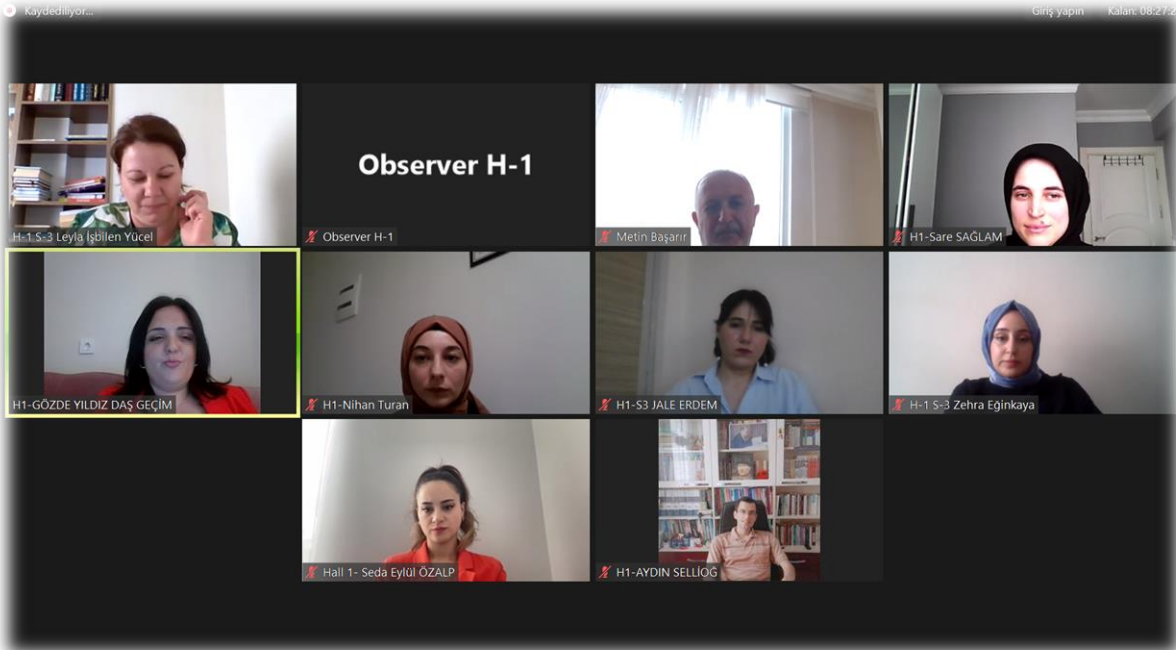




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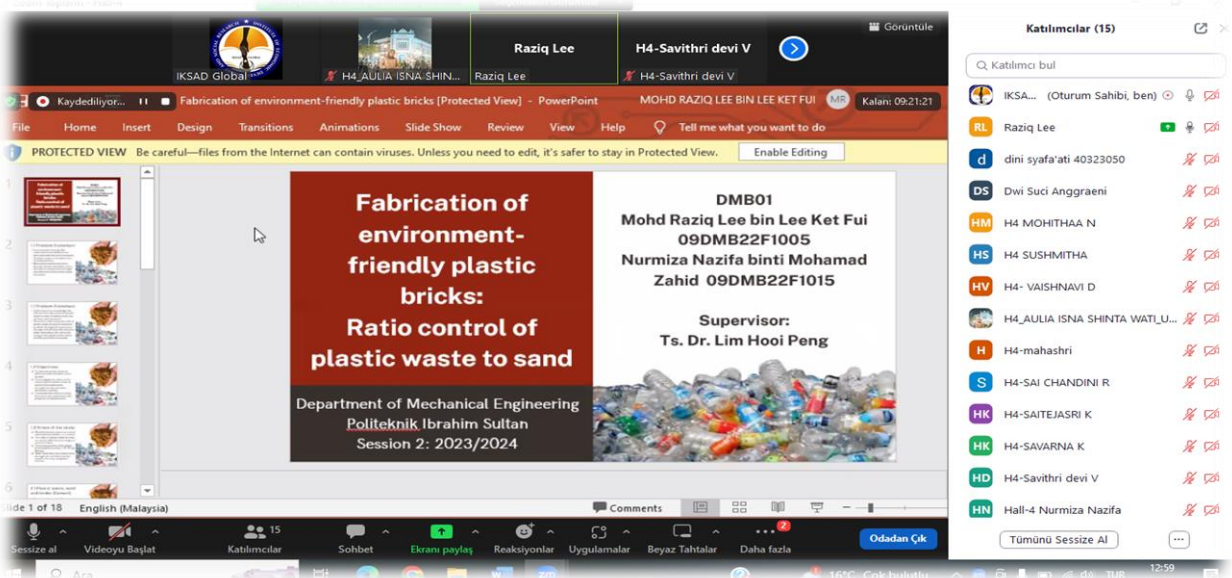
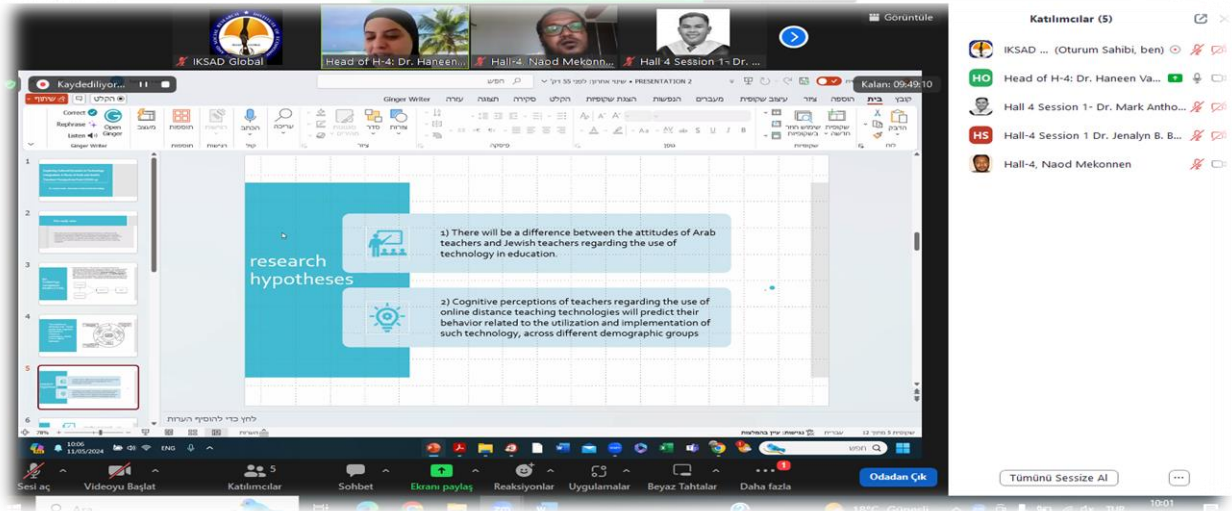
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# PHOTO GALLERY

Kaydediliyor... 11 Kalan: 09:46:10 Görüntüle

Hall 4 session 1 Usman Abdullahi IKSAD Global H4-Dr. Bhavna Choubisa

H4 S2 A.Dinesh... H4 S2 A.Dinesh babu Hall 4- Session 2- Anum Shahzadi Dr. Raf Raf shakil Ansari, H-4 , S-2

H4- Dr. Bhavna... Dr. Madan Regar 2 atanmamış katılımcı

Sessize al Videoyu Başlat Katılımcılar Sohbet Ekranı paylaş Reaksiyonlar Uygulamalar Beyaz Tahtalar Daha fazla Odadan Çık

**Katılımcılar (8)**

- IKSAD ... (Oturum Sahibi, ben)
- Dr. Raf Raf shakil Ansari, H-4 , S-2
- Hall 4 session 1 Usman Abdullahi
- Dr. Madan Regar
- H4 S2 A.Dinesh babu
- H4-Dr. Bhavna Choubisa
- Hall 4- Session 2- Anum Shahzadi
- H4- Dr. Bhavna Choubisa

Tümünü Sessize Al

Kaydediliyor... 11 Kalan: 09:34:10 Görüntüle

SAMRAT BISWAS Imdadul Hossain SAMRAT BISWAS Imdadul Hossain

**Ultrasound assisted extraction of bioactive compounds from Pearl Millet (*Pennisetum glaucum*) and utilization for product development**



Presented by: Samrat Biswas  
Department of Food Science and Technology  
I.K. Gujral Punjab Technical University  
Kapurthala, Punjab, India

Sessize al Videoyu Başlat Katılımcılar Sohbet Ekranı paylaş Reaksiyonlar Uygulamalar Beyaz Tahtalar Daha fazla Odadan Çık

**Katılımcılar (4)**

- IKSAD ... (Oturum Sahibi, ben)
- SAMRAT BISWAS
- (Hall- 4) Neha
- Imdadul Hossain

Tümünü Sessize Al

Kaydediliyor... 11 Kalan: 09:32:10 Görüntüle

H4 Dr Faisal Moderator IKSAD Global Maha swetha . B...

GOWSHALYA T h... H4-RETHIKA V Pavithra.M

Ranjani y

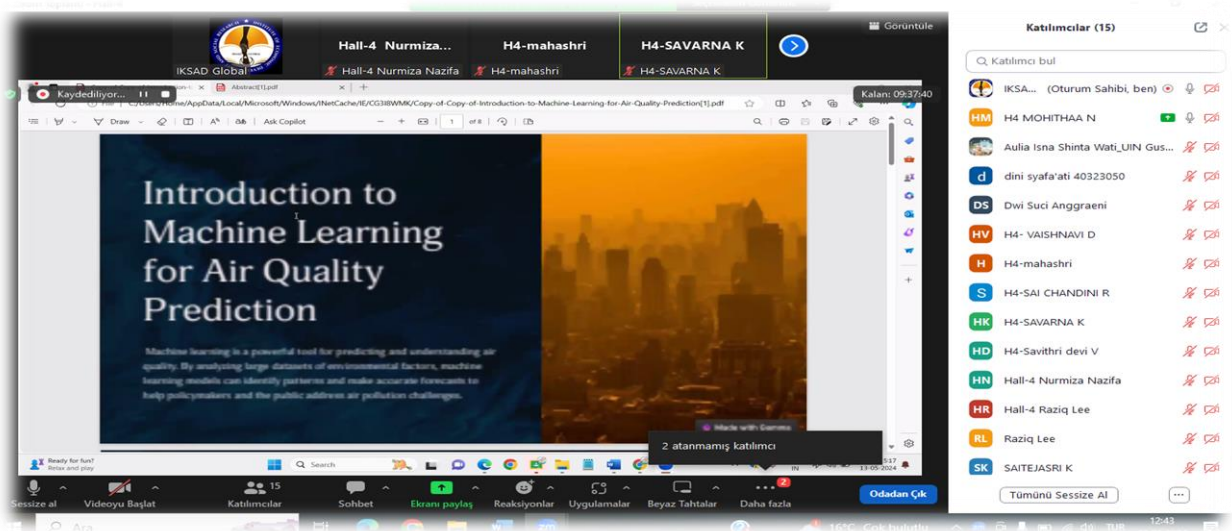
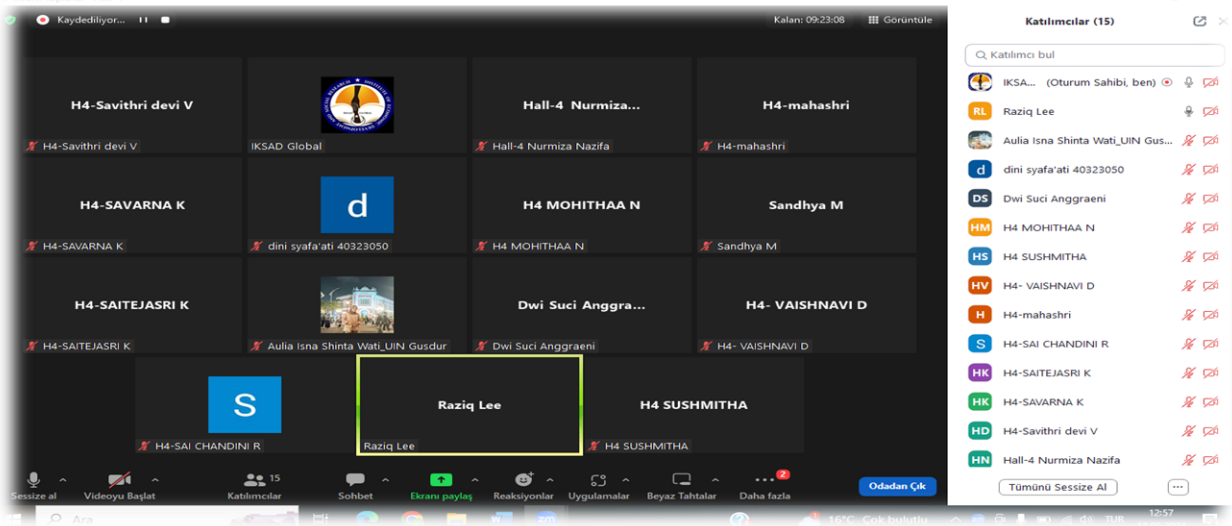
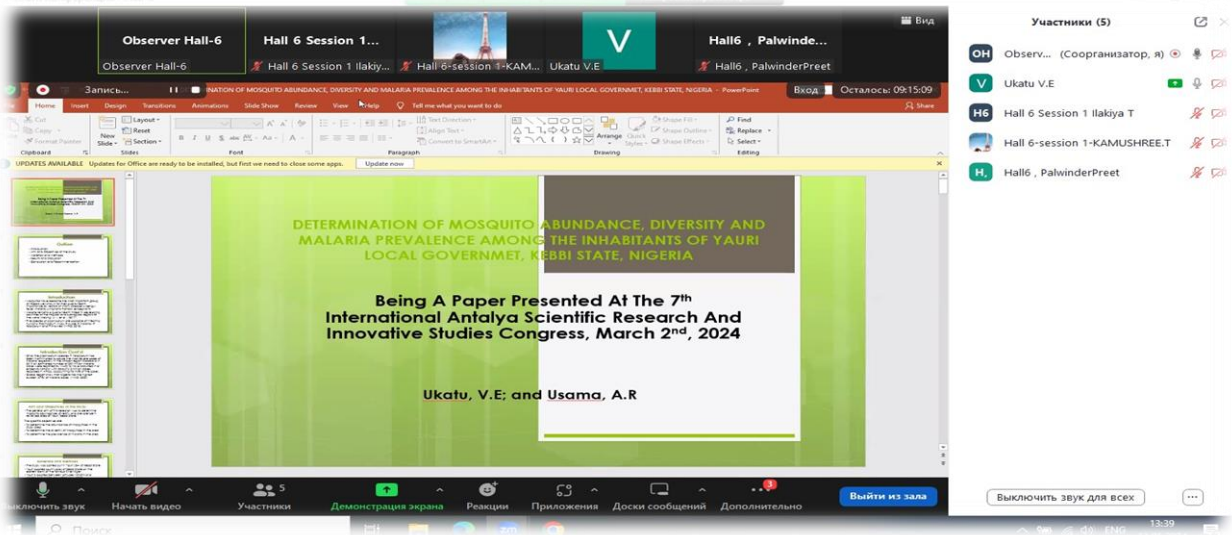
Sesi aç Videoyu Başlat Katılımcılar Sohbet Ekranı paylaş Reaksiyonlar Uygulamalar Beyaz Tahtalar Daha fazla Odadan Çık

**Katılımcılar (7)**

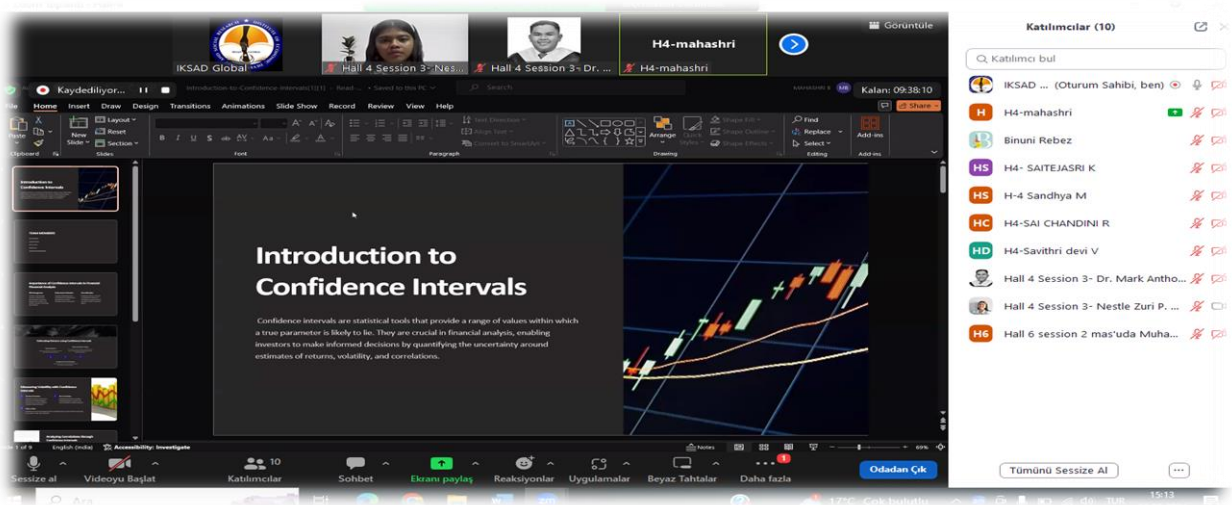
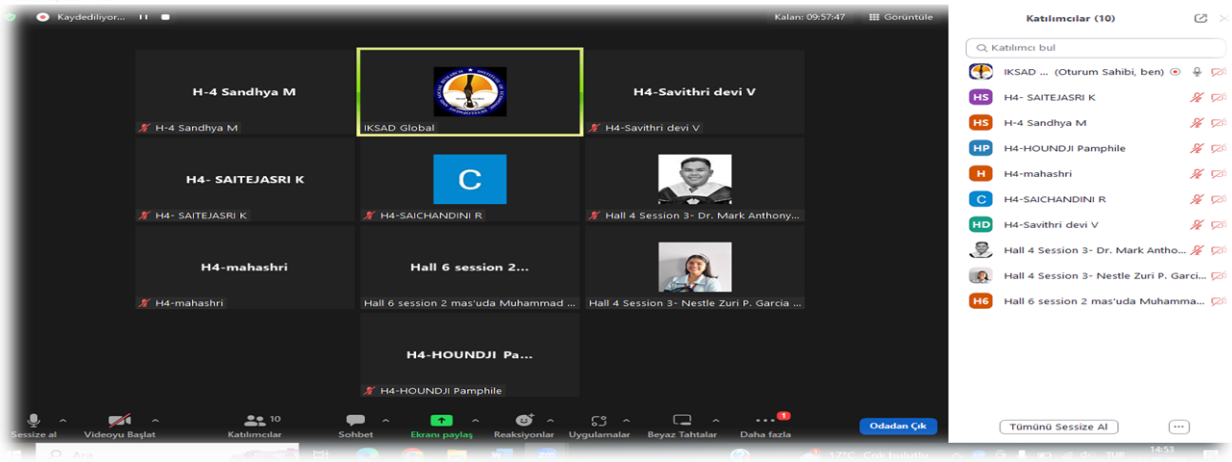
- IKSAD ... (Oturum Sahibi, ben)
- H4 Dr Faisal Moderator
- GOWSHALYA T hall 4
- H4-RETHIKA V
- Maha swetha . B Hall no 4
- Pavithra.M
- Ranjani y

Tümünü Sessize Al

# PHOTO GALLERY



# PHOTO GALLERY



# VII-International Antalya Scientific Research and Innovative Studies Congress

May 11-13, 2024 - Antalya

## CONGRESS PROGRAM Online (with ZOOM Conference)

### IMPORTANT

- To be able to make a meeting online, login via <https://zoom.us/join> site, enter ID instead of "Meeting ID or Personal link Name" and solidify the session.
- The presentation will have **15 minutes** (including questions and answers).
- The Zoom application is free and no need to create an account.
- The Zoom application can be used without registration.
- The application works on tablets, phones and PCs.
- Speakers must be connected to the session **15 minutes before** the presentation time.
- All congress participants can connect live and listen to all sessions.
- During the session, your camera should be turned on at least %70 of session period
- Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.

### TECHNICAL INFORMATION

- Make sure your computer has a microphone and is working.
  - You should be able to use screen sharing feature in Zoom.
  - Attendance certificates will be sent to you as pdf at the end of the congress.
  - Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.
- Before you login to Zoom, indicate hall number and your surname (Hall-1, Merve KIDIRYUZ)**

**PARTICIPATING COUNTRIES:** Türkiye, Vietnam, Malaysia, Pakistan, Cyprus, Canada, Azerbaijan, Romania, North Macedonia, Bosnia and Herzegovina, Serbia, Albania, Nigeria, India, Morocco, Niger, Portugal, Italy, Bulgaria, Saudi Arabia, South Africa, Israel, Belarus, Hungary, Iran, Uzbekistan, Iraq, Indonesia, Russia, Ukraine, Ethiopia, Argentina, Mexico, Philippines, Kosovo, Kazakhstan

<https://us02web.zoom.us/j/86052666988?pwd=ZnoxUtVMGdwQkQ2a1FwODVuYzRIQT09>

Zoom Meeting ID: **860 5266 6988**  
Zoom Passcode: **111213**



# ONLINE PRESENTATIONS

11.05.2024 / Hall-1, Session-1



ANKARA LOCAL TIME



ZOOM ID: 860 5266 6988



10<sup>00</sup> : 12<sup>00</sup>



ZOOM PASSCODE: 111213

## HEAD OF SESSION: Lect. Beyhan Özge YERSEL

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Serap Nur DUMAN	Kırıkkale University TÜRKİYE	TEACHER CANDIDATES' MOTIVATIONS FOR LEARNING ENGLISH
Fatmanur AKINCI Assoc. Prof. Dr. Handan ÜREK Assoc. Prof. Dr. Ayberk BOSTAN SARIOĞLAN	Balıkesir University TÜRKİYE	EMPTY WALLS THAT BREATHE: STEM ACTIVITY
Lect. Beyhan Özge YERSEL Prof. Dr. Ender DURUALP	Ankara University TÜRKİYE	A QUALITATIVE STUDY ON MOTHERS' VIEWS ON CHILDREN'S SEXUAL DEVELOPMENT
Kübra Nur YİĞİT Prof. Dr. Oktay BEKTAŞ	Erciyes University TÜRKİYE	PERCEPTIONS OF PRE-SERVICE SCIENCE TEACHERS ABOUT FLIPPED LEARNING
Mustafa ÖNLEN Prof. Dr. Mustafa ULU	Kütahya Dumlupınar University TÜRKİYE	EXAMINING THE EFFECT OF MATHEMATICAL REASONING SKILLS ON PROBLEM SOLVING SKILLS IN ELEMANTY 4TH GRADE STUDENTS
Ceren ÖZDEMİR Assist. Prof. Dr. Elifcan CESUR	Kırklareli University TÜRKİYE	THE EFFECT OF EMOTION REGULATION-ORIENTED CREATIVE WRITING ACTIVITIES IN ADOLESCENTS WITH SPECIFIC LEARNING DISORDER: CASE STUDY
Rashad ABDULLAYEV	Azerbaijan State University of Economics AZERBAIJAN	UTILIZING ARTIFICIAL INTELLIGENCE (AI) APPLICATIONS FOR ENHANCING TEACHING AND LEARNING PRACTICES IN EDUCATION
Selda IŞKIN ÇOLAK Prof. Dr. Damla BULUT	Ondokuz Mayıs University TÜRKİYE	OPINIONS OF SECONDARY SCHOOL STUDENTS ON TECHNOLOGY-ENHANCED MUSIC EDUCATION

All participants must join the conference 10 minutes before the session time.  
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# ONLINE PRESENTATIONS

11.05.2024 / Hall-2, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. Mehmet BAKIRCI

AUTHORS	AFFILIATION	TOPIC TITLE
Selen Görkem EFEOĞLU Berkay KAYKIN	OYAK Renault Automotive Factories, Department of Global Business Service/After Sales Engineering, Bursa, TÜRKİYE	DIFFERENCES OF USE WITH SUPERCAPACITORS AND BATTERIES IN ELECTRIC VEHICLES
Assoc. Prof. Dr. Berkant DINDAR Assist. Prof. Dr. Mithat ŞİMŞEK Muhammet Talha KARTAL Emine Nur DEMİR	Tokat Gaziosmanpaşa University TÜRKİYE	MANUFACTURING OF EPOXY/CNT AND EXPERIMENTAL INVESTIGATION OF THEIR COMPRESSIVE STRENGTH
Nazlı KÜÇÜKTEPE İsmail YARIÇI	Aydın Adnan Menderes University TÜRKİYE	RFID BASED INVENTORY MANAGEMENT SYSTEM
Egemen ENGİZEK Assoc. Prof. Neyir OZCAN SEMERCİ	Bursa Uludağ University TÜRKİYE	ANALYSIS OF USER TYPE ON TOUCH SURFACES AND DETERMINATION OF TOUCH SENSITIVITY ACCORDING TO USER TYPE
Assist. Prof. Dr. Mehmet BAKIRCI	Karabük University TÜRKİYE	GENERAL OVERVIEW OF ADVANCEMENTS IN AIRFOIL DESIGNS: FROM FLOW CONTROL TO OPTIMIZATION
Assist. Prof. Dr. Mehmet BAKIRCI	Karabük University TÜRKİYE	ENHANCING WIND TURBINE EFFICIENCY: ANALYSIS OF FLOW CHARACTERISTICS IN 3-BLADE DARRIEUS TURBINES
Murat UYSAL Assoc. Prof. Dr. Ahmet FEYZİOĞLU Uğur ÖLMEZ Hüseyin HALİLOĞLU	Teksan Generator, Research and Development Department, Istanbul TÜRKİYE Marmara University TÜRKİYE Teksan Generator, Research and Development Department, Istanbul TÜRKİYE Marmara University TÜRKİYE	COMPRATIVE EVALUATION OF LITHIUM BATTERY ALTERNATIVES FOR ENERGY STORAGE SYSTEMS USING THE ANALYTIC HIERARCHY METHOD
Assoc. Prof. Dr. Durmuş Ali BİRCAN İbrahim ÇETİNKAYA Yılmaz ERBİL	Çukurova University TÜRKİYE Çukurova University TÜRKİYE SECANT Technology Development Industry and Trade Inc. Eskişehir TÜRKİYE	DELAMINATION INVESTIGATION AND OPTIMIZATION IN DRILLING OPERATIONS OF GLASS FIBRE REINFORCED PLASTICS (GFRP) COMPOSITES
Dr. Halime ERZEN YILDIZ Prof. Dr. Berna OTO	Van Yüzüncü Yıl University TÜRKİYE	INVESTIGATION OF PHOTON INTERACTION PARAMETERS OF VINCA ALKALOIDS

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-3, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Çağrı Çağlar SİNMEZ

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Şerif ÖZLÜ	Gaziantep University, TÜRKİYE	HAMMING DISTANCE MEASURES BASED ON BIPOLAR VALUED TYPE-2 FUZZY SETS
Assist. Prof. Dr. Ebru AYDIN Teslime ÖZTÜRK ÇETİN	Süleyman Demirel University TÜRKİYE	FOOD AND NON-FOOD APPLICATIONS OF OPUNTIA SPP. TITLE: 'OPUNTIA SPP. SNACKS'
Lect. Seher KAVAK Assoc. Prof. Dr. Yeliz PEKERŞEN	Munzur University TÜRKİYE Necmettin Erbakan University TÜRKİYE	GUERILLA MARKETING STRATEGIES IN FOOD AND BEVERAGE BUSINESSES
Lect. Seher KAVAK Assoc. Prof. Dr. Yeliz PEKERŞEN	Munzur University TÜRKİYE Necmettin Erbakan University TÜRKİYE	NEUROMARKETING STRATEGIES: AN ASSESSMENT FOR THE FOOD AND BEVERAGE INDUSTRY
Assoc. Prof. Dr. Çağrı Çağlar SİNMEZ	Erciyes University TÜRKİYE	A NOVEL APPROACH IN FOOD ETHICS: NEW OMNIVORISM AND OMNIVORES
Assist. Prof. Prof. Ayşegül YÜCEL Prof. Dr. Musa SARIKAYA	İskenderun Technical University TÜRKİYE İnönü University TÜRKİYE	EFFECT OF TEMPERATURE ON LITHIUM RECOVERY FROM BORON WASTE
Ali Berk DEMİR Eylem KORKMAZ YENEN	Hassan Tekstil A.S. İstanbul TÜRKİYE	UNDERSTANDING THE IMPACT OF INORGANIC FILLERS ON SOUND TRANSMISSION LOSS OF POLYPROPYLENE-COATED NONWOVEN POLYMER COMPOSITES
MSc. Ayşenur ÖZER Prof. Dr. Sema SALGIN Prof. Dr. Uğur SALGIN	Sivas Cumhuriyet University TÜRKİYE	THE EFFECT OF CHITOSAN NANOPARTICLES ON BIOCATALYST PERFORMANCE IN CARRIER-FREE IMMOBILIZED ENZYME SYSTEMS
Gülsüm Deniz YILMAZ Prof. Dr. Şima ŞAHİNDURAN	Burdur Mehmet Akif Ersoy University TÜRKİYE	CLINICAL USE OF PARAOXANASE ENZYME IN ANIMALS

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-4, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Haneen Vasel

AUTHORS	AFFILIATION	TOPIC TITLE
Anastasia Dubinets Irina Kopytich	Baranovich State University BELARUS	LEXICAL AND PHONETIC FEATURES OF THE NIGERIAN VARIANT OF ENGLISH
Dexter Erwin Darmawan Necflonessa J. Samiun	Keningau Vocational College MALAYSIA	POSITIVE AFFIRMATION VIA HANDDRAWN POSTERS TO HELP SPREAD MENTAL HEALTH AWARENESS
Le Thi Hong Nhung	Nha Trang University VIETNAM	PROPOSING A MODEL OF EXPERIENTIAL EDUCATION THROUGH SOCIAL IMPACT PROJECTS IN VIETNAM
Le Thi Hong Nhung	Nha Trang University VIETNAM	THE PROBLEM OF COMPETITION FOR CLEAN AGRICULTURAL PRODUCTS AND SOLUTION FOR AN INTEGRATED VALUE-ADDED MODEL FOR CLEAN AGRICULTURE IN KHANH HOA, VIETNAM
Dr. Haneen Vasel	Haifa University ISRAEL	EXPLORING CULTURAL DYNAMICS IN TECHNOLOGY INTEGRATION: A STUDY OF ARAB AND JEWISH TEACHERS' PERSPECTIVES POST-COVID-19
Dr. Haneen Vasel	Haifa University ISRAEL	UNVEILING CULTURAL INFLUENCES ON PEDAGOGICAL IDEOLOGY: A CASE STUDY OF EDUCATIONAL CHANGE IN AN ARAB SOCIETY IN ISRAEL
Ishwara P Naod Mekonnen	Mangalore University INDIA	ETHICAL CLIMATE AND ETHICAL DECISION-MAKING: THE MEDIATING ROLE OF MORAL INTENSITY
Dr. Jenalyn B. Boctot Dr. Alicia P. Cabatingan Dr. Mark Anthony N. Polinar	Mabolo National High School, Faculty of Senior High School PHILIPPINES Southern Philippines University PHILIPPINES Mabolo National High School, Faculty of Senior High School PHILIPPINES	CAREER INTEREST AND READINESS AMONG GRADE 10 STUDENTS OF A PRIVATE UNIVERSITY IN CEBU CITY, PHILIPPINES

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-5, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Muhammad Faisal

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Faiz Muhammad Shaikh Muhammad Zafar Wassan Dr. Mazharuddin Keerio Rasool Bux Junejo	Larkano University MALAYSIA Conservator Forest -Larkana MALAYSIA Wheat Research Centre Sakrand PAKISTAN Director Agri.Extension-Government of Sindh PAKISTAN	IMPACT OF CLIMATE CHANGE AND SMART AGRICULTURE AND IMPACT ON YIELD PERFORMANCE OF DIFFERENT WHEAT VARIETIES IN SINDH PAKISTANI: A CASE STUDY OF SYED KHURSHEED AHMED SHAH MODEL FARM SALEH PAT SUKKUR- SINDH
Dr. Muhammad Faisal	Ministry of Human Rights Commission, PAKISTAN	THE MOST EFFECTIVE METHOD TO BREAK DOWN THE DATUM ASSUMING IN MANUALLY WRITTEN STRUCTURE DEVICES' EXPECTATION'S
Muhammad Mateen Afzal Awan	University of Management and Technology PAKISTAN	REFINING MAXIMUM POWER POINT TRACKING: OPTIMIZING THE PERTURB AND OBSERVE ALGORITHM FOR STANDALONE SOLAR PHOTOVOLTAIC SYSTEMS
Priyam Sarmah Assist. Prof. Nitul Ali	Gauhati University INDIA Department of Zoology, Rangia College INDIA	ENVIRONMENTAL DETERMINATES OF GUT MICROBIOTA DIVERSITY: A CROSS CULTURAL STUDY
Tehmena Rashid Dr. Muhammad Mazhar Iqbal	Agriculture Mechanization Research Institute (AMRI) PAKISTAN Directorate General of Agriculture Punjab, Department of Agriculture (On Farm Water Management) PAKISTAN	INNOVATIVE DESIGN AND PERFORMANCE EVALUATION OF TRACTOR-DRIVEN CARROT WASHER TO IMPROVE CROP QUALITY AND LABOR EFFICIENCY
Nazish Rashid Dr. Muhammad Mazhar Iqbal Tehmena Rashid Dr. Maria Gillani	Islamia University Bahawalpur PAKISTAN Directorate General of Agriculture Punjab, Department of Agriculture (On Farm Water Management) PAKISTAN Agriculture Mechanization Research Institute (AMRI) PAKISTAN Islamia University Bahawalpur PAKISTAN	ANALYSIS OF URBAN MOBILITY PATTERNS USING YOLO V8: AN INNOVATIVE APPROACH FOR URBAN PLANNING AND TRAFFIC MANAGEMENT
Mustafizur M. Rahman Assist. Prof. Dr. Raja Mohammad Latif	International Islamic University MALAYSIA Prince Mohammad Bin Fahd University SAUDI ARABIA	ENVIRONMENTAL VARIABILITY AS TOOL FOR FISHERIES RESOURCE MANAGEMENT $\beta^*g^*$ -COMPACT AND $\beta^*g^*$ -LINDELOF TOPOLOGICAL SPACES

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-6, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Subhashish Dey

AUTHORS	AFFILIATION	TOPIC TITLE
Balasubramani G L Rinky Rajput Manish Gupta Pradeep Dahiya Jitendra K Thakur Rakesh Bhatnagar Abhinav Grover	Jawaharlal Nehru University INDIA Jawaharlal Nehru University INDIA Jawaharlal Nehru University INDIA National Institute of Plant Genome Research INDIA Jawaharlal Nehru University INDIA Banaras Hindu University INDIA Jawaharlal Nehru University INDIA	STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS
Subhashish Dey	Gudlavalleru Engineering College INDIA	STRENGTH AND DURABILITY PROPERTIES OF HIGH STRENGTH CONCRETE BY REPLACING SAND WITH ROBO SAND AND CEMENT WITH FLY-ASH AND USING MINERAL ADMIXTURES
Zineb MOUJOURD Abdeslam EL BOUARI Omar TANANE	Hassan II University of Casablanca MOROCCO	CLAY BRICKS WASTE-BASED GEOPOLYMER FOAMS FOR THERMAL INSULATION IN BUILDING SECTOR
R. Devi Dr. B. Jayanthi Dr. M. Komala	Annamalai University INDIA Annamalai University INDIA Vels Institute of Science INDIA	OPTIMIZATION OF PHARMACEUTICAL FORMULATION USING BOX BEHNKEN DESIGN
R. Devi Dr. B. Jayanthi Dr. M. Komala	Annamalai University INDIA Annamalai University INDIA Vels Institute of Science INDIA	NANO-DELIVERY SYSTEMS AS A PROMISING THERAPEUTIC POTENTIAL FOR EPILEPSY
Abdelmoutalib BENFRID Mohammed CHATBI Zouaoui.R HARRAT Mohamed BACHIR BOUIADJRA Abdeljalil BENBAKHTI	LS'MAGCTP (F.T – UDL – SBA- Algeria). ATRST ALGERIA	THE INFLUENCE OF GLASS POWDER ON THE BENDING OF A REINFORCED CONCRETE BEAM
P. Jeyaprabha G. Saravanan	Karpagam Academy of Higher Education INDIA	AN OVERVIEW OF NANOSTRUCTURED LIPID CARRIERS AS A DRUG DELIVERY PLATFORM
Marija Radmilović-Radjenović Branko Kolarić Darko Vasiljević Branislav Radjenović	Belgrade University SERBIA	MATERIAL PLATFORM FOR INTEGRATED QUANTUM LIGHT SOURCES

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-1, Session-2



ANKARA LOCAL TIME



ZOOM ID: 860 5266 6988



12<sup>30</sup> : 14<sup>30</sup>



ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Yeşim KOÇ

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Yeşim KOÇ	Sinop University TÜRKİYE	THE EFFECTS OF STARVATION IN DIFFERENT SIZES OF TENEBRIO MOLITOR L. 1758 (COLEOPTERA: TENEBRIONIDAE) LARVAE ON ADULT DEFORMATION RATE
Azize ARSLANHAN Metin BAŞARIR	Sakarya University TÜRKİYE	ON MAPS SATISFYING ENRICHED CONDITION $C_\gamma$
Assoc. Prof. Dr. Aynur ŞAHİN Zeynep KALKAN	Sakarya University TÜRKİYE	SOME FIXED POINT RESULTS FOR GENERALIZED NONEXPANSIVE MAPPINGS IN HYPERBOLIC METRIC SPACES
Büşra ALAN Prof. Dr. Menekşe Şeden TAPAN BROUTIN	Bursa Uludağ University TÜRKİYE	SECONDARY SCHOOL STUDENTS' VIEWS ON INFINITY: HILBERT'S INFINITE HOTEL PARADOX
Sultan ERDUR İbrahim SARIER	Gaziantep University TÜRKİYE	INVARIANCE OF SOME SPECIAL TYPES OF CURVES UNDER TRANSFORMATION IN ROBOT KINEMATICS
Sultan ERDUR Mikail ÖZÇİFTÇİ	Gaziantep University TÜRKİYE	EFFECT OF THE DELAY CONSTANT ON EXISTENCE OF PERIODIC SOLUTIONS OF A THIRD ORDER MULTIPLE DELAY NONLINEAR DIFFERENTIAL EQUATION
Olca Mutlu DERİCİ Hatice KARAER	Ondokuz Mayıs University TÜRKİYE	REVIEW OF THE STUDIES CONDUCTED RELATED TO THE ZERO WASTE PROJECT
Mehmet AKINCI Prof. Dr. Ömer Faruk ÇETİN	Erzincan Binali Yıldırım University TÜRKİYE Erzincan Binali Yıldırım University TÜRKİYE	THE EFFECT OF SCHOOL PRINCIPALS' TRANSFORMATIONAL LEADERSHIP BEHAVIOR ON PRIMARY MATHEMATICS TEACHERS' MOTIVATIONS

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-2, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Observer

AUTHORS	AFFILIATION	TOPIC TITLE
Ahmet Serdar ÇOBAN İhsan Tolga MEDENİ Prof. Dr. Tunç Durmuş MEDENİ Prof. Dr. Mehmet Serdar GÜZEL Dr. Fatih EKİNCİ	Ankara Yıldırım Beyazıt University TÜRKİYE	OPTIMAL APPROACH TO THE EMPLOYMENT OF OFFICE PERSONNEL IN THE PUBLIC SECTOR: A STUDY ON MANAGEMENT INFORMATION SYSTEMS AND LABOR PEACE
Batuhan KAMADAN Res. Assist. Melike ARTAR Prof. Dr. Oya ERDİL	Gebze Technical University TÜRKİYE	THE RELATIONSHIP BETWEEN WORK STRESS AND TURNOVER INTENTION AMONG BLUE-COLLAR EMPLOYEES
Betül ACAR	Nişantaşı University TÜRKİYE	THE IMPACT OF SUSTAINABILITY CONCEPT ON LUXURY BRAND STRATEGIES
Assoc. Prof. Dr. Esen ŞAHİN Alimu AZIGULI	Selçuk University TÜRKİYE	EXPLORING DIFFERENCES IN SOCIAL MEDIA MARKETING PRACTICES BETWEEN B2B AND B2C COMPANIES: A LITERATURE-BASED STUDY AND BIBLIOMETRIC ANALYSIS
Ayşe Betül KÜÇÜKTÜFEKÇİ Prof. Dr. İdris VARICI	Ondokuz Mayıs University TÜRKİYE	THE RELATIONSHIP BETWEEN COMPANY TARGETS AND MANIPULATION: A STUDY ON BIST COMPANIES
Orhan Kemal ELÇİ Prof. Dr. Serdar BOZKURT	Yıldız Technical University TÜRKİYE	A QUALITATIVE STUDY ON THE USE OF DIGITAL TECHNOLOGICAL TRANSFORMATION IN HUMAN RESOURCES AND RECRUITMENT PROCESSES
İbrahim Can KAÇAR Prof. Dr. Gökhan COŞKUN	Kütahya Dumlupınar University TÜRKİYE	THE ASSESSMENT OF THE SHOP NO. 1 IN AIZANOI IN THE LIGHT OF COINS
Sümeyye ÖZTÜRK Serdar BOZKURT	Yıldız Technical University TÜRKİYE	THE ROLE OF JOB MEANINGFULNESS IN THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND INTENTION TO LEAVE

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# ONLINE PRESENTATIONS

11.05.2024 / Hall-3, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Yunus Emre AYDIN

AUTHORS	AFFILIATION	TOPIC TITLE
Lect. Ümit YÜZBAŞIOĞLU Tuğçe OKUR Rabia AKBULUT Lect. Cansu YILDIRIM	Toros University TÜRKİYE	INVESTIGATION OF POSTURAL HABITS AND AWARENESS LEVELS OF ACADEMIC STAFF: PILOT STUDY
Dr. Yunus Emre AYDIN Prof. Dr. Binnaz KIRAN	Ministry National Education, Hatay, TÜRKİYE Mersin University TÜRKİYE	INVESTIGATION OF SUICIDE PROBABILITY AND PSYCHOLOGICAL FLEXIBILITY OF ADOLESCENTS AFTER THE EARTHQUAKE
Dr. Yunus Emre AYDIN	Ministry National Education, Hatay, TÜRKİYE	BIBLIOMETRIC ANALYSIS OF POSTGRADUATE THESIS STUDIES ON 'SUPERVISION' IN TÜRKİYE
Assoc. Prof. Dr. Yasemin ÇÖLGEÇEN Cansu DENİZ POYRAZ	Yalova University TÜRKİYE	EFFECTS OF DISASTERS ON MENTAL HEALTH, EXAMINING THE EFFECT OF FOCUS GROUP STUDY WITH YOUNG PEOPLE AFFECTED BY THE FEBRUARY 2023 EARTHQUAKE ON MENTAL HEALTH AND QUALITY OF LIFE
Hayriye GÜLER Assist. Prof. Dr. Mustafa Batuhan KURTOĞLU	Hasan Kalyoncu University TÜRKİYE	EXAMINATION OF SOCIAL ANXIETY DISORDER IN TERMS OF SOCIO-DEMOGRAPHIC CHARACTERISTICS
Nuray AŞANTUĞRUL	Independent Researcher Amasya TÜRKİYE	INVESTIGATION OF PSYCHOLOGICAL COUNSELING THEORIES IN TERMS OF MULTICULTURAL PSYCHOLOGICAL COUNSELING
Nuray AŞANTUĞRUL	Independent Researcher Amasya TÜRKİYE	INVESTIGATION OF EXPERIMENTAL GRADUATE THESIS ON PEER BULLYING AMONG SECONDARY SCHOOL STUDENTS
Ömer AYDIN Erman DOĞAN Ezgi SEVİLMİŞ Çiğdem KARAGÜLMEZ SAĞLAM	Girne American University TURKISH REPUBLIC OF NORTHERN CYPRUS	EFFECT OF ATTENTION LEVELS ON REACTION TIME IN FENCING

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# ONLINE PRESENTATIONS

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## HEAD OF SESSION: Marija Radmilović-Radjenović

AUTHORS	AFFILIATION	TOPIC TITLE
Sourav Rana Barinderjit Singh	I. K. Gujral Punjab Technical University INDIA	ULTRASOUND ASSISTED EXTRACTION OF BIOACTIVE COMPOUND FROM SORGHUM (SORGHUM BICOLOR) AND UTILIZATION FOR PRODUCT DEVELOPMENT
Maimuna Sidi Muhammad Innocent Ojeba Musa Sanjoy Kumar Pal	Skyline University NIGERIA	APPLICATION OF MICROBIAL SYSTEM IN WASTE MANAGEMENT AND USE OF MICROBIAL SYSTEM IN POLLUTION CONTROL
Marija Radmilović-Radjenović Nikola Bošković Branislav Radjenović	Belgrade University SERBIA	THREE-DIMENSIONAL MODELING OF RADIOFREQUENCY ABLATION THERAPIES
Nitika Saini Barinderjit Singh	I.K. Gujral Punjab Technical University INDIA	KINNOW WASTE UTILIZATION: ESSENTIAL COMPOUNDS, EXTRACTION AND UTILIZATION
HALIMATU IBRAHIM Ahmed Lawal Mashi Abubakar sani	Musa Yar'adua University NIGERIA	A REVIEW ON BIODIESEL PRODUCTION USING EGG SHELL AS CATALYST
Ephesus O. Fatunmbi Stephen O. Are	Federal Polytechnic NIGERIA	FLOW AND HEAT TRANSFER DYNAMICS OF TANGENT HYPERBOLIC NANOFUID OVER A RIGA PLATE SUBJECT TO THERMAL RADIATION AND JOULEAN HEATING
Yousra Taoudi Hicham Oudghiri Hassani Souad Rakass Mohammed Lachkar	Sidi Mohamed Ben Abdellah University MOROCCO	INVESTIGATION OF PHOTOCATALYTIC DEGRADATION OF TOXIC DYE IN AQUEOUS SOLUTION IN THE PRESENCE OF CDMO <sub>4</sub> NANOCATALYSTS
EL BRAHIMI Rajae BAGHOUZ Asmae BARI Amina	Dhar El Mahraz Sidi Mohammed Ben Abdallah University MOROCCO	EXTRACTION OF ESSENTIAL OILS FROM TWO WILD AND DOMESTICATED PLANTS OF THE OREGANO SPECIES COLLECTED IN THE TAZA REGION

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11.05.2024 / Hall-5, Session-2

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ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Nguyen Thanh Binh

AUTHORS	AFFILIATION	TOPIC TITLE
ZERARI Sami RAIS Safa	Biskra University ALGERIA Mohamed El Bachir El Ibrahimi University ALGERIA	THE GLOBALISATION OF SAHARAN VERNACULAR HERITAGE. THE CASE OF THE M'ZAB VALLEY IN ALGERIA
Orkhan Akif oglu Nabiyev	Azerbaijan University of Language AZERBAIJAN	ENERGY DIPLOMACY IN THE SOUTH CAUCASUS: POST-SECOND KARABAKH WAR DYNAMICS AND U.S. ROLE
Md. Ashraful Amin Jahid Hasan Rana Abdul kader Jelane	Rajshahi University BANGLADESH	RED SEA SECURITY: SAFEGUARDING MARITIME ROUTES AND ENSURING STABILITY IN A VITAL GEOSTRATEGIC REGION
Nguyen Thanh Binh Ly Minh Kha	Can Tho University VIETNAM	PROS AND CONS OF MANGROVE CO- MANAGEMENT IN THE MEKONG DELTA OF VIETNAM
Ramya Prathap Sherlin Kirubha Aravindhan Thiyaga Rajan Karthikeyan Elumalai	Saveetha Institute of Medical and Technical Sciences INDIA	THE MIDDLE EAST'S GROWING CANCER RISK: A REVIEW OF THE LITERATURE AND STRATEGIES TO ADDRESS ITS CHALLENGES
Jenifer Alat Stephen Mirkhamidova Sevara Mirmakhmudovna	Tashkent Medical Academy UZBEKISTAN	SILENT WITNESS: RE-EXAMINING THE EFFICACY OF BOYCOTTING IN GENOCIDE PREVENTION
Alabi Remilekun. E. Omosigho Donatus	Department of Statistics, The Federal Polytechnic NIGERIA	COMPARATIVE ANALYSIS OF THE GUBERNATORIAL ELECTION IN EKITI STATE NIGERIA (A CASE STUDY OF YEAR 2018 AND 2022)

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ZOOM ID: 860 5266 6988

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## HEAD OF SESSION: Ananda Majumdar

AUTHORS	AFFILIATION	TOPIC TITLE
Ananda Majumdar	Alberta University CANADA	FOSTERING INDUSTRIAL SUPPLY CHAIN MANAGEMENT
Monica Alina Toma	Bucharest University of Economic Studies ROMANIA	THE CONSTRUCTION OF SPACE IN PABLO NERUDA'S MODERN LOVE SONNETS
Dr. Artan POGONI MSc. Junida POGONI	Barleti University ALBANIA	EVALUATION OF COUNTERMOVEMENT JUMP IN 16 YEARS OLD GIRLS VOLLEYBALL PLAYERS
Ajayi, Olayemi T. Akande-Adedeji Olufunke T.	Department of Art and Design, The Federal Polytechnic NIGERIA	ENHANCING THE CURRICULUM DELIVERY IN DIGITAL PHOTOGRAPHY IN NIGERIAN POLYTECHNICS: SMARTPHONE PHOTOGRAPHY AS A VIABLE TOOL
Souleymane ISSA MAHAMADOU Issa ISSAKA BASSAKOYE	Abdou Moumouni University of Niamey NIGER	LEGAL RESPONSES AND THE ROLE OF DIGITAL EVIDENCE IN CRIMINAL JUSTICE SYSTEMS
Issa ISSAKA BASSAKOYE Souleymane ISSA MAHAMADOU	Abdou Moumouni University of Niamey NIGER	AN EXAMINATION OF MIGRATION AND INTEGRATION POLICIES IN THE ERA OF MULTICULTURALISM
Ajayi, Olayemi T. Akande-Adedeji, Olufunke T.	Department of Art and Design, The Federal Polytechnic NIGERIA	CARVING A NEW NICHE: REJUVENATING ART EDUCATION IN NIGERIAN POLYTECHNICS THROUGH STRATEGIC CURRICULUM DELIVERY AND LEADERSHIP INNOVATIONS
Pooja Kumari Dr. Preet Kumari	Dayalbagh Educational Institute INDIA	SELF EFFICACY AND EMOTIONAL INTELLIGENCE AS PREDICTORS OF PSYCHOLOGICAL WELL-BEING AMONG COLLEGE STUDENTS

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# ONLINE PRESENTATIONS

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## HEAD OF SESSION: Lect. Oğuzhan HARMANDAOĞLU

AUTHORS	AFFILIATION	TOPIC TITLE
Lect. Oğuzhan HARMANDAOĞLU Res. Assist. Yusuf SEÇGİN Res. Assist. Seren KAYA Assoc. Prof. Dr. Deniz ŞENOL Assoc. Prof. Dr. Zülal ÖNER Prof. Dr. Ömer ÖNBAŞ	Kastamonu University TÜRKİYE Karabük University TÜRKİYE İstanbul Beykent University TÜRKİYE Düzce University TÜRKİYE İzmir Bakırçay University TÜRKİYE Düzce University TÜRKİYE	GENDER PREDICTION USING MACHINE LEARNING ALGORITHMS AND ARTIFICIAL NEURAL NETWORKS WITH PARAMETERS OBTAINED FROM SINUS SPHENOIDALES VIA COMPUTED TOMOGRAPHY
Lect. Oğuzhan HARMANDAOĞLU Res. Assist. Seren KAYA Lect. Oğuzhan ÖZTÜRK Assoc. Prof. Dr. Deniz ŞENOL	Kastamonu University TÜRKİYE İstanbul Beykent University TÜRKİYE Kastamonu University TÜRKİYE Düzce University TÜRKİYE	THE RELATIONSHIP BETWEEN 2d:4d RATIO AND FINE MANUAL DEXILITY IN INDIVIDUALS AGED 18-25 YEARS OLD
Hüseyin BEKTAŞ Şeref Duhan ALTUĞ Nermin KART Filiz ALTUĞ	Bitlis Eren University TÜRKİYE Pamukkale University TÜRKİYE Harran University TÜRKİYE Pamukkale University TÜRKİYE	EVIDENCE-BASED EFFECTS OF DUAL TASK TRAINING IN PATIENTS WITH MULTIPLE SCLEROSIS
Şeref Duhan ALTUĞ Nermin KART Hüseyin BEKTAŞ Ayşe ÜNAL	Pamukkale University TÜRKİYE Harran University TÜRKİYE Bitlis Eren University TÜRKİYE Alanya Alaaddin Keykubat University TÜRKİYE	INVESTIGATION OF THE COGNITIVE CONTROL AND COGNITIVE FLEXIBILITY LEVELS OF HEALTHY INDIVIDUALS IN DIFFERENT AGE GROUPS
Nermin KART Hüseyin BEKTAŞ Şeref Duhan ALTUĞ Filiz ALTUĞ	Harran University TÜRKİYE Bitlis Eren University TÜRKİYE Pamukkale University TÜRKİYE Pamukkale University TÜRKİYE	THE ROLE OF PHYSIOTHERAPY AND REHABILITATION IN THE EFFECTS OF VAGUS NERVE STIMULATION ON THE PARASYMPHETIC SYSTEM
Nermin KART Emre BASKAN	Harran University TÜRKİYE Pamukkale University TÜRKİYE	ACUTE EFFECTS OF AEROBIC EXERCISE ON COGNITIVE FUNCTIONS IN PATIENTS WITH CHRONIC STROKE
Burçak MERİÇ	Ondokuz Mayıs University TÜRKİYE	THE EFFECT OF PROPRIOCEPTIVE SENSE ON SHOOTING ACCURACY IN BASKETBALL

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## HEAD OF SESSION: Assist. Prof. Dr. Buket DAŞTAN

AUTHORS	AFFILIATION	TOPIC TITLE
Hande DEMİRTAŞ Prof. Dr. Serap ALTUNTAŞ	Bandırma Onyedü Eylül University TÜRKİYE	PROBLEMS RELATED TO NURSING RECORDS, THEIR CAUSES AND SOLUTION SUGGESTIONS: A QUALITATIVE RESEARCH
Büşra AKYÜZ Nilüfer TUĞUT Gülay DEMİR	Sivas Cumhuriyet University TÜRKİYE	BIBLOMETRIC ANALYSIS OF STUDIES IN THE FIELD OF PRECONCEPTIONAL CARE AND COUNSELING
Elif ÇELEBİ Nuriye ERBAŞ Gülay DEMİR	Sivas Cumhuriyet University TÜRKİYE	BIBLIOMETRIC ANALYSIS OF STUDIES ON GYNECOLOGICAL CANCERS
Feyza Nur MURAT Assoc. Prof. Dr. Sonay BİLGİN	Atatürk University TÜRKİYE	E-DETERMINATION OF HEALTH LITERACY STATUSES AND INFECTIOUS DISEASE RISK AWARENESS AND PROTECTION LEVELS
Nurgül GÜN Prof. Dr. Songül KARADAĞ Prof. Dr. Sevilay ERDEN	Çukurova University TÜRKİYE	WITHIN THE DEVELOPING TECHNOLOGY IN THE FIELD OF HEALTH: ELDERLY PEOPLE
Assist. Prof. Dr. Buket DAŞTAN	Bayburt University TÜRKİYE	GAS THERAPY AND NURSING IN CANCER
Assist. Prof. Dr. Buket DAŞTAN	Bayburt University TÜRKİYE	SONODYNAMIC THERAPY AND NURSING IN CANCER
Fatmagül BAYAR Sümeyye ŞEN Assoc. Prof. Dr. Aslı AKDENİZ KUDUBEŞ	Bilecik Şeyh Edebalı University TÜRKİYE	THE EFFECT OF DISTRACTION METHODS ON THE ANXIETY LEVEL OF CHILDREN PLANNED FOR SURGERY
Sevda ÖNEN Prof. Dr. Ayşe ÇEVİRME	Sakarya University TÜRKİYE	ETHICS SCIENCE AND NURSING

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## HEAD OF SESSION: Assist. Prof. Dr. Cihan Emre TANÇ

AUTHORS	AFFILIATION	TOPIC TITLE
Res. Assist. Seher DÖNER Assoc. Prof. Dr. Nuray ŞİMŞEK	Erciyes University TÜRKİYE	CHILD ABUSE ON THE INTERNET AND MENTAL RESULTS
Assoc. Prof. Dr. Esmâ GÖKMEN	Ondokuz Mayıs University TÜRKİYE	BASIC PARAMETERS OF IDENTITY CONSTRUCTION OF NEW CONSERVATIVE INSTAGRAM PHENOMENA
Assist. Prof. Dr. Cihan Emre TANÇ	İstanbul Gelişim University TÜRKİYE	USE OF ARTIFICIAL INTELLIGENCE IN THE FILM INDUSTRY: MARKETING AND EDITING STAGES
Prof. Dr. Neriman ARAL Assist. Prof. Dr. Gül KADAN	Ankara University TÜRKİYE Çankırı Karatekin University TÜRKİYE	INVESTIGATION OF CHILD REPRESENTATIONS IN NEWSPAPERS AFTER KAHRAMANMARAŞ EARTHQUAKE
Alican USTA Murat GÜNAYDIN Gülây TELATAR	Samsun Guidance and Research Centre, Psychology, Samsun, TÜRKİYE	THE EXAMINATION OF THE RELATION BETWEEN VIRTUAL LONELINESS LEVELS OF 12. GRADE HIGH SCHOOL STUDENTS AND THEM BECOMING CYBER BULLIES/VICTIMS
Prof. Dr. Emeç GÜREL Res. Asst. İlkyay Burak TAŞKIRAN	Ege University TÜRKİYE Istanbul Yeni Yüzyıl University	E-HEALTH LITERACY: A CONCEPTUAL PERSPECTIVE
Beyza ÇANTAK Assist. Prof. Dr. Serpil ALLUŞOĞLU	İzmir Bakırçay University TÜRKİYE	EFFECT OF VISUAL ATTENTION ON SPEECH DISCRMINATION ABILITY IN YOUNG ADULTS WITH NORMAL HEARING: A PILOT STUDY
Neytullah SALMI Burak ÖZTÜRK Deniz TUZ	İzmir Bakırçay University TÜRKİYE İzmir Bakırçay University TÜRKİYE Ege University TÜRKİYE	EXAMINATION OF FACTORS AFFECTING MUSICAL PERCEPTION SKILLS IN INDIVIDUALS WITH COCHLEAR IMPLANTS A PRELIMINARY STUDY
Lect. Dr. Beytullah BOZALİ Ahmad Saleh Ahmad ALshamaileh	Düzce University TÜRKİYE	ARDUINO AND ARTIFICIAL INTELLIGENCE BASED HUMAN AND OBJECT TRACKING ROBOT

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## HEAD OF SESSION: Fr. Baiju Thomas

AUTHORS	AFFILIATION	TOPIC TITLE
SATYAM PATEL Dr. SWATI BANSAL	Sharda University INDIA	IMPACT OF SOCIAL MEDIA ON YOUTH
Isyaku, N.T James, Tolulope Olayemi	Kebbi State University of Science and Technology NIGERIA	AGE AND GENDER PREVALENCE OF SCHISTOSOMA HAEMATOBIIUM AMONG SECONDARY SCHOOL STUDENTS IN ALIERO TOWN, KEBBI STATE, NIGERIA
Fr. Baiju Thomas	Ramakrishna Mission Vivekananda Educational and Research Institute INDIA	THE ROLE OF CO-TEACHING FACILITATES INCLUSIVE EDUCATION FOR STUDENTS WITH DISABILITY IN THE 21ST CENTURY EDUCATIONAL SYSTEMS
Prof. Huma Ali Dr. Saba zubair	Jinnah Sindh Medical University PAKISTAN	COMMUNITY PHARMACY IN PAKISTAN. MYTHS, REALITIES AND ASSOCIATED CHALLENGES; STRATEGIES TO OVERCOME BARRIERS
Dr. Ishwar Mittal Dr. Rosy Dhall Mikul	Maharshi Dayanand University INDIA	PRODUCT INNOVATION AND QUALITY: BUILDING BLOCKS OF BRAND LOYALTY
Nydia Natasha Jefrin	Keningau Vocational College MALAYSIA	PLANTING TREES TO SAVE THE PLANET & PROMOTE HEALTHIER LIFESTYLE
Allyssa Amu Ronnie Velynda Veronica Mick Martin	Keningau Vocational College MALAYSIA	ECOTOURISM IN EAST MALAYSIA: CULTIVATING LOVE FOR NATURE AND TRAVELLING
Griselda Gilbert Ema Amelia Haili Nuraelya Aelyana Binti Bobby Zakaria	Keningau Vocational College MALAYSIA	FISHCAKE WITH THE FLAVOUR OF TRADITIONALLY PICKLED FISH BOSOU

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## HEAD OF SESSION: Miguel Gonçalves

AUTHORS	AFFILIATION	TOPIC TITLE
Mustafayev Agil Gulmammad	Azerbaijan National Academy of Sciences AZERBAIJAN	THE ROLE OF THE DEVELOPMENT OF SERICULTURE IN SOLVING THE POPULATION'S EMPLOYMENT PROBLEM IN THE SHEKI-ZAGATALA ECONOMIC REGION
Miguel Gonçalves Ana Ramos Neves Inês Reis Baptista	Polytechnic University of Coimbra PORTUGAL	SOME NOTES ON THE PRECURSOR FIGURE OF ACCOUNTING
Miguel Gonçalves	Polytechnic University of Coimbra PORTUGAL	AN INVITATION TO PORTUGUESE ACCOUNTING HISTORY: THE FIRST ACCOUNTING SCHOOL IN THE WORLD AND ITS TEACHERS AND STUDENTS
Leyla R. Hasanova	Azerbaijan State Oil and Industry University AZERBAIJAN	INVESTMENT PORTFOLIO'S MANAGEMENT IN POST-CONFLICT ENVIRONMENTS: RISKS, CHALLENGES AND OPPORTUNITIES
Abdul-Azeez Toyeeb Dr. Abdulmumini Baba Alfa Abubakar Alhaji Sadiq	Ibrahim Badamasi Babangida University NIGERIA	THE IMPACT OF MONETARY POLICY ON DOMESTIC PUBLIC INVESTMENT
Nanik Shofiyani Ria Anisatus Sholihah Santi Nailatul Izaty	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	INDONESIA LACKS PUBLIC ACCOUNTANTS
Regina SILFIANA Ria Anisatus SHOLIAH Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	RISING ECONOMIC GROWTH IN SOUTHEAST ASIA

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ZOOM PASSCODE: 111213

## HEAD OF SESSION: Prof. Dr. Marina Todor STOJANOVA

AUTHORS	AFFILIATION	TOPIC TITLE
Prof. Dr. Marina Todor STOJANOVA Prof. Dr. Dragutin DJUKIC Dr. Monika STOJANOVA Prof. Dr. Leka MANDIC Assoc. Dr. Ivana BOSKOVIC	University of Ss. Cyril and Methodius NORTH MACEDONIA University of Kragujevac SERBIA Association for Scientific-research, Educational and Cultural Activities "Open Science", Ohrid NORTH MACEDONIA University of Kragujevac SERBIA University of East Sarajevo BOSNIA AND HERZEGOVIA	EFFECTS OF SOIL AND FOLIAR FERTILIZING ON AFUS ALI GRAPEVINE BUDS' WINTER TEMPERATURE RESISTANCE AND CLUSTER CHEMICAL COMPOSITION
Thanh-Dung Nguyen Thi-Pha Nguyen Huu-Hiep Nguyen Huu-Thanh Nguyen	Can Tho University VIETNAM Can Tho University VIETNAM Can Tho University VIETNAM An Giang University, Vietnam National University VIETNAM	IDENTIFICATION AND CHARACTERIZATION OF VIETNAMESE MEDICINAL PLANT (Adenosma bracteosum Bonafii) BACTERIAL ENDOPHYTES DISPLAYING IN VITRO ANTAGONISTIC ACTIVITIES
Sara Badrouss El Mostafa Bachaoui Mohamed Jibril Daia Eddine Hicham Mouncif Mohamed Biniz	Sultan Moulay Slimane University MOROCCO	IMPROVING EFFICIENCY IN PLANT SPECIES MAPPING AND UAV IMAGE PROCESSING: LESSONS FROM MOROCCO'S HIGH ATLAS MOUNTAINS USING AN ENHANCED U-NET METHODOLOGY
Fowotade, Sulayman. A. Ahmad Fadhila. Murtala Yau. D. Ughanze Joshua U. Ibrahim Salisu N. Adesoye Sodiq A.	Hussaini Adamu Federal Polytechnic NIGERIA	ASSESSING THE IMPACT OF NEEEM LEAVE EXTRACT ON TERMITES INFECTED NEEEM BARK (AZADIRACHTA INDICA) TREE AND WALLS OF BUILDING IN HUSSAINI ADAMU FEDERAL POLYTECHNIC KAZAURE
P. Thamarai Selvi R. Srinivasan	Bharath Institute of Higher Education and Research INDIA	PHYTOPHARMACOLOGICAL STUDIES OF SOME INDIAN MEDICINAL PLANTS FOR ANTI-HYPERLIPIDEMIC ACTIVITY
N. O Hastrup A.J Okoiyele S. O Olaoti-Laaro M.O Lawal D.S Muritala W.T Ayanwusi	Forestry Research Institute of Nigeria, Jericho Hill GRA, Ibadan NIGERIA	COMPARATIVE STUDY ON THE GROWTH AND YIELD OF PLEUROTUS SAJOR- CAJU MUSHROOM CULTIVATED ON PENNISETUM PURPUREUM (ELEPHANT GRASS) AND SAW DUST OF TRIPLOCHITON SCLEROXYLON AS AN ENVIRONMENTAL CONTROL MEASURE
Zineb ELABOUDI Samira EL AOUIDI Abdelaziz MADINZI Radouan SAADI Azzouz BENKDAD Abdelmourhit LAISSAOUI Salah SOUABI Zineb EL MOURIDI	Hassan II University of Casablanca MOROCCO	SOIL-TO-PLANT TRANSFER FACTORS OF NATURALLY OCCURRING RADIONUCLIDES IN MEKNES SEMI-ARID AGRICULTURAL AREA, MOROCCO
Aya HAMIOUD Farida BENMEZIANE Lynda DJERMOUNE-ARKOUB	Bejaia University ALGERIA Chadli Bendjedid University ALGERIA Bejaia University ALGERIA	CHICKPEA (Cicer arietinum): NUTRITIONAL ASPECTS AND COMPOSITION

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# ONLINE PRESENTATIONS

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ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Merve AYDOĞDU ÇELİK

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Merve AYDOĞDU ÇELİK	Tekirdağ Namık Kemal University TÜRKİYE	EXAMINING STOIC PHILOSOPHY IN ACTION: A LOOK AT ADDISON'S CATO
Assist. Prof. Dr. Barış AĞIR	Osmaniye Korkut Ata University TÜRKİYE	SEXUALITY AND VIOLENCE: TOXIC MASCULINITY AS A FORM OF HEGEMONY IN RAYMOND CARVER'S SHORT STORIES
Serap DURMUŞ	Bartın University TÜRKİYE	A COMPARATIVE ANALYSIS OF HU'S ECO-TRANSLATOLOGY AND BOURDIEU'S SOCIOLOGY: IMPLICATIONS FOR TRANSLATORS
Asma Idris Mohammed Alfassi	Ankara Social Sciences University TÜRKİYE	THE IMPACT OF TURKISH LANGUAGE ON THE LIBYAN DIALECT
Ayşenur YILMAZ	Kapadokya University TÜRKİYE	GENDER, MARRIAGE, AND INDEPENDENCE: 'JANE EYRE' IN THE CONTEXT OF SECOND-WAVE FEMINISM
Audrey Georgina Udi	Keningau Vocational College MALAYSIA	LEARNING THE DIFFERENT DIALECTS OF KOREAN LANGUAGE THROUGH K-DRAMAS
Assoc. Prof. Dr. Başak KARAKOÇ ÖZTÜRK Assist. Prof. Dr. B. Erdem DAĞISTANLIOĞLU Cabbar AYDIN	Çukurova University TÜRKİYE Ankara University TÜRKİYE Ministry of National Education, Adana TÜRKİYE	A STUDY ON THE SECONDARY SCHOOL DICTIONARY IN TERMS OF POLYSEMY
Exp. Phy. Melis ÜNAL Assoc. Prof. Dr. Esra PEHLİVAN	University of Health Sciences TÜRKİYE	PELVIC FLOOR MUSCLE REHABILITATION IN CHILDREN WITH NON- NEUROGENIC LOWER URINARY TRACT DYSFUNCTION
Assoc. Prof. Ahmadova Akima Amir Assist. Muradova Jala Nizami	Azerbaijan State Oil And Industry University AZERBAIJAN	AZERBAIJAN'S TRANSITION STRATEGY TO THE GREEN ECONOMY

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-2, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Sezgi GİRAY KÜÇÜK

AUTHORS	AFFILIATION	TOPIC TITLE
Nazlı Nisa GÜNEY Assoc. Prof. Dr. Ümit Turgay ARPACIOĞLU	Mimar Sinan Fine Arts University TÜRKİYE	THE INFLUENCE OF ADAPTABILITY ON ARCHITECTURE AND FACADES
Buse İLİ Mehmet Serkan YATAĞAN	Istanbul Technical University TÜRKİYE	PERFORMANCE EVALUATION OF WOOD-GLASS COMPOSITE FACADE MATERIAL UNDER ATMOSPHERIC CONDITIONS
Ceyda YENER Prof. Dr. Arif GÖK	Kütahya Dumlupınar University TÜRKİYE	THE ROLE OF CREATIVE THINKING TECHNIQUES IN SOLVING CONCEPT PROBLEMS FOR INTERIOR ARCHITECTURE STUDENTS
MSc. Fatma KILIÇ URFALI Assist. Prof. Dr. Ali İhsan ÇELİK	Erciyes University TÜRKİYE	ANALYSIS OF HISTORICAL ARCH STRUCTURES USING THE FINITE ELEMENT METHOD: THE CASE OF TEKGOZ BRIDGE
Assoc. Prof. Dr. Sezgi GİRAY KÜÇÜK	Mimar Sinan Fine Arts University TÜRKİYE	EXAMINING THE THEME OF ICOMOS 2024 'DISASTERS & CONFLICTS THROUGH THE LENS OF THE VENICE CHARTER' WITH EXAMPLES FROM TÜRKİYE AND THE WORLD
Hasan KORKMAZ Assoc. Prof. Dr. Ayşegül TEREÇİ	KTO Karatay University TÜRKİYE	THE EFFECT OF VENTILATION ON INDOOR AIR QUALITY IN OFFICE BUILDINGS: THE CASE OF KONYA SELÇUKLU MUNICIPALITY BUILDING
Ayhan AYDIN Assoc. Prof. Dr. Arzu TAYLAN SUSAN	Bursa Technical University TÜRKİYE	THE EVALUATION OF URBAN QUALITY OF LIFE IN THE DIVERSE HOUSING AREAS: THE CASE OF ALMERE, NETHERLANDS

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12.05.2024 / Hall-3, Session-1

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ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. İpek ÇİMEN BULUT

AUTHORS	AFFILIATION	TOPIC TITLE
Mauloddin SHARIFI	Kütahya Dumlupınar University TÜRKİYE	11 SEPTEMBER ATTACK AND CRISIS IN AFGHANISTAN
Assoc. Prof. Dr. Latif PINAR Askar ACHYLOV	Karabük University TÜRKİYE	INTERNATIONAL RELATIONS AND FASHION
Assoc. Prof. Dr. Latif PINAR Askar ACHYLOV	Karabük University TÜRKİYE	INTERNATIONAL RELATIONS AND SCRIPT WRITING
Ceren Ece GÖCEN Assoc. Prof. Meral BALCI	Marmara University TÜRKİYE	HISTORY AND SECURITIZATION OF MIGRATION: THE CASE OF THE USA
Büşra ŞENSOY	Yalova University TÜRKİYE	EUROPEAN GREEN DEAL AND TURKIYE: OPPORTUNITIES AND CHALLENGES
Dr. Nebahat KAYAER	Emeritus Faculty Member, Department of Criminal and Criminal Procedure İzmir TÜRKİYE	ACTIO LIBERA IN CAUSA (ALIC) THEORY IN CRIMINAL LAW
Assist. Prof. Dr. İpek ÇİMEN BULUT	İzmir Bakırçay University TÜRKİYE	ETHICAL PROBLEMS IN ROBOTS WITH ARTIFICIAL INTELLIGENCE DURING THE DIGITAL TRANSFORMATION PROCESS OF THE EUROPEAN UNION
Talha MERCİMEK Assist. Prof. Dr. Özgür TONKAL	Samsun University TÜRKİYE	SOCIAL MEDIA CRIMINALS

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ZOOM PASSCODE: 111213

## HEAD OF SESSION: Prof. Dr. Ivan PAVLOVIC

AUTHORS	AFFILIATION	TOPIC TITLE
Usman ABDULLAHI Abba GAMBO Fatima ABUBAKAR	Lake Chad Research Institute NIGERIA	EVALUATION ON BASE LINE SURVEY OF NEWLY DEVELOPED PEARL MILLET VARIETIES SUPER-SOSAT UNDER NATURAL FIELD CONDITIONS IN NORTH EAST NIGERIA
Muhammed, Y. Adejoh, S. O. Muhammad, U. H. Aliyu, P. A.	Federal University of Technology NIGERIA	EFFECTS OF INTEREST RATE ON CREDIT ACCESSED BY MAIZE FARMERS IN KUJE AREA COUNCIL OF ABUJA, NIGERIA
Priyanka Kumari Meena R. S. Sharma	Rajasthan Agricultural Research Institute INDIA	MANAGEMENT STRATEGIES USING FUNGICIDES AGAINST COLLAR ROT OF CHICKPEA INCITED BY SCLEROTIUM ROLFII UNDER IN VITRO AND IN VIVO CONDITIONS
Prof. Dr. Ivan PAVLOVIC BSc. Stanko MINIC Dr. Marija PAVLOVIC Dr. Aleksandra TASIC	Scientific Institute of Veterinary Medicine of Serbia, Belgrade SERBIA Veterinary Station Minic, Starčevo, SERBIA Scientific Institute of Veterinary Medicine of Serbia, Belgrade SERBIA Scientific Institute of Veterinary Medicine of Serbia, Belgrade SERBIA	OCCURENCE OF RAILLIETINA TETRAGONA IN FARM BREEDING PHEASANTS IN BELGRADE AREA
S. A. Daud A. B. Omotoso I. A. Aderibigbe O. I. Sulaimon	Oyo State College of Agriculture and Technology NIGERIA	SYNERGY BETWEEN TRANSPORTATION INFRASTRUCTURE AND ARABLE CROP PRODUCTION IN OYO STATE
I. A. Aderibigbe S. A. Daud A. B. Omotoso O. I. Sulaimon	Oyo State College of Agriculture and Technology NIGERIA	INFRASTRUCTURAL DEVELOPMENT ESTIMATION: A SCHOCHASTIC FRONTIER OF SMALLHOLDER FARMERS IN OGUN STATE
El Rhoch Mohamed Maazouzi Soukaina Mouden Najoua Sellal Zineb Selmaoui Karima Ouazzani Touhami Amina Douira Allal	Ibn Tofail University MOROCCO	TRICHODERMA USE AS SEED TREATMENT FOR PROMOTING THE GROWTH OF YOUNG ARGAN SEEDLINGS
B. Pharm Assoc. Prof. R. JOTHILAKSHMI Prof. Dr.R.SRINIVASAN	Bharath Institute Of Higher Education And Research Chennai INDIA	NEUROPROTECTIVE AGENTS, NATURAL PLANT HERBS & DRUGS IN ISCHEMIC STROKE: A REVIEW

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## HEAD OF SESSION: Prof. Sunil Gupta

AUTHORS	AFFILIATION	TOPIC TITLE
Shubham Sharma Prof. Sunil Gupta	Mangalayatan University INDIA	AN ASSESSMENT OF INITIAL CHEMICAL AND PHYSICAL TESTS ON THE FRUIT OF RANDIA DUMETORUM LAMK
Hussaini, A. S. Oladimeji, Y. U. Abdulrahman, S. Yusuf, H. O. Afolabi, E. A. Suleiman, R.	Ahmadu Bello University NIGERIA	CHARACTERIZING THE KEY ACTORS AND ITS FUNCTIONAL ROLES ALONG THE GROUNDNUT VALUE CHAIN IN NIGERIA
Rethika V Ranjani Y Pavithra M Monika Krishna Lalitha Ramachandran	R.M.K Engineering College INDIA	ASSESSING THE IMPACT OF CLIMATE CHANGE ON CROPYIELDS USING STATISTICAL ANALYSIS
Asmae Baghouz Rajae El Brahimi Raja Guemmouh	Sidi Mohamed Ben Abdellah University MOROCCO	EXPLORATION THE USE OF ESSENTIAL OILS FROM THREE AROMATIC AND MEDICINAL PLANTS AS A NATURAL ALTERNATIVE TO CONTROL COWPEA WEEVIL (CALLOSBRUCHUS MACULATUS)
Zakia Hammou Zakia Guezzen Zouaoui Sereir Yamna Hammou	University of Science and Technology of Oran ALGERIA	OPTIMIZATION OF NATURAL FREQUENCIES BY GENETIC ALGORITHM OF FGM SHELLS REINFORCED BY CARBON NANOTUBE
Fatima Ezzahra Atmani Meriem Kasbaji Safaa Adim Aziz Hasib	Sultan Moulay Slimane University MOROCCO	USING FISH SCALES AS A NEW BIOSORBENT FOR THE ADSORPTION OF METHYLENE BLUE FROM WASTEWATER: OPTIMIZATION, EFFECT OF PHYSICO-CHEMICAL PROPERTIES, KINETIC MODELS AND THERMODYNAMIC PARAMETERS
Mohamed Rhaya Hicham Abou Oualid Redouane Haounati Hassan Ouachtak Amane Jada Abdelaziz Ait Addi	Ibn Zohr University MOROCCO Ibn Zohr University MOROCCO Ibn Zohr University MOROCCO Ibn Zohr University MOROCCO Haute Alsace University FRANCE Ibn Zohr University MOROCCO	HIGHLY EFFICIENT PHOTOCATALYTIC DEGRADATION OF ORANGE G DYE UNDER SOLAR LIGHT WITH A NOVEL TERNARY CATALYST
Siham ELMACHRAFI M'hammed EL KOUALI Meryem EL JEMLI	Hassan II University of Casablanca MOROCCO Hassan II University of Casablanca MOROCCO Mohamed VI University of Sciences and Health (UM6SS) MOROCCO	EXTRACTION AND IDENTIFICATION OF THE CHEMICAL CONSTITUENTS OF ESSENTIAL OILS AND AQUEOUS EXTRACTS FROM LAMIACEAE PLANTS

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## 12.05.2024 / Hall-6, Session-1

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ZOOM PASSCODE: 111213

### HEAD OF SESSION: Sushma Shori

AUTHORS	AFFILIATION	TOPIC TITLE
Sushma Shori	I. K. Gujral Punjab Technical University INDIA	DEVELOPMENT OF PIZZA BASE USING FLOUR OF MILLETS
Imdadul Hossain Molla	I. K. Gujral Punjab Technical University INDIA	PREPARATION OF HYDROGEL BEADS CONTAINING PLANT EXTRACT
Judd Ryan Marcellinus Ryan Yop	Keningau Vocational College MALAYSIA	DITCHING & SWITCHING: SUBSTITUTING PLASTIC STRAWS WITH STRAWS FROM BIODEGRADABLE MATERIALS
Nathanael Tobit Franke Erowincent Edwin	Keningau Vocational College MALAYSIA	DRINKING WATER PROMOTES HUMAN WELLNESS WHILE MINIMIZING OUR HARM ON THE ENVIRONMENT
Muhammad Amjad Syed Makhdoom Hussain Zeeshan Yousaf Muhammad Faisal Adan Naeem Eman Nameem Muhammad Mahmood Shoaib Akhtar	Government College University PAKISTAN	EFFECT OF CORNCOB AND HOUSE WASTE BIOCHAR ON GROWTH PERFORMANCE, AND BODY COMPOSITION OF GRASS CARP (CTENOPHARYNGODON IDELLA) FINGERLINGS
Ali Haider Muhammad Imran Muhammad Ikram Anum Shahzadi	Muhammad Nawaz Shareef University of Agriculture PAKISTAN Government College University PAKISTAN Government College University PAKISTAN COMSATS University Islamabad PAKISTAN	ANTIMICROBIAL POTENTIAL AND RHODAMINE B DYE DEGRADATION USING GRAPHITIC CARBON NITRIDE AND POLYVINYLPIRROLIDONE DOPED BISMUTH TUNGSTATE SUPPORTED WITH IN SILICO MOLECULAR DOCKING STUDIES
A. Raza A. Rasheed A. Farid Misbah Yousaf N. Ayub I. A. Khan	Government College University Faisalabad PAKISTAN	SYNTHESIS OF BINDER-FREE NANOFIBERS ZnS/MoS <sub>2</sub> /NiF ELECTRODE MATERIAL FOR ASYMMETRIC SUPERCAPACITOR APPLICATIONS

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12<sup>30</sup> : 14<sup>30</sup>



ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. Özhan ORHAN

AUTHORS	AFFILIATION	TOPIC TITLE
Melisa GÜLTEKİN Assoc. Prof. Dr. Esra PEHLİVAN	University of Health Sciences TÜRKİYE	THE ROLE OF PELVIC FLOOR MUSCLE TRAINING IN PELVIC ORGAN PROLAPSE SURGERY: A REVIEW OF RECENT RANDOMIZED CONTROLLED TRIALS
Ayşegül TUNA İlknur AKKUŞ Serdar GÜL Birgül KAÇMAZ	Kırıkkale University TURKIYE	PYURIA, BACTERIURIA, AND EMPIRICAL ANTIBIOTIC SELECTION IN PREGNANT WOMEN
Assoc. Prof. Dr. Eyvazov Taryel Ali Assoc. Prof. Dr. Huseynova Gulbeniz Asif Prof. Abiyev Huseyn Azizulla Safaraliyeva Leyla Khalid Abaszade Zümrüd Amırgulu Dr. Karimova Rena Jabbar	Azerbaijan Medical University AZERBAIJAN	PATHOPHYSIOLOGY, DIAGNOSIS AND TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE CAUSED BY RISK FACTORS
Assoc. Prof. Dr. Huseynova Gulbeniz Asif Prof. Abiyev Huseyn Azizulla Mammadov Shahmar Ajdar Dr. Ibrahimova Narin Matlab Usubova Nazaket Arif Dr. Karimova Rena Jabbar	Azerbaijan Medical University AZERBAIJAN	REFUTATION, TREATMENT AND DIAGNOSTIC STUDY OF PATHOPHYSIOLOGICAL FEATURES OF PHARYNGITIS
Assist. Prof. Tuğçe ANTEPLİOĞLU Şerafettin KURTOĞLU	Kırıkkale University TÜRKİYE	BIOMARKERS WITH POTENTIAL FOR THE DETECTION OF RENAL DISEASE IN DOGS AND CATS
Prof. Abiyev Huseyn Azizulla Jafarova Nasiba Asgar Mammadov Shahmar Ajdar Usubova Nazaket Arif Dr. Jafarova Zümrüd Ibrahim Dr. Karimova Rena Jabbar	Azerbaijan Medical University AZERBAIJAN	PHYSIOLOGICAL AND PATHOLOGICAL CHARACTERISTICS OF FALSE, IATROGENIC AMENORRHEA
Assist. Prof. Dr. Özhan ORHAN Assist. Prof. Dr. Mehmet Nur TALAY Dr. Murat SOLMAZ	Mardin Artuklu University TÜRKİYE Mardin Artuklu University TÜRKİYE Batman İluh State Hospital Batman TÜRKİYE	RETROSPECTIVE REVIEW OF VISION SCREENING RESULTS
Assist. Prof. Dr. Özhan ORHAN Assist. Prof. Dr. Mehmet Nur TALAY Dr. Murat SOLMAZ	Mardin Artuklu University TÜRKİYE Mardin Artuklu University TÜRKİYE Batman İluh State Hospital Batman TÜRKİYE	RETROSPECTIVE INVESTIGATION OF CHILDREN PRESENTED WITH FEBRILE CONVULSION
Mesude Bengisu YILMAZBAŞ Nuriye ERBAŞ Gülşay DEMİR	Sivas Cumhuriyet University TÜRKİYE	BIBLIOMETRIC ANALYSIS OF STUDIES ON RISKY PREGNANCY AND PREECLAMPSY

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### HEAD OF SESSION: Assoc. Prof. Dr. Andaç Batur ÇOLAK

AUTHORS	AFFILIATION	TOPIC TITLE
Mehmet Can BÜYÜKDÖĞERLİOĞLU Prof. Dr. Haydar LİVATYALI	Yıldız Technical University TÜRKİYE	DIMENSIONAL CONTROL IN SHEET METAL FORMING USING MACHINE LEARNING
Fatma Feyza GÜNGÖR Prof. Dr. Mehmet SUNAR	Ankara Yıldırım Beyazıt University TÜRKİYE	THERMALLY-INDUCED VIBRATIONS OF ISOTHERMAL THIN STRUCTURES SUBJECT TO VARIOUS STRUCTURAL BOUNDARY CONDITIONS
Assoc. Prof. Dr. Andaç Batur ÇOLAK	İstanbul Ticaret University TÜRKİYE	INVESTIGATING THE APPLICABILITY OF MACHINE LEARNING IN PERFORMANCE ANALYSIS OF SOLAR WATER PUMPS
Fahri Berk BİLBAY Prof. Dr. Mustafa Cemal ÇAKIR	Bursa Uludağ University TÜRKİYE	INVESTIGATION OF THE LEAD TYPES THAT CONNECTING ELECTRONIC COMPONENTS TO PRINTED CIRCUIT BOARDS USED IN AUTOMOTIVE LIGHTING SYSTEMS IN TERMS OF MECHANICAL PERSPECTIVE
Sinem MAVİLER	Kütahya Dumlupınar University TÜRKİYE	INVESTIGATION OF GREEN HYDROGEN PRODUCTION AND USE BY SWOT ANALYSIS
Muhammet DAĞLI Ahmet DEMİRER Esra YUMAT	Sakarya University TÜRKİYE Sakarya University TÜRKİYE Kocaeli University TÜRKİYE	INVESTIGATION OF THE MECHANICAL AND DIMENSIONAL STABILITY BEHAVIOR OF HDPE O-RING PART UNDER DIFFERENT PROCESS CONDITIONS
Assoc. Prof. Dr. Emel GELMEZ Assist. Prof. Dr. Hande EREN	Selçuk University TÜRKİYE Kapadokya University TÜRKİYE	EVALUATION ECONOMIC FREEDOM OF G7 COUNTRIES USING CRITIC-BASED MULTIMOORA METHOD
Erhan ARSLAN Prof. Dr. Habib UMUR	Bursa Uludağ University TÜRKİYE	NUMERICAL ANALYSIS OF NEWTONIAN AND NON-NEWTONIAN FLUIDS IN CONCENTRIC AND ECCENTRIC CHANNELS AND COMPARISON WITH EXPERIMENTAL STUDY
Assoc. Prof. Dr. Ali Sinan ÇABUK	Istanbul Technical University TÜRKİYE	THERMAL MONITORING OF SOLAR PANELS WITH NODE-RED

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ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Funda AYDIN

AUTHORS	AFFILIATION	TOPIC TITLE
Ufuk GÖR Res. Assist. Dr. Eser ÇAKMAK Atakan ERİŞGİN Assoc. Prof. Dr. Begüm KORUNUR ENGİZ Prof. Dr. Birşen BİLGİCİ	Ondokuz Mayıs University TÜRKİYE	THE EFFECTS OF ELECTROMAGNETIC FIELD AT 2-2.45 GHZ MICROWAVE FREQUENCY ON ER STRESS IN RAT BRAIN TISSUE
Mustafa KULBAY Res. Assist. Dr. Eser ÇAKMAK Atakan ERİŞGİN Assoc. Prof. Dr. Begüm KORUNUR ENGİZ Prof. Dr. Birşen BİLGİCİ	Ondokuz Mayıs University TÜRKİYE	THE EFFECTS OF ELECTROMAGNETIC FIELD AT 2-2.45 GHZ MICROWAVE FREQUENCY ON ER STRESS IN RAT TESTIS TISSUE
Abdalmuhaymen M. A. GHAZAL Mustafa ARSLAN Assist. Prof. Dr. Şakir ALTINSOY	İstanbul Yeni Yüzyıl University TÜRKİYE	INVESTIGATION OF THE TENSILE STRENGTHS OF PLA AND RE- PLA PRODUCED IN DIFFERENT FILLING PATTERNS WITH A 3D PRINTER
Mustafa ARSLAN Abdalmuhaymen M. A. GHAZAL Assist. Prof. Dr. Şakir ALTINSOY	İstanbul Yeni Yüzyıl University TÜRKİYE	INVESTIGATION OF THE FRACTURE BEHAVIOR OF PLA AND RE-PLA SAMPLES MANUFACTURED WITH FUSED DEPOSITION MODELING USING DIFFERENT MANUFACTURING PATTERNS
Hasan Kemal KARABUN Prof. Dr. Kemal Melih TAŞKIN	Çanakkale Onsekiz Mart University TÜRKİYE	THE EFFECT OF TRICHOSTATIN A (TSA) ON MORPHOLOGICAL CHARACTERISTICS OF ARABIDOPSIS THALIANA UNDER PHOPSHATE STARVATION
İrem Ezgi USTAOĞLU Prof. Dr. Kemal Melih Taşkın	Çanakkale Onsekiz Mart University TÜRKİYE	GLYCAN PROFILING OF SOYBEAN PLANTS UNDER ABIOTIC STRESS
Tülü OLAK Abdullah TURAN Duygu ALPASLAN Tuba ERŞEN DUDU Nahit AKTAŞ	Van Yüzüncü Yıl University TÜRKİYE	INVESTIGATION OF PARACETAMOL RELEASE FROM THYME OIL-CONTAINING ORGANO-HYDROGELS AT DIFFERENT pHs AND THE EFFECT OF KINETIC MODELS
Assoc. Prof. Dr. Funda AYDIN Mehmet Veysel ULUDAĞ Zehra ERDOĞAN Muhammed Emrullah KARABAKAN Rahime TUNÇ	Van Yüzüncü Yıl University TÜRKİYE	A NOVEL DEEP EUTECTIC SOLVENT-BASED LIQUID-LIQUID MICROEXTRACTION METHOD FOR ANALYZING NONSTEROIDAL ANTI-INFLAMMATORY DRUG INDOMETHACIN IN ENVIRONMENTAL WATERS
Assoc. Prof. Dr. Elif ÖZMETİN Assist. Dr. Elif ÇALGAN Assist. Dr. Yeliz SÜZEN	Balıkesir University TÜRKİYE	THE EFFECT OF VARIOUS PARAMETERS ON SULFATE REMOVAL BY ION EXCHANGE

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## HEAD OF SESSION: Assoc. Prof. Neha Singh

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Raf Raf Shakil Ansari	Sharda University INDIA	Ex-MACHINA (2015): EXPLORING CYBORG FIGURATION AND FEMINIST POSTHUMANISM
Anum Shahzadi Iram Shahzadi	COMSATS University Islamabad PAKISTAN University of Management and Technology PAKISTAN	SIZE-CONTROLLED SYNTHESIS OF LA AND CHITOSAN DOPED COBALT SELENIDE NANOSTRUCTURES FOR CATALYTIC AND ANTIBACTERIAL ACTIVITY WITH MOLECULAR DOCKING ANALYSIS
Seyed Mohsen Khodaei Zahra Esfandiari Ramin Aslani Seyedeh Mahsa Khodaei	Ilam University of Medical Sciences IRAN Isfahan University of Medical Sciences IRAN Tehran University of Medical Sciences IRAN Tehran University of Medical Sciences IRAN	INVESTIGATION OF ACRYLAMIDE IN BREAD, PROCESSES OF ITS FORMATION, AND ITS REDUCTION WITH NEW METHODS
Assist. Prof. Dr. Madan Lal Regar Dr. Bhavna Choubisa	National Institute of Fashion Technology INDIA Panipat Institute of Engineering & Technology INDIA	ANALYSIS OF ELASTIC PROPERTIES OF ELI-TWIST YARN
Faraz Ahmed Muhammad Yasin Naz Shazia Shukrullah	University of Agriculture PAKISTAN	SYNTHESIS AND CHARACTERIZATIONS OF MnTiO <sub>3</sub> PHOTOCATALYST FOR THE DEGRADATION OF RHODAMINE B DYE IN AQUEOUS SOLUTION
Priyanshi Goyal	Mangalayatan University INDIA	A REVIEW ARTICLE ON RECENT INNOVATION AND FUTURE OBSTACLES IN DRUG DELIVERY SYSTEM TO THE EYE
B. Pharm A. DINESH BABU Assoc. Prof. Mrs. R. JOTHILAKSHMI Prof. Dr. R. SRINIVASAN	Bharath Institute Of Higher Education And Research Chennai, INDIA	SOME NATURAL ISOLATED COMPOUNDS AS ANTICANCER AGENTS
Assoc. Prof. Neha Singh	Mangalayatan University INDIA	PHYTOCHEMICAL EVALUATION AND PHARMACOLOGICAL USES OF TURMERIC (CURCUMA LONGA)

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-5, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Binyam Zigta

AUTHORS	AFFILIATION	TOPIC TITLE
Odenigbo C. Clifford Momoh Shaibu	Federal Polytechnic Kaura Namoda NIGERIA	FILTRATION EFFICIENCY OF CERAMIC WATER FILTER POT PRODUCED FROM CLAY AND BIOMASS AND BIOMASS AS ALTERNATIVE SOURCE OF WATER PURIFICATION FOR RURAL AREAS
Samrat Biswas Barinderjit Singh	I. K. Gujral Punjab Technical University INDIA	ULTRASOUND ASSISTED EXTRACTION OF BIOACTIVE COMPOUND FROM PEARL MILLET (Pennisetum glaucum) AND UTILIZATION FOR PRODUCT DEVELOPMENT
Nitika Saini Barinderjit Singh	I.K. Gujral Punjab Technical University INDIA	UTILIZATION OF KINNOW PEEL BYPRODUCT FOR PASTA FORTIFICATION
Sabba Mehmood	National University of Medical Sciences PAKISTAN	JOURNEY TOWARDS PERSONALIZED MEDICINES AND RARE GENETIC DISEASES MANAGEMENT
Shubham Kumar Shabir Sidhu	I.K. Gujral Punjab Technical University INDIA	CARROT (Daucus carota) POMACE INCORPORATED MUFFINS: DEVELOPMENT AND QUALITY EVALUATION
Dr. Binyam Zigta	Wachemo University ETHIOPIA	NUMERICAL STUDY OF PHYSIOLOGICAL BLOOD FLOW WITH STRETCHING CAPILLARY ON MHD MICROPOLAR FLUID
Muhammad Abdullah Amnah Yusaf Muhammad Usman	Government College University PAKISTAN	MIXED MICELLAR ENCAPSULATION OF NSAIDS FOR ENHANCED SOLUBILIZATION USING SUITABLE SURFACTANTS
Fatima Adamu Yahaya Innocent Ojeba Musa Sanjoy Kumar Pal	Skyline University NIGERIA	AGRICULTURE AND SOIL MICROBIOME AND MICROBIAL INTERACTION WITH THE ENVIRONMENT

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# ONLINE PRESENTATIONS

## 12.05.2024 / Hall-6, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

### HEAD OF SESSION: Dr. K. Masilamani

AUTHORS	AFFILIATION	TOPIC TITLE
Bismillah Iftikhar Sumbal Imran Asifa Javaid Saim Naseer Dr. Rizwana Raheel Dr. Mah Ru Nisa Atif	Hajvery University PAKISTAN	EPILEPTIC HEART SYNDROME: CARDIAC COMPLICATIONS IN CHRONIC EPILEPSY
Ikechukwu Jacob Okoro Okwor, Collette Onyinye Nwokike, Amarachi Precious Onyia Obumneme Maduka Chinenye Precious Nwafor Amah Christian Chijioke Victor Nwadiogbu Ogugua	Nigeria University NIGERIA David Umahi Federal University of Health Sciences NIGERIA State University of Medical and Applied Sciences NIGERIA	EFFECTS OF METHANOL EXTRACT OF ALCHORNEA FLORIBUNDA LEAVES ON THE LIVER AND KIDNEY MARKERS OF TETRACHLOROMETHANE-INDUCED TOXICITY IN EXPERIMENTAL RATS
P. Nithin Kumar Dr. K. Masilamani	Bharath Institute of Higher Education and Research INDIA	OVERVIEW OF NANOPARTICLES FOR THE TREATMENT OF EPILEPSY
Obiora Celestine Ugwu Chioma Assumpta Anosike Chidimma Lilian Asadu Chukwuebuka Kingsley Nwokedi Uchenna Emmanuel Obasi	Enugu State University of Science and Technology NIGERIA Nigeria University NIGERIA	INVESTIGATION OF THERAPEUTIC POTENTIAL OF METHANOL EXTRACT OF EUCALYPTUS GLOBULUS LEAF IN MITIGATING ETHANOL-INDUCED INFERTILITY IN ALBINO RATS
Bakhtawar Arshad Wafa Majeed Farooq Azam Akmal Farooq	University of Agriculture PAKISTAN	UNDERSTANDING THE EXPRESSION LEVEL OF NF1 AND TIN GENES IN LUNG CANCER
Sunny Chauhan Ajesh Chauhan Chetan Vashist Shivam Rajput	IITM College of Pharmacy INDIA	UTILISING MicroRNAs AS A THERAPEUTIC APPROACH FOR CANCER
Mónika Fekete Andrea Lehoczki Noémi Mózes János Tamás Varga	Semmelweis University HUNGARY	COPD AND NUTRITION: REDUCING HEALTHCARE COSTS AND PROMOTING BETTER NUTRITIONAL STATUS WITH DIETARY SUPPLEMENTS
Rajmonda Oboni Venemin Gega Ilma Toci Albana Sula Eona Dybeli Armelda Teta Gjergji Doko Arkida Skenderi Shqipe Luta Elona Hasalla Elona Hasalla Behije Gollobërda	Elbasan University "Aleksander Xhuvani" ALBANIA	THE LEVEL OF KNOWLEDGE OF WOMEN AND GIRLS ABOUT BREAST CANCER IN THE DISTRICT OF BERAT

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-1, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Rauf GUL

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Rauf GUL Dr. Aziz YARBİL Dr. Metin KILINÇ Dr. Ergün MENDES Prof. Dr. Vahap SARICICEK	Gaziantep University TÜRKİYE Ministry of Health Kilis State Hospital TÜRKİYE Ministry of Health Mardin Training and Research Hospital TÜRKİYE Sakura Training and Research Hospital TÜRKİYE İstanbul Kent University TÜRKİYE	MONITORED ANESTHESIA CARE AND EFFECTIVE DOSE OF REMIFENTANIL IN TRANSURETRAL RESECTION - RANDOMIZED CONTROLLED STUDY
Assoc. Prof. Dr. Rauf GUL Dr. Ferdi DOĞANAY	Sanko University TÜRKİYE Gaziantep University TÜRKİYE	EFFICACY AND SAFETY OF TRAMADOL AND LOW DOSE REMIFENTANIL IN POSTTORACOTOMY PAIN
Yakub ANLAĞAN Assoc. Prof. Dr. Rauf GUL Prof. Dr. Saffet KARACA	TR Ministry of Health Esenler Maternity and Children's Hospital, Anesthesiology Specialist TÜRKİYE Gaziantep University TÜRKİYE İstanbul University TÜRKİYE	EVALUATION OF FACTORS EFFECTING POSTOPERATIVE MORTALITY IN FEMUR FRACTURES - RETROSPECTIVE STUDY
Assoc. Prof. Hajiyeva Sevinj Ibrahim Agamaliyeva Ulken Jafar Hasanova Khumar Aliovsat Iskandarova Zulfiya Shamil Gafarova Zohra Anvar Dr. Karimova Rena Jabbar	Azerbaijan Medical University AZERBAIJAN	PATHOPHYSIOLOGICAL CONDITIONS OF SICKLE CELL ANEMIA, SURGICAL TREATMENT OF SPINAL PATHOLOGY IN SCD
Assoc. Prof. Aliyeva Jamila Telman Ibrahimova Jala Sahin Safaraliyeva Leyla Khalid Abaszade Zümrud Amırgulu Shahmammadova Sevinj Osman Dr. Karimova Rena Jabbar	Azerbaijan Medical University AZERBAIJAN	PATHOPHYSIOLOGY, TREATMENT, AGE CHARACTERISTICS OF AGAMMAGLOBULINEMIA (BRUTON'S DISEASE)
Lect. Esmâ AYDIN Prof. Dr. Dilek AYGİN	Sakarya University TÜRKİYE	REDUCTION OF BURN RISKS IN THE USE OF MONOPOLAR ELECTROCAUTERY: SAFETY PROTOCOLS AND PRACTICES FOR OPERATING THEATRES
Lect. Esmâ AYDIN Prof. Dr. Dilek AYGİN	Sakarya University TÜRKİYE	RESEARCH ON THE EVALUATION OF PERIOPERATIVE NURSING CARE IN BARIATRIC SURGERY IN THE LAST 10 YEARS: A BIOMETRIC ANALYSIS

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-2, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. Abdulkemir ERGÜT

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Abdulkemir ERGÜT Assist. Prof. Dr. Begüm Yurdanur DAĞLI	Manisa Celal Bayar University TÜRKİYE	INVESTIGATION OF THE DYNAMIC BEHAVIOR OF JACKET-TYPE PLATFORMS EXPOSED TO HYDRODYNAMIC FORCES USING REGRESSION ANALYSES
Assist. Prof. Hakan BAYRAK	Kafkas University TÜRKİYE	REPLACEMENT OF THE GEOPOLYMER CONCRETE SECTIONS AS LAYER BY THE STEEL FIBER REINFORCED GEOPOLYMERS: BENDING TEST ON NOTCH PRISMS
Hilmi Anıl GÜNDEMİR Assoc. Prof. Dr. Murat ERGÜN	İstanbul Technical University TÜRKİYE	OPERATION MAINTENANCE FOR HIGHWAY BUILT WITH BOT (BUILD-OPERATE-TRANSFER) MODEL IN TURKEY
Emre ALTUNTAŞ Muhammed Serdar AVCI Emre ERCAN Ebru ERİŞ	Ege University TÜRKİYE	COMPARISON OF LOW-RISE RESIDENTIAL BUILDINGS IN THE CZECHIA EXAMPLE IN CENTRAL EUROPE AND TURKEY IN TERMS OF LEGISLATION, DESIGN, MANUFACTURING AND COST
Emre EREN Assoc. Prof. Dr. Emre ERCAN Ercan TUNA Emre KALFA Muhammed Serdar AVCI	Ege University TÜRKİYE	İSABEY MOSQUE MINARET RETROFITTING PROJECT: IMPROVING THE SEISMIC RESISTANCE OF THE HISTORICAL BUILDING AND INVESTIGATION OF ITS STRUCTURAL INTEGRITY
Assoc. Prof. Dr. Dia Eddin NASSANI Esra AKYEL	Hasan Kalyoncu University TÜRKİYE	STRENGTHENING REINFORCED CONCRETE STRUCTURE DAMAGED BY THE KAHRAMANMARAŞ EARTHQUAKE
Sibel ŞİZAR Umrhan TEZCAN ÜN	Eskisehir Technical University TÜRKİYE	CARBON DIOXIDE EMISSION CALCULATION IN CEMENT FACTORY

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-3, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. Kerem MERTOĞLU

AUTHORS	AFFILIATION	TOPIC TITLE
Hüseyin ŞİRİN Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	MATURATION AND STORAGE OF STRAWBERRIES
Cihangir KARA Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	EXHAUST GASES AND PLANT-RELATED IMPACTS OF THEM
Burak VURAL Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	EFFECTS OF DIFFERENT CROP LOADS ON FRUIT QUALITY
Anıl ERMİŞ MSc. Fatih ERBAŞ Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	OVERVIEW OF ARONIA AND ARONIA CULTURE IN TURKEY
Yusuf AKTOP Nevzat Kaan ALEMDAR MSc. Fatih ERBAŞ Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE Uşak University TÜRKİYE Republic of Turkey Ministry of Agriculture and Forestry, Atatürk Horticultural Central Research Institute TÜRKİYE Uşak University TÜRKİYE	USE OF AQUAPONIC TECHNIQUES IN FRUIT FARMING
Yiğit Ali AKIN Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	UTILIZING UNMANNED AERIAL VEHICLES IN FRUIT CULTIVATION
Mustafa Kemal KAYA Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	THERMAL POWER PLANTS' IMPACT ON FRUIT GROWING
Selin SANDAL Hüseyin ÖZÇELİK Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	BENEFITS AND SIGNIFICANCE OF FREEZING IN FRUIT STORAGE
Kamil YAVUZ Assist. Prof. Dr. Kerem MERTOĞLU	Uşak University TÜRKİYE	FACTORS AFFECTING OLIVE OIL QUALITY
Mehmet POLAT Gülşah BENGİSU Mustafa OKANT	Harran University TÜRKİYE	DETERMINATION OF SILAGE QUALITY CHARACTERISTICS OF FODDER PEAS AND OATS GROWN IN ŞANLIURFA CONDITIONS BY ENSILING AT DIFFERENT RATES
Nubar TÛMÛR Gülşah BENGİSU Mustafa OKANT	Harran University TÜRKİYE	DETERMINATION OF SILAGE QUALITY CHARACTERISTICS OF FEEDING PEAS AND TRITICALE SILAGES SILOED AT DIFFERENT RATIOS UNDER ŞANLIURFA CONDITIONS

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-4, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Priyanshi Goyal

AUTHORS	AFFILIATION	TOPIC TITLE
Arkida Skenderi Zamira Çabiri Gjergji Doka Venemin Gega Rajmonda Hida Ilma Toçi Albana Kreçi	Elbasan University "Aleksander Xhuvani" ALBANIA	GUARDING FUTURE GENERATIONS: THE POWER OF THE HPV VACCINE
S. Keerthiga V. Varalakshmi R. Devi Dr. R. Srinivasan	Bharath Institute of Higher Education and Research INDIA	GENETIC ENGINEERING: ETHICAL CONCERNS VS. BENEFITS
Pratthika A. T. Nadella Geethanjali Ponmani S. Priyadharshini D.	R.M.K. Engineering College INDIA	MENTALWELLBOT: A COMPREHENSIVE CHATBOT FOR MENTAL HEALTH AWARENESS AND PRELIMINARY MEDICAL ASSESSMENT
ARRAJI Maryem CHAHBOUNE Mohamed	Hassan First University of Settat MOROCCO	MEASUREMENT OF MEDICATION ADHERENCE AMONG TYPE II DIABETES PATIENTS ATTENDING PRIMARY HEALTHCARE FACILITIES IN MOROCCO
Priyanshi Goyal	Mangalayatan University INDIA	RECENT ADVANCEMENT ON MICROFLUIDIC TECHNOLOGIES FOR CANCER
NEHA	I. K. Gujral Punjab Technical University INDIA	EFFECT OF FORTIFICATION OF LETTUCE AND GERMINATED CHICKPEA FLOUR ON COOKING, FUNCTIONAL AND TEXTURAL PROPERTIES OF PASTA
E. Binuni Rebez G. Ilavarasi M. V. Silpa V. Sejian	Rajiv Gandhi Institute of Veterinary Education and Research INDIA	ROLE OF MOLECULAR CHAPERONES IN INDUCING CLIMATE RESILIENT POTENTIAL TO GOAT
Samrat Biswas Barinderjit Singh	I. K. Gujral Punjab Technical University INDIA	ULTRASOUND ASSISTED EXTRACTION OF BIOACTIVE COMPOUND FROM PEARL MILLET (Pennisetum glaucum) AND UTILIZATION FOR PRODUCT DEVELOPMENT

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-5, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Mohamed DODO YACOUBA

AUTHORS	AFFILIATION	TOPIC TITLE
Mohamed DODO YACOUBA	School of Public Health and Social Services (ESPAS) NIGER	INTEGRATING TECHNOLOGY IN NURSING EDUCATION
Oumarou AMADOU BOUBACAR Mahirou ABDOURAZAKOU SEYNI	Abdou Moumouni University of Niamey NIGER	THE EVOLUTION OF CONSUMER BEHAVIOR IN THE DIGITAL AGE
Mahirou ABDOURAZAKOU SEYNI Oumarou AMADOU BOUBACAR	Abdou Moumouni University of Niamey NIGER	THE GIG ECONOMY AND THE FUTURE OF WORK: AN ANALYSIS OF TRANSFORMATIVE LABOR LANDSCAPES
Saadaoui Driss Eyaqouti Mustapha Assalaou Khalid Choulli Imade Lidaighbi Souad Arjdal Elhanafi Ben Hmamou Dris Elhammoudy Abdelfattah Abazine Ismail	Ibn Zohr University MOROCCO	A NOVEL HYBRID ANALYTICAL AND GENETIC ALGORITHM APPROACH FOR ACCURATE PARAMETER DETERMINATION IN SOLAR PHOTOVOLTAIC SYSTEMS
Chiara Bramucci Rosemary Abbagnale Francesco Pagnoni Ippolito Caputo Rodolfo Reda Luca Testarelli	Rome University ITALY	HEATH TREATED Ni-Ti ENDODONTIC INSTRUMENTS: STEP-BACK TECHNIQUE VS STEP-DOWN TECHNIQUE
S. Sindhuja S. Keshika Dr. S. Pavai Madheswari Dr. R. Subhashini Dr. Santhi M. George	R.M.K Engineering College INDIA	ADVANCEMENTS IN SMART WASTE MANAGEMENT SYSTEMS: A COMPREHENSIVE OVERVIEW
Ahanya Mariam Pockamthanam Antony Chandy Douglas Ruchit Dhanuka Sagaya Aurelia	CHRIST University INDIA	HOMEHIVE
Manav Mehta Taran Bhuee	Sharda University INDIA	FAKE NEWS DETECTION USING LSTM

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# ONLINE PRESENTATIONS

12.05.2024 / Hall-6, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Andrey Popatanasov

AUTHORS	AFFILIATION	TOPIC TITLE
Andrey Popatanasov Elitsa Petrova	Bulgarian Academy of Sciences BULGARIA Sofia University BULGARIA	'CHATAK MATAK' - THE HARYANVI HIT THAT INSPIRED THE CHOREOGRAPHERS AND DANCERS OVER THE GLOBAL CYBERSPACE. TRENDS AND PSYCHOLOGICAL NOTES
Anyasi, Raymond Oriebe Eze, Nnamdi Callistus Anyasi Raymond, Joyce Onyenaturuchi Ifechukwu, Paul Emeka	South Africa University SOUTH AFRICA Federal Polytechnic Nekede NIGERIA Tshwane University of Technology South Africa University SOUTH AFRICA	REVIEW ARTICLE PROFILING ENDOPHYTES AND ITS APPLICATIONS
Rissy Rachel Richard	Keningau Vocational College MALAYSIA	EDIFYING HISTORY VIA VIDEO GAMES
Zoltán Lehrer László Pittlik Dr. László Pittlik	Kodolányi János University HUNGARY	USB-PORT RISK ANALYSIS TO PROTECT USER DATA
Auwal Haruna Ismail Auwal Haruna Ismail Ali Hussaini Halima Balarabe Ahmed Bushra Lawan Gadanya	Aminu Kano College of Islamic and Legal Studies NIGERIA	A REVIEW ON ENVIRONMENTAL SANITATION AND HYGIENE PRACTICES IN DEVELOPING COUNTRIES: CHALLENGES, IMPACT ON PUBLIC HEALTH AND INTERVENTIONS
Swabanu Krothapalli Abinaya Kannan Santhosh Manoharan Karthikeyan Elumalai	Saveetha Institute of Medical and Technical Sciences INDIA	ADVANCES IN NANOBIO-MEDICINE: INNOVATIVE CANCER TREATMENT HELPS ELIMINATE THE NEED FOR SURGERIES AND EASES THE PROCESS FOR PATIENTS
Gupta Swati Sanjaykumar Rishabha Malviya	Galgotias University INDIA	ROLE OF ARTIFICIAL INTELLIGENCE IN NEUROLOGICAL DISORDERS
Fatima Daissa Belaidi Salah	Biskra University ALGERIA	DISCOVERING NEW ANTIBACTERIAL LEADS THROUGH MOLECULAR COMPUTER-AIDED DESIGN TECHNIQUES FOR NOVEL OXADIAZOLE DERIVATIVES

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-1, Session-1



ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Prof. Dr. Ahmet Niyazi ÖZKER

AUTHORS	AFFILIATION	TOPIC TITLE
Murat FİDAN Sevgi YÜCEL	Kastamonu University TÜRKİYE	THE IMPORTANCE OF MONEY FOUNDATIONS IN MEETING FINANCIAL NEEDS
Lect. Dr. Sergen GÜRSOY	Alanya Alaaddin Keykubat University TÜRKİYE	A SOLUTION PROPOSAL FOR THE IDLE STATE OF HUMAN CAPITAL NEET: FLEXIBLE WORKING
Keziban ALTUN ERDOĞDU	Dicle University TÜRKİYE	THE EFFECT OF WATCHING TELEVISION ON HAPPINESS: THE CASE OF TURKEY
Mustafa Oğuzhan BERİGEL Prof. Dr. Sami KARACAN	Kocaeli University TÜRKİYE	THE IMPACT OF INTELLECTUAL CAPITAL ON FIRM PERFORMANCE: A STUDY ON THE BIST BROKERAGE FIRM INDEX
Lect. Yağmur AKARSU	Çanakkale Onsekiz Mart University TÜRKİYE	HOW DOES THE WAR ECONOMY AFFECT THE TOURISM SECTOR?: ASSESSMENT OF THE RUSSIAN-UKRAINE WAR
Prof. Dr. Ahmet Niyazi ÖZKER	Bandırma Onyedli Eylül University TÜRKİYE	GOVERNMENT GROSS DEBTS IN TURKEY AND EVALUATING DEBTS EXPECTED BASED ON MACROECONOMIC PROJECTIONS
Güneş Rohat SOYSAL Assoc. Prof. Dr. Yunus AÇCI	İskenderun Technical University TÜRKİYE	DOES TRADE AND FINANCIAL OPENNESS AFFECT ECONOMIC GROWTH? EMPIRICAL EVIDENCE ON SELECTED OECD COUNTRIES
Lect. Yağmur AKARSU	Çanakkale Onsekiz Mart University TÜRKİYE	INCOME INEQUALITY AND POVERTY IN TURKEY

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-2, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assoc. Prof. Dr. Arzu DEVECİ TOPAL

AUTHORS	AFFILIATION	TOPIC TITLE
Abdulatif Ahmed Ali ABOLUHOM İsmet KANDİLLİ	Koçeli University TÜRKİYE	REAL-TIME FACE RECOGNITION BASED ON MULTI-TASK LEARNING WITH RASPBERRY PI
Assoc. Prof. Dr. Arzu DEVECİ TOPAL	Koçeli University TÜRKİYE	EXAMPLES OF ARTIFICIAL INTELLIGENCE-SUPPORTED LEARNING ANALYTICS IN EDUCATION: OPPORTUNITIES, PROSPECTS, CHALLENGES AND OBSTACLES
Mehmet ARATLI Assoc. Prof. Dr. Onur SEVLİ	Burdur Mehmet Akif Ersoy University TÜRKİYE	THE USE OF 3D DESIGN PROGRAMS AND 3D PRINTERS IN EDUCATION
Ömer Fikret YILMAZ Assist. Prof. Dr. Abdullah KAPICIOĞLU	Sivas Cumhuriyet University TÜRKİYE	MEETING THE ENERGY NEEDS OF A MILITARY FACILITY LOCATED IN A COLD CLIMATE ZONE WITH RENEWABLE ENERGY RESOURCES
Assoc. Prof. Dr. Koray ÖZŞEKER Dr. Tolga COŞKUN Neira Puurwanty ISMAIL Bilal ONMAZ	Karadeniz Technical University TÜRKİYE Middle East Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE Karadeniz Technical University TÜRKİYE	ALERT AT THE NATURAL WONDER UPPER DUDEN WATERFALL: SOLID WASTE POLLUTION
Mehmet Mikail YAĞCI Assoc. Prof. Dr. Onur SEVLİ	Burdur Mehmet Akif Ersoy University TÜRKİYE	ARTIFICIAL INTELLIGENCE IN FORENSIC SCIENCE, OPPORTUNITIES AND CHALLENGES
Lect. Yarkın ÇELİK	Tekirdağ Namık Kemal University TÜRKİYE	RISING MARKET SHARE OF WEARABLE TECHNOLOGY AND CONSUMER PREFERENCES
Lect. Yarkın ÇELİK	Tekirdağ Namık Kemal University TÜRKİYE	MOBILE MEDIA CONSUMPTION AND RESPONSIVE DESIGN IN NEWS WEBSITES: IMPORTANCE AND IMPACT
Dr. Hikmet ERBIYIK Dastan NURZHANOV	Yalova University TÜRKİYE	ARTIFICIAL INTELLIGENCE APPLICATIONS IN TOTAL EFFICIENT MAINTENANCE
Baş ŞANLI İrem ÇOKSERT	Erol Yüksel Ortaokulu Middle School, İstanbul, TÜRKİYE Sultanlar Ortaokulu Middle School, İstanbul, TÜRKİYE	SYSTEMATIC ANALYSIS OF THESES IN THE FIELD OF SCIENCE EDUCATION RELATED TO EDUCATION INFORMATICS NETWORK (EBA)

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-3, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Observer

AUTHORS	AFFILIATION	TOPIC TITLE
Abdulkadir YAĞIZ Prof. Dr. İsmail USTA Prof. Dr. Metin YÜKSEK	Marmara University TÜRKİYE	IMPROVEMENT OF SHIELDING PROPERTIES OF MILITARY VEHICLE CAMOUFLAGES AGAINST ELECTROMAGNETIC WAVES PRODUCED BY WARP KNITTING TECHNIQUE
Assist. Prof. Dr. İlkey ATAR Büşra AVCI Prof. Dr. Fatih MENGELOĞLU	Kahramanmaraş Sütçü İmam University TÜRKİYE	EFFECT OF THE USE OF AMMONIUM POLYPHOSPHATE ON CERTAIN MECHANICAL, PHYSICAL AND COMBUSTION PROPERTIES OF PARTICLEBOARD
Büşra AVCI Assist. Prof. Dr. İlkey ATAR Prof. Dr. Fatih MENGELOĞLU	Kahramanmaraş Sütçü İmam University TÜRKİYE	EFFECT OF THE USE OF CHICKEN FEATHER AND RED PINE WOOD FLOUR IN EPOXY BASED COMPOSITE PRODUCTION ON MECHANICAL AND PHYSICAL PROPERTIES
Selahattin Furkan ÖZTÜRK Prof. Dr. Adnan AKKURT	Gazi University TÜRKİYE	NUMERICAL ANALYSIS OF PHASE CHANGE OF PHASE CHANGE MATERIAL IN THERMAL ENERGY STORAGE SYSTEM UTILIZING COMPRESSOR WASTE HEAT
Simge EŞSİZ Assist. Prof. Dr. Muhammed ORDU	Osmaniye Korkut Ata University TÜRKİYE	EXPONENTIAL SMOOTHING APPROACHES FOR ESTIMATING THE DAILY PRICE OF THE GOLD PARTICIPATION FUND IN THE INDIVIDUAL PENSION SYSTEM
Assoc. Prof. Dr. Ahu ÇELEBİ Hilal YÜCE Emine İrem KAYA	Manisa Celal Bayar University TÜRKİYE	PRODUCTION OF AUXETIC STRUCTURES WITH SLA AND INVESTIGATION OF THE EFFECT OF CURING TIMES
Mehmet ARSLAN Hamit ERDEMİ Şevval Gökçe AKDENİZ	Yalova University TÜRKİYE	POLYSULFIDE-ENE POLYMERIZATION OF BISACRYLAMIDES AND BISMALIMIDES TOWARD SULPHUR-RICH POLYMERS
Figen GÖLCÜK ÖREN Prof. Dr. Hamit ERDEMİ	Yalova University TÜRKİYE	INVESTIGATION OF THE MECHANICAL AND PHYSICAL PROPERTIES OF GLASS POWDER AND TALK FILLED POLYPROPYLENE COMPOSITES
Tolga CENGİZ Prof. Dr. Başak MESCİ OKTAY	Ondokuz Mayıs University TÜRKİYE	INVESTIGATION OF METAL FOAM MATERIALS AND THEIR PROPERTIES: A REVIEW

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-4, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Muhammad FAISAL

AUTHORS	AFFILIATION	TOPIC TITLE
Res. Assist. Suneel Kumar Prof. Dr. Dashrath Singh	Mangalayatan University INDIA Krishna Pharmacy College INDIA	LEVERAGING ARTIFICIAL INTELLIGENCE FOR UROLITHIASIS DIAGNOSIS AND DISEASE PREDICTION
Dr. Muhammad FAISAL	Allama Iqbal Open University PAKISTAN	NAVIGATING WEB 3.0 HARNESSING AI AND BIG DATA FOR THE FUTURE OF VIRTUAL ENTERTAINMENT
Dr. Shouket Ahmad Kouchay	Islamic University Madinah SAUDI ARABIA	ENHANCING IOT SECURITY THROUGH AI-POWERED IMAGE PROCESSING
Dr. Shouket Ahmad Kouchay	Islamic University Madinah SAUDI ARABIA	ARTIFICIAL INTELLIGENCE: A COMPREHENSIVE ANALYSIS AND ECONOMIC IMPACT
Gowshalya T. Harhini K. A. Maha Swetha B. Lalitha Ramachandran	R.M.K Engineering College INDIA	BRIDGING COMPUTER SCIENCE, INFORMATION TECHNOLOGY, AND STATISTICS: ADVANCEMENTS IN DATA ANALYSIS AND DECISION MAKING
Rethika V Ranjani Y Pavithra M Monika Krishna Lalitha Ramachandran	R.M.K Engineering College INDIA	LEVERAGING DISCRETE MATHEMATICS FOR HEALTH CARE DECISION-MAKING
Gowshalya T. Harhini K. A. Maha Swetha B. Lalitha Ramachandran	R.M.K Engineering College INDIA	THE CORNERSTONE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY USING DISCRETE MATHEMATICS
Lawal Adetunji N. Adegbesan Ololade O.	Federal Polytechnic Ilaro Ogun State NIGERIA	INVESTIGATION ON THE PLASTICIZING EFFECT OF LEMON JUICE ON CONCRETE

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# ONLINE PRESENTATIONS

## 13.05.2024 / Hall-5, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

### HEAD OF SESSION: Zulfiqar Ali Khan

AUTHORS	AFFILIATION	TOPIC TITLE
Emad A. Abood Amer Al-Hammood Norahuda M. Azize	Alshatrah University IRAQ	THE EFFECT OF METAKAOLIN ON MODULUS OF ELASTICITY OF CONCRETE
Amina KHALFAOUI Sihem KECHIDA	8 Mai 1945-University ALGERIA 9 Mai 1945-University ALGERIA	CONSENSUS STUDY WITH DIFFERENT TOPOLOGIES AND TIME DELAY IN MULTI-AGENT SYSTEMS
Shahrukh Samson Wafa Majeed Farooq Azam Akmal Farooq	University of Agriculture PAKISTAN	PREVALENCE OF ERM(C) RESISTANCE GENES EXPRESSION IN STAPHYLOCOCCUS AUREUS IN COMPARISON TO LACTOBACILLI
K.R.Padma K.R.Don	Sri Padmavati Mahila Visvavidyalayam (Women's) University INDIA Bharath University INDIA	ENERGY HARVESTING INVESTIGATION OF PIEZOELECTRIC NANOGENERATORS AND ITS POTENTIAL APPLICATION AS SMART MATERIALS IN THE NEAR FUTURE
Engr. Hamza Khan Engr. Rehman Khan	Swedish College of engineering and technology Taxila PAKISTAN	SMART ELECTRIC VEHICLE CHARGING SYSTEM INTEGRATED WITH RENEWABLE SOURCES
Choayb BOUSNOUBRA Yacine DJEGHADER Hassen BELILA	Mohamed-Cherif Messaadia University ALGERIA Mohamed-Cherif Messaadia University ALGERIA Larbi Ben M'hidi University ALGERIA	INVESTIGATING A THREE-PHASE, FOUR-WIRE SHUNT ACTIVE POWER FILTER TO REDUCE HARMONICS
Sobia Mukhtar Prof. Dr. Matloob Ahmad Sana Aslam	Government College University PAKISTAN	N-ARYLATION OF CARBAZOLE DERIVATIVES
Zulfiqar Ali Khan	Government College University PAKISTAN	EXAMINING THE STRUCTURE AND SENSING PROPERTIES OF A NOVEL AIEE ACTIVE DEFERASIROX-BASED ORGANIC SENSOR USING SPECTROSCOPY AND DFT ANALYSIS

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-6, Session-1

ANKARA LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Zeeshan Asghar

AUTHORS	AFFILIATION	TOPIC TITLE
Atiya Shaheen Bushra Parveen Iqra Amin Muhammad Ismaeel Mehwish Amin	Government College University PAKISTAN	BIOACTIVE PENTA- AND HEXA-COORDINATED ORGANOTIN (IV) COMPLEXES WITH TRIDENTATE SCHIFF BASE
Palwinder Preet	I. K. Gujral Punjab Technical University INDIA	EVALUATION OF THE NUTRITIONAL AND SENSORY OF GLUTEN-FREE COOKIES MADE FROM RICE FLOUR, RAGI FLOUR, OATS FLOUR & GREEN BANANA FLOUR
A. Niveditha M.V. Silpa V. Sejian	Rajiv Gandhi Institute of Veterinary Education and Research INDIA	GENETIC APPROCHES TO BREED FOR CLIMATE RESILIENCE IN LIVESTOCK
Assist. Prof. Preethy KR. Keerthana SL. Ilakiya T. Anusha S. Kamushree T. Assoc. Prof. Chamundeeswari M.	St. Joseph's College of Engineering INDIA	HARNESSING STATISTICAL TECHNIQUES FOR SUSTAINABLE WATER PURIFICATION: A FOCUS ON PHOTOCATALYTIC DEGRADATION OF REACTIVE DYES
Isyaku Nike Tawakaltu Suleiman Jafaru Muawuya Ibrahim Tolulope James	Kebbi State University of Science and Technology NIGERIA	A SURVEY ON TICKS AND TICK-BORNE PARASITES IN CATTLE SLAUGHTERED AT JEGA ABATTOIR, KEBBI STATE, NIGERIA
Alexandrov V.S.	Kazan National Research Technical University named after A.N. Tupolev Kazan RUSSIA	A NEW METHOD FOR MONITORING AND DIAGNOSING THE TECHNICAL CONDITION OF SENSOR DEVICES BASED ON THEIR NOISE CHARACTERISTICS
Zeeshan Asghar	Prince Sultan University SAUDI ARABIA	ELECTRO-OSMOTIC EFFECTS ON MICRO-ORGANISMS SWIMMING THROUGH FLUID MEDIUM
Osamah Ihsan Ali Gyurika István Taha Hussein Mohammed	Pannonia University HUNGARY Pannonia University HUNGARY Babylon University IRAQ	IMPROVEMENT CHARACTERIZATION OF CVD COATINGS FOR MACHINING APPLICATIONS

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-1, Session-2



ANKARA LOCAL TIME



ZOOM ID: 860 5266 6988



12<sup>30</sup> : 14<sup>30</sup>



ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Mahmut BUYANKARA

AUTHORS	AFFILIATION	TOPIC TITLE
Sibel CANAKÇAY Assoc. Prof. Dr. Kemal GÖZ	Bilecik Şeyh Edebali University TÜRKİYE	GAZALI'S VIEW ON THE CONCEPTS OF AHISM, FUTUWWAT AND UHUVWAT
Songül ÖZEL	Yasemin Karakaya Science and Art Centre Ankara TÜRKİYE	PURPOSE OF SHARIA PROVISIONS IN ISLAMIC LAW
Osmancan EMİN	Yalova University TÜRKİYE	THE PLACE OF CONTEXT IN NASAFI COMMENTARY
Dr. Mahmut BUYANKARA	Bingöl University TÜRKİYE	EVALUATION OF SCHELLENBERG'S ARGUMENT OF DIVINE HIDDENNESS IN THE CONTEXT OF GOD'S ONTOLOGICAL STATUS AND HUMAN FREEDOM

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-2, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Prof. Dr. Oğuz MERHAN

AUTHORS	AFFILIATION	TOPIC TITLE
Emine YILDIRIM Prof. Dr. Şima ŞAHİNDURAN	Burdur Mehmet Akif Ersoy University TÜRKİYE	EFFECTS OF LEPTIN, GHRELIN, INSULIN HORMONES IN GASTRIC DISEASES IN CATTLE
Ceren KÖKLÜKAYA Prof. Dr. Şima ŞAHİNDURAN	Burdur Mehmet Akif Ersoy University TÜRKİYE	ENDOSCOPIC APPROACH TO INFLAMMATORY BOWEL DISEASE IN CATS AND DOGS
Lect. Ali Burak DÖRTKARDEŞ Prof. Dr. Şima ŞAHİNDURAN	Mehmet Akif Ersoy University TÜRKİYE	LAMINITIS IN FOALS
Prof. Dr. Kadir BOZUKLUHAN Prof. Dr. Oğuz MERHAN	Kafkas University TÜRKİYE	DETERMINATION OF PARAOXONASE-1 AND SOME BLOOD PARAMETERS IN ECTHYMA SHEEP
Prof. Dr. Kadir BOZUKLUHAN Prof. Dr. Oğuz MERHAN	Kafkas University TÜRKİYE	OXIDATIVE STRESS INDEX IN COENUROSIS DISEASE OF SHEEP
Hafice DEVECİ Assoc. Prof. Dr. Sultan BUTUN SENDEL	Eskisehir Osmangazi University TÜRKİYE	POLYSACCHARIDE-BASED MICROGELS USED AS A DRUG DELIVERY SYSTEM
Ayşe Gülnihal İSLAMOĞLU Assist. Prof. Celalettin TOPBAŞ	Health Sciences University TÜRKİYE	ROOT CANAL CONFIGURATIONS IN MANDIBULAR PREMOLAR TEETH IN A TURKISH SUBPOPULATION
Ali Osman İLHAN Assist. Prof. Celalettin TOPBAŞ	Health Sciences University TÜRKİYE	ENDODONTIC-PERIODONTAL LESIONS
Assist. Prof. Dr. Işıl KEÇİK BÜYÜKHATİPOĞLU Res. Assist. Kalben ŞAŞMAZ	Gaziantep University TÜRKİYE	THE CURRENT LASER SYSTEMS IN DENTISTRY

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-3, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Res. Assist. Elif ATICI TEKTAŞ

AUTHORS	AFFILIATION	TOPIC TITLE
Res. Assist. Elif ATICI TEKTAŞ	Eskişehir Osmangazi University TÜRKİYE	SUSTAINABILITY OF URBAN MEMORY THROUGH DIGITAL TECHNOLOGIES
Dilek KUL Assoc. Prof. Dr. Alper SAĞLIK	Çanakkale Onsekiz Mart University TÜRKİYE	ÇOMÜ TERZİOĞLU CAMPUS APPLICATION RECOMMENDATIONS FOR IMPROVING TRAFFIC SAFETY
Dilek KUL Assoc. Prof. Dr. Alper SAĞLIK	Çanakkale Onsekiz Mart University TÜRKİYE	VANDALISM OF REINFORCEMENT ELEMENTS IN ÇOMÜ TERZİOĞLU CAMPUS
Assist. Prof. Dr. Özgür KAHRAMAN Ceyda ÜNAL	Çanakkale Onsekiz Mart University TÜRKİYE	EVALUATION OF IDA MOUNTAINS ENDEMIC PLANT SPECIES IN TERMS OF MEDICINAL AND AROMATIC
Assist. Prof. Dr. Özgür KAHRAMAN Aynur KIRTI	Çanakkale Onsekiz Mart University TÜRKİYE	EVALUATION OF THE USE OF PUBLIC HOBBY GARDENS IN ÇANAKKALE CITY CENTER
Hazer TARIMCILAR	Bursa Uludağ University TÜRKİYE	READING URBAN CHANGE THROUGH THE ADAPTIVE CYCLE UNDER THE INFLUENCE OF SOCIO-ECONOMIC DETERMINANTS: BURSA-ÇEKİRGE
Dr. Nazlı BAL HATUNOĞLU	Firat University TÜRKİYE	DEER SYMBOLISM IN ANTALYA LEGENDS FROM GEYİK MOUNTAIN TO ABDAL MUSA

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-4, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Hafsa Naeem

AUTHORS	AFFILIATION	TOPIC TITLE
Aulia Isna Shinta Wati Hendri Hermawan Adinugraha	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	THE DYNAMICS OF THE SHIPBUILDING INDUSTRY IN BATANG, CENTRAL JAVA
Danae Duana-Ávila Fabiola Martinez Vargas	Autonomous University MEXICO	UNDERTAKING RENEWABLE ENERGIES AS AN ALTERNATIVE FOR MEXICO
M. Monica Dr. R. Saravanan Dr. R. Srinivasan	Bharath Institute of Higher Education and Research INDIA	FUNCTIONAL AND NUTRACEUTICAL SIGNIFICANCE OF AMLA (PHYLLANTHUS EMBLICA L.)
Mohd Raziq Lee bin Lee Ket Fui Nurmiza Nazifa binti Mohamad Zahid Hooi Peng Lim	Department of Mechanical Engineering, Politeknik Ibrahim Sultan, MALAYSIA	FABRICATION OF ENVIRONMENTAL- FRIENDLY PLASTIC BRICKS: A PROPOSAL STUDY OF RATIO CONTROL OF PLASTIC WASTE TO SAND
SAVARNA. K. SUSHMITHA. B. VAISHNAVI. D. MOHITHAA. M. THANGASHAKTHI. M.	R.M.K. Engineering College INDIA	MACHINE LEARNING FOR AIR QUALITY PREDICTION: INSIGHTS FROM DATASET
SAVARNA. K. SUSHMITHA. B. VAISHNAVI. D. MOHITHAA. M. THANGASHAKTHI. M.	R.M.K. Engineering College INDIA	THE ROLE OF DISCRETE MATHEMATICS IN ADVANCING BIOINFORMATICS RESEARCH
Mahashri Balakrishnan Sandhya M. Savithri Devi V. Saiitejasri K. Sai Chandini R. Lalitha Ramachandran	R.M.K Engineering College INDIA	IMPLEMENTATION OF DISCRETE MATHEMATICS IN EPIDEMIOLOGY
Hafsa Naeem	Agriculture University PAKISTAN	PRODUCTION OF BIO-PLASTIC AND ITS CHARACTERIZATION USING BANANA PEEL

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-5, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Prof. Dr. Mykola Vas'kiv

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Madan Lal Regar Ms. Kriti Sharma Assist. Prof. Mr. Atul	National Institute of Fashion Technology INDIA	MOJARI CRAFT
Sheila Arisonya Mulyani	UIN K.H Abdurrahman Wahid Pekalongan INDONESIA	RELIGIOUS MODERATION IN ADDRESSING DIVERSITY IN INDONESIA
Dwi Suci ANGGRAENI Ade GUNAWAN Santi Nailul IZATY	UIN K.H Abdurrahman Wahid Pekalongan INDONESIA	FULFILLMENT OF ACTUARIAL OWNERSHIP IN THE INSURANCE INDUSTRY
Mr. Aditya Sharan Mr. Aryan Jain	Symbiosis International University INDIA	FROM CRISIS TO SOLUTIONS: UNDERSTANDING THE SILENT THREAT OF AIR POLLUTION IN SOUTH ASIA
Dr. Soumaya KERSENNNA Dr. Sami ZERARI	Badji Mokhtar-Annaba University ALGERIA Biskra University ALGERIA	RE-THINKING THE ARCHITECTURE OF FERNAND POUILLON: TOWARDS A MODEL OF LOCAL URBAN DEVELOPMENT
Lect. PhD Irina-Ana DROBOT	Technical University of Civil Engineering Bucharest ROMANIA	LEATHER JACKETS: SYMBOLS AND ASSOCIATIONS
Assoc. Prof. Dr. Olha Bykova	Borys Grinchenko Kyiv Metropolitan University UKRAINE	LITERARY REPORTAGE ON TRAVELING TOPICS ON THE PAGES OF PERIODICALS OF THE 20S AND 30S OF THE 20TH CENTURY
Prof. Dr. Mykola Vas'kiv	Scientific Research Institute of Ukrainian Studies, Head of the Department of Ukrainian Philology, Kyiv, UKRAINE	LYRICS OF MAGTYMGULY PYRAGY IN HUNGARIAN TRANSLATIONS

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-6, Session-2

ANKARA LOCAL TIME

12<sup>30</sup> : 14<sup>30</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Tatiana Marisel Pizarro

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Chems Eddine BOUKHEDIMI	Tizi Ouzou University ALGERIA	ANALYZING THE IMPACT OF GENDER OF ALGERIAN TOURISTS ON THE HOLIDAYS LENGTH
Masauda Muhammad Umar Innocent Ojeba Musa Sanjoy Kumar Pal	Skyline University NIGERIA	DYNAMICS OF MICROBIAL POPULATION IN AIR, WATER AND SOIL
Rani Raudhotul Jannah	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	BUILDING BRAND AWARENESS THROUGH TIKTOK: THE INFLUENCE OF CREATIVE AND INTERACTIVE CONTENT IN REACHING MILLENNIAL CONSUMERS
Ukatu, V.E Usama, A.R	Kebbi State University of Science and Technology NIGERIA	DETERMINATION OF MOSQUITO ABUNDANCE, DIVERSITY AND MALARIA PREVALENCE AMONG THE INHABITANTS OF RIVERINE YAURI LOCAL GOVERNMENT AREA KEBBI STATE, NIGERIA
Dr. Tatiana Marisel Pizarro	Universidad Nacional de San Juan ARGENTINA	THE NOBODIES: THOSE WHO ARE NOT, EVEN THOUGH THEY ARE. AN EXPLORATORY ANALYSIS OF THE INCLUSION OF THE HOUSEWIFE AS A RETIREE UNDER THE PIP
Abdelghani Sougrati Dr. Mohamed Boumazgour Zakaria Taqui	Ibn Zohr University MOROCCO Ibn Zohr University MOROCCO Cadi Ayyad University MOROCCO	ABOUT THE NORM INEQUALITIES OF ELEMENTARY OPERATORS
Meisa Kurnia NATA Ria Anisatus SHOLIAH Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	USES OF ACCOUNTING INFORMATION FOR BANKS
Sinta ALIFTINA Ade GUNAWAN Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	OPTIMIZING COORDINATION STRATEGIES FOR COMBATING ILLEGAL FINANCIAL ACTIVITIES: A FOCUS ON SPECIAL TASK FORCES

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-1, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Assist. Prof. Dr. Leyla İŞBİLEN YÜCEL

AUTHORS	AFFILIATION	TOPIC TITLE
Zehra EĞİNKAYA Assist. Prof. Dr. Eda ÇINAROĞLU	Erciyes University TÜRKİYE	OPERATIONAL PERFORMANCE ASSESSMENT OF EUROPE'S BUSIEST AIRPORTS
Jale ERDEM Assist. Prof. Dr. Eda ÇINAROĞLU	Erciyes University TÜRKİYE	EVALUATION OF QUALITY PERFORMANCE OF STAR ALLIANCE SKYTEAM AND ONEWORLD MEMBER AIRLINES
Prof. Dr. Onur ÇOBAN Seda Eylül ÖZALP	Kocaeli University TÜRKİYE	EFFECT OF VOLCANIC PARTICLE REINFORCEMENT ON THE ADHESION PERFORMANCE OF ALUMINUM JOINTS
Assist. Prof. Dr. Leyla İŞBİLEN YÜCEL	İstanbul University TÜRKİYE	MEASURING THE RELATIONSHIP BETWEEN HUMAN DEVELOPMENT INDEX (HDI) AND HAPPY PLANET INDEX (HPI) WITH CANONICAL CORRELATION ANALYSIS
Aydın SELLİOĞ	Mersin University TÜRKİYE	THE EFFECT OF ACTIVITIES BASED ON PROJECT-BASED LEARNING APPROACH ON THE MATHEMATICS LEARNING PROCESS OF SECONDARY SCHOOL STUDENTS
Sare SAĞLAM Prof. Dr. Ömer Faruk GÖZÜKIZIL	Sakarya University TÜRKİYE	STABILITY ANALYSIS OF THREE PREDATORS-ONE PREY MODEL WITH FEEDBACK CONTROL AND CAPUTO FRACTIONAL DERIVATIVE
Nihan TURAN Prof. Dr. Metin BAŞARIR	Sakarya University TÜRKİYE	A STUDY ON THE SOLUTIONS OF THE Q-INITIAL VALUE PROBLEM WITH FIXED POINT THEORY
Assist. Prof. Gözde Yıldız DAŞ GEÇİM	Amasya University TÜRKİYE	EVALUATION OF ABUSE, LONELINESS AND DEPRESSION IN OLDER ADULTS

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-2, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Santi Nailul IZATY

AUTHORS	AFFILIATION	TOPIC TITLE
Aulia Putri FEBRIANTI Santi Nailul IZATY Ria Anisatus SHOLIHAH	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	BANKING RESILIENCE REMAINS MAINTAINED AMID STRENGTHENING US DOLLAR AND GLOBAL GEOPOLITICAL PRESSURE
Lailatul Fadhillah Ria Anisatus SHOLIHAH Santi Nailul Izaty	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	THE INFLUENCE OF INDONESIA'S FUNDAMENTAL ECONOMIC STRENGTHS ON DAMPENING THE MIDDLE EAST CONFLICT
Indah Aura SALSADILA Ade GUNAWAN Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	THE TASK FORCE WILL DEFINITELY STRENGTHEN COORDINATION IN ERADICATING ILLEGAL FINANCIAL ACTIVITIES
Lulu Maulida Zahra Ria Anisatus Sholihah Sinta Nailul Izaty	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	GOVERNMENT'S SUCCESS IN HANDLING THE PANDEMIC & ACCELERATING ECONOMIC RECOVERY
Neki Barokah	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	ANALYSIS OF GHARAR IN THE PRACTICE OF BUYING AND SELLING TRANSACTIONS USING THE TEBASAN SYSTEM FOR RICE HARVESTS (STUDY CASE KLAIRAN KAIBAHAN VILLAGE KESESI SUBDISTRICT)
Wardah Amrillah HASANAH Ria Anisatus SHOLIHAH Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	SIGNALS THAT THE ECONOMY WILL BECOME DIFFICULT AFTER THE BI RATE RISES, AND THIS IS UNDENIABLE
Reinita ANGGRAENI Ria Anisatus SHOLIHAH Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	DYNAMICS OF INDONESIA'S ECONOMIC GROWTH IN 2023 AND PROJECTED CHALLENGES FOR 2024
Muhammad Jamil Ade Gunawan Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	BANK INDONESIA PROJECTS INDONESIA'S SHARIA ECONOMY TO GROW 4.7-5.5 PERCENT IN 2024

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# ONLINE PRESENTATIONS

13.05.2024 / Hall-3, Session-3

ANKARA LOCAL TIME

15<sup>00</sup> : 17<sup>00</sup>



ZOOM ID: 860 5266 6988

ZOOM PASSCODE: 111213

## HEAD OF SESSION: Ade GUNAWAN

AUTHORS	AFFILIATION	TOPIC TITLE
Rifky RAMADHANI Ade GUNAWAN Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	STRONG LEVEL OF STABILITY IN THE FINANCIAL SERVICES SECTOR AMID CONTINUOUS GLOBAL CHALLENGES
B. Pharm A. DINESH BABU Assoc. Prof. R. JOTHILAKSHMI Prof. Dr.R.SRINIVASAN	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	GREEN TEA--AN ANTIOXIDANT MYSTIC HERB
Novidhoh KAHAR Ria Anisatus SHOLIHAH Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	OJK: FINANCIAL SERVICES REMAIN RESILIENT AND CONTRIBUTE TO SUPPORTING GROWTH
Md. Ashraful Amin Md Amirul Islam Jahid Hasan Rana Abdul Kader Jelane	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	CURRENCY WARS IN INTERNATIONAL TRADE: IMPLICATIONS FOR FOREIGN DIRECT INVESTMENT AND EXPORT STRATEGIES
Dini SYAFA'ATI Ade GUNAWAN Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	FINANCIAL SERVICES SECTOR STRONG IN FACING POTENTIAL SLOWDOWN IN GLOBAL ECONOMIC GROWTH
Sabrina Diva Nur Rahmadani Amalia Ayuningtyas Septya Wulan Savitri Rani Dwi Saputri Salsa Sabila	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	BUSINESS ETHICS CULTURE IN THE FORMATION OF EMPLOYEE PERFORMANCE MANAGEMENT
Utami Nur Fadhilah Ria Anisatus Sholihah Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	SHARIA FINANCIAL LITERACY AND INCLUSION ARE STILL NOT OPTIMAL
Muhamad SUBAGIYO Ade GUNAWAN Santi Nailul IZATY	UIN K.H. Abdurraman Wahid Pekalongan INDONESIA	ANALYSIS OF BANK INDONESIA'S INTEREST RATE HIKE POLICY IN 2024

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## HEAD OF SESSION: PhD. Habil. Cristina Raluca

AUTHORS	AFFILIATION	TOPIC TITLE
Mahashri Balakrishnan Sandhya M. Savithri Devi V. Saitejasri K. Sai Chandini R. Lalitha Ramachandran	R.M.K Engineering College INDIA	IMPLEMENTATION OF CONFIDENCE INTERVALS IN FINANCIAL ANALYSIS
Nestle Zuri P. Garcia Keneth John Fuentes Christine Gel L. Cionelo Charlene A. Casinillo Dr. Mark Anthony N. Polinar	Mabolo National High School, Student-researcher, Senior High School Department, Cebu City PHILIPPINES	FINANCIAL KNOWLEDGE, BEHAVIOR, AND ATTITUDE OF ACCOUNTANCY, BUSINESS, AND MANAGEMENT (ABM) SENIOR HIGH SCHOOL STUDENTS OF MABOLO NATIONAL HIGH SCHOOL
Miguel Gonçalves Ana Neves Inês Baptista	Coimbra Polytechnic University PORTUGAL	SOME INSIGHTS ABOUT THE FIRST ACCOUNTING PRINTED BOOK IN PORTUGAL
HOUNDEJI Pamphile HESSOU Mariano A. N. A.	Abomey Calavi University BENIN	DYNAMIC FACTORS OF LAND MARKETS IN THE MUNICIPALITIES OF ADJARRA AND AVRANKOU (BENIN)
Full-Professor PhD. Habil. Cristina Raluca Gh. Popescu	Bucharest University of Economic Studies ROMANIA	ENVISIONING INTERNATIONAL TRADE AND LOGISTICS FOR THE SUSTAINABLE DEVELOPMENT GOALS (SDGS): RESPONSIBLE PLANT, TREE, AND LIVESTOCK LOGISTICS FOR GREENING AND CONSERVING THE ENVIRONMENT
Full-Professor PhD. Habil. Cristina Raluca Gh. Popescu Full-Professor PhD. Gheorghe N. Popescu	Bucharest University of Economic Studies ROMANIA	FRAMEWORKS FOR CUSTOMER RELATIONSHIP MANAGEMENT (CRM) AND COLLABORATIVE PLANNING, FORECASTING, AND REPLENISHMENT (CPFR) FOR THE SUSTAINABLE DEVELOPMENT GOALS (SDGS): ENVISIONING A QUALITY- ORIENTED MODEL IN TURKEY
Mandana Gharehdaghi	Pannonia University HUNGARY	LEVERAGING BLOCKCHAIN FOR TRUST ENHANCEMENT IN SUPPLY CHAIN SOCIAL NETWORKS

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ZOOM PASSCODE: 111213

## HEAD OF SESSION: Dr. Chems Eddine BOUKHEDIMI

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Dr. Gentrit SMAKAJ	Independent Researcher KOSOVO	SAN STEFANO TREATY AND THE BALKAN PEOPLES
Dr. Ljiljana Simonović Grujić Natalija Jovanović	Independent Researcher SERBIA	THE TYPES OF ADOLESCENT STRESSFUL EVENTS AS A BASIC FOR MENTAL-HYGIENIC MEASURES TO MAINTAIN AND STRENGTHEN PHYSICAL AND MENTAL HEALTH
Dr. Chems Eddine BOUKHEDIMI	Tizi Ouzou University ALGERIA	ASSESSING THE NEXUS BETWEEN E-SATISFACTION AND E-WOM IN THE ALGERIA CONTEXT
Alice Sisinno	Università degli Studi di Milano ITALY	THE RIGHT TO SELF-DETERMINATION SEEN THROUGH ARTWORK: THE MONUMENT OF THE FIVE DAYS OF MILAN
Valeriya LIKHACHEVA	Baranovichi State University BELARUS	UNVEILING CHARACTER TRAITS IN FAIRY TALES THROUGH LEXICAL AND STYLISTIC DEVICES
Saida ID Ouaziz Mohammed EL Khomssi	Sidi Mohamed Ben Abdellah University MOROCCO	ANALYSIS OF CORRUPTION DYNAMICS WITH THE LANCHESTER MODEL
Rakhymbaeva Gulbarshyn Abdikalykovna	Arnaiy teacher, speech therapist KMM Gymnasium №15. Almaty k. KAZAKHSTAN	БАСТАУЫШ СЫНЫП ОҚУШЫЛАРЫНЫҢ СӨЗДІК ҚОРЫН ДАМУЫ

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## REFINING MAXIMUM POWER POINT TRACKING: OPTIMIZING THE PERTURB AND OBSERVE ALGORITHM FOR STANDALONE SOLAR PHOTOVOLTAIC SYSTEMS

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### ABSTRACT

The pursuit of maximum power point tracking (MPPT) in photovoltaic systems has been a fundamental challenge in renewable energy generation. This Paper introduces a novel and sophisticated technique known as Optimized Perturb and Observe (OP&O), aimed at revolutionizing MPPT strategy. OP&O optimizes the energy capture efficiency of photovoltaic systems while overcoming the limitations of traditional perturb and observe algorithms. The OP&O algorithm leverages real-time power output information and environmental conditions to intelligently adjust perturbation direction, magnitude, and frequency. By dynamically choosing the direction of perturbation based on the amount of change in power, OP&O removes steady-state oscillations and accelerates the tracking speed towards the maximum power point (MPP). This adaptability, tailored to specific system dynamics and ever-changing solar irradiance, ensures a robust and efficient MPPT process. Through extensive simulation studies, OP&O demonstrated remarkable performance improvements over existing P&O MPPT algorithms. The ability of the technique to adapt to varying conditions and swiftly converge to the MPP results in an increased energy yield, reduced power losses, and extended operational lifetimes of photovoltaic systems. This paper not only presents the theoretical foundations and application implantation details of the OP&O technique, but also highlights its practical feasibility and advantages in real-world applications. The OP&O algorithm is a promising solution to address the challenges associated with MPPT in photovoltaic systems, contributing significantly to the advancement of renewable energy generation. Its potential impact exceeds that of solar energy and offers valuable insights into adaptive control strategies for various energy harvesting systems.

**Introduction and Purpose:** The pursuit of maximum power point tracking (MPPT) in photovoltaic systems has been a fundamental challenge in renewable energy generation. This Paper introduces a novel and sophisticated technique known as Optimized Perturb and Observe (OP&O), aimed at revolutionizing MPPT strategy. OP&O optimizes the energy capture efficiency of photovoltaic systems while overcoming the limitations of traditional perturb and observe algorithms.

**Materials and Methods:** The OP&O algorithm leverages real-time power output information and environmental conditions to intelligently adjust perturbation direction, magnitude, and frequency. By dynamically choosing the direction of perturbation based on the amount of change in power, OP&O removes steady-state oscillations and accelerates the tracking speed towards the maximum power point (MPP). This adaptability, tailored to specific system dynamics and ever-changing solar irradiance, ensures a robust and efficient MPPT process.

**Results:** Through extensive simulation studies, OP&O demonstrated remarkable performance improvements over existing P&O MPPT algorithms. The ability of the technique to adapt to varying conditions and swiftly converge to the MPP results in an increased energy yield, reduced power losses, and extended operational lifetimes of photovoltaic systems.

**Key Words:** Solar Photovoltaic; Maximum Power Point Tracking; MPPT Algorithms; Perturb & Observe algorithm, Optimized P&O algorithm.

## 11 SEPTEMBER ATTACK AND CRISIS IN AFGHANISTAN

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### **ABSTRACT**

September 11 is one of the most enduring historical events that led to the United States invasion of Afghanistan. The American government of the period when George Bush was president saw it as its right to defend its country through the major military operation it carried out within the scope of the fight against terrorism, in secret agreement with the international community, with the logic that its country was attacked by international terrorists. Therefore, this military attack was launched against Afghanistan. The United States initially used the September 11 incident as a perfect tool to implement imperialist policies and establish its hegemonic policy in the world system, especially in the Middle East, in order to find a way to dominate the world system. Because, after the collapse of the Soviet Union in the 1990s, the opportunity arose for America to once again assume the leadership position of NATO, especially as the only hegemonic power in the world, and to implement its foreign policy in a unipolar world. According to the Western world, international terrorism, confronting independent governments and liberation movements opposing the developmental policies of the West, confronting the production and use of weapons of mass destruction, and the extraction and transfer of energy (oil and gas) were all present in the (Middle East). For this reason, the aim of this study is for the USA to destroy international terrorist organizations in Afghanistan, especially Al-Qaeda, and on the other hand, for the USA to establish a new democracy-based political order and system along with ensuring stability in Afghanistan, and to leave Afghanistan after being defeated without being able to achieve these. Important issues such as withdrawal were discussed.

**Key Words:** September 11 incident, Afghanistan, USA, Instability, Crisis

**GENDER PREDICTION USING MACHINE LEARNING ALGORITHMS AND  
ARTIFICIAL NEURAL NETWORKS WITH PARAMETERS OBTAINED FROM  
SINUS SPHENOIDALES VIA COMPUTED TOMOGRAPHY**

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**ABSTRACT**

**Introduction and Purpose:**

The aim of this study is to accurately predict the gender of patient individuals whose sinus sphenoidales values are measured with a computed tomography device.

**Materials and Methods:** In this study, the length, width and volume measurements of the sinus sphenoidales were evaluated from the computerized tomography images of a total of 300 individuals, 150 men and 150 women, aged 18-65, obtained from the archives of the department of radiology. Machine learning (ML) algorithm models include Linear Discriminant Analysis (LDA), Quadratic Discriminant Analysis (QDA), Logistic regression (LR), Extra Tree Classifier (ETC), Random Forest (RF), Decision Tree (DT), Gaussian Naive Bayes ( GaussianNB), K-Nearest Neighbors (k-NN) algorithms were used.



**Results:** Compliance of the data with normal distribution was checked with the Anderson Darling test. For comparisons in terms of gender, Mann Whitney U test was used for non-normally distributed data. The length, width and volume of the sinus sphenoidale on the left and right sides were significantly higher in male individuals than in female individuals ( $p < 0.05$ ). As a result of ANN's MLCP model, the highest Acc rate was found to be 0.82 in 1000 training times. In the models with the highest Acc ratio, 20 of 22 male individuals and 17 of 22 female individuals were predicted correctly.

**Discussion and Conclusion:** As a result of this study, the gender prediction of LDA, LR, DT ANN, which are machine learning methods, was found to be higher than the gender prediction rate in forensic medicine; The prediction of RFC, ETC, GaussianNB, QDA, k-NN methods was found to be low. In gender prediction; Measurements of the sphenoidal sinus are a useful tool to evaluate.

**Key Words:** Artificial intelligence; Gender

**PATHOPHYSIOLOGY, DIAGNOSIS AND TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE CAUSED BY RISK FACTORS**

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**ABSTRACT**

Chronic obstructive pulmonary disease (COPD) is a chronic inflammatory lung disease that causes obstructed airflow from the lungs. Symptoms include breathing difficulty, cough, mucus (sputum) production and wheezing. It's typically caused by long-term exposure to irritating gases or particulate matter, most often from cigarette smoke. People with COPD are at increased risk of developing heart disease, lung cancer and a variety of other conditions. Emphysema and chronic bronchitis are the two most common conditions that contribute to COPD. These two conditions usually occur together and can vary in severity among individuals with COPD.

**Keywords:** Lungs, Chronic obstructive disease, Diagnosis, Treatment, Physiology

## GENERAL OVERVIEW OF ADVANCEMENTS IN AIRFOIL DESIGNS: FROM FLOW CONTROL TO OPTIMIZATION

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### ABSTRACT

This article offers a broad overview of advancements in airfoil designs. Airfoils are essential components in aircraft, wind energy systems, and helicopters, significantly influencing aerodynamic performance throughout different stages of flight. Their design directly shapes lift and drag forces, crucial for flight efficiency and stability. The text explores theoretical analysis methods, computer-assisted calculations, and numerical simulations utilized in airfoil design, including Thin Airfoil Theory, Vortex Panel Method, and Computational Fluid Dynamics (CFD), facilitating the improvement, and forecasting of aerodynamic performance. Various applications require specific airfoil designs and performance characteristics, prompting the adoption of various flow control methods, such as passive and active control, to enhance aerodynamic performance. Moreover, incorporating intelligent shape memory materials into airfoil design enables adaptability to changing flow conditions, thereby optimizing aerodynamic performance. The conversation also delves into tailoring airfoil designs for Unmanned Aerial Vehicles (UAVs) to meet mission requirements. Furthermore, airfoil design optimization utilizes data-centric approaches like big data analytics and machine learning, nurturing the exploration of more efficient airfoil shapes. Notably, Particle Swarm Optimization (PSO) emerges as a noteworthy algorithm for optimizing airfoil design. Approaches to applying particle swarm optimization method in airfoil design have been explained. In conclusion, the text underscores the importance of employing advanced analysis techniques, flow control methods, optimization strategies, and intelligent material integration to develop adaptable and high-performing airfoil designs across a range of applications.

**Key words:** Airfoil; Aerodynamics; CFD; Optimization; Particle Swarm Optimization

## THE RELATIONSHIP BETWEEN 2D:4D RATIO AND FINE MANUAL DEXILITY IN INDIVIDUALS AGED 18-25 YEARS OLD

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### ABSTRACT

#### Introduction and Purpose:

Fingers have unique morphological features. The most obvious of these is the 2D:4D ratio, which remains constant throughout life, starting from the 14th week of intrauterine life. The 2D:4D ratio is a sexually dimorphic and biometric marker. This ratio is determined genetically by HOX genes. The main purpose of this study is to examine the relationship between 2d:4d ratio and fine manual dexterity in young individuals.

#### Materials and Methods:

A total of 100 individuals, 50 women and 50 men, who agreed to participate in the study between the ages of 18-25, were included in the study. The individuals' 2d/4d ratio was measured with a digital caliper, and fine manual dexterity was measured with the nine-hole PEQ test. After collecting the participants' data, statistical evaluation was made with SPSS Statistics 23 software.

#### Results:

In our study, the normality test was performed with the Shapiro Wilk test. The correlation value was examined with the Spierman rho correlation test. In our study, when the correlation between the 2d/4d ratio and fine dexterity on the dominant and nondominant sides in male and female individuals was examined, no statistically significant relationship was observed ( $p > 0.05$ ).

#### Discussion and Conclusion:

When we look at the studies in the literature in general, it has been determined that hand motor skills are better in women than in men. However, in our study, it can be said that 2d/4d finger ratios are not determinant on fine dexterity.

**Key Words:** 2d to 4d ratio; Manual dexterity; Physical therapy and rehabilitation; Anatomy;

**REFUTATION, TREATMENT AND DIAGNOSTIC STUDY OF  
PATHOPHYSIOLOGICAL FEATURES OF PHARYNGITIS**

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**ABSTRACT**

Acute pharyngitis is typically described as the triad of sore throat, fever, and pharyngeal inflammation characterized by erythema and edema, although exudates, vesicles, or ulcerations may also be present.<sup>1</sup> Although pharyngitis may be a primary disorder, sore throat and pharyngeal erythema may also be prominent in systemic disorders, such as the acute retroviral syndrome, or part of a more generalized upper respiratory tract infection. Most cases of acute pharyngitis are due to common viral infections and are benign, self-limited processes. The appropriate recognition of patients with more complicated infections that require diagnostic evaluations and treatment is one of the challenges of primary care medicine.

**Keywords:** Pharyngitis, Treatment, Diagnosis, Pathophysiology

## ENHANCING WIND TURBINE EFFICIENCY: ANALYSIS OF FLOW CHARACTERISTICS IN 3-BLADE DARRIEUS TURBINES

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### **ABSTRACT**

To generate more electrical energy from wind energy, which is one of the renewable forms of energy, the efficiency of wind turbines is crucial. In regions with low wind speeds and frequent changes in wind direction, vertical-axis wind turbines are more suitable compared to horizontal-axis ones. Despite the self-starting capability of Savonius turbines, their low efficiency leads to the preference for Darrieus turbines. Although there are various types of Darrieus turbines, aerodynamic performance analyses are conducted on the same basis. In this study, the flow characteristics determining the performance of a 3-blade Darrieus turbine were analyzed using two-dimensional unsteady CFD. The better the flow is analyzed; the more accurate design improvements can be made in Darrieus turbine design. Eight different flow characteristics (velocity field, velocity stretched swirling strength, turbulent kinetic energy, turbulence intensity, total pressure, turbulent eddy dissipation, velocity invariant  $Q$ , velocity swirling strength) were evaluated using contour plots. Additionally, torque versus time and power coefficient-tip speed ratio ( $C_p$ -TSR) graphs were obtained. The maximum  $C_p$  value of the designed turbine was obtained as 0.36 at an TSR of 3. Contour plots provide important insights into understanding the flow, and it has been understood that further advancements in such studies can contribute to design improvements.

**Key words:** Wind turbine efficiency; Flow characteristics analysis; 3-Blade Darrieus turbine; Design improvements; Computational Fluid Dynamics (CFD)

## INVESTIGATION OF THE TENSILE STRENGTHS OF PLA AND RE-PLA PRODUCED IN DIFFERENT FILLING PATTERNS WITH A 3D PRINTER

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### ABSTRACT

3D manufacturing technology; It has become increasingly important today with its advantages that reduce the restrictive limits of design, facilitate the production of complex shaped designs and minimize production waste. Designing and producing functional parts for fields such as engineering and biomedical is the main goal of this technology. In this study, tensile and compression test samples with different filling directions were produced using melt deposition modeling (FDM) production technology, polylactic acid (PLA) and recycled polylactic acid (Re-PLA) materials, which is one of the 3D printing technologies, and the effects of filling directions on tensile and compressive strength were investigation. Vertical truss, horizontal truss and 50% filling ratio were used as production parameters in the study. The results showed that the PLA and Re-PLA material orientation in 3D printing has a significant effect on the mechanical strength of the parts. The samples produced in the vertical direction (PLA- and Re-PLA) exhibited higher tensile strength and elasticity than those produced in the horizontal direction (PLA and Re-PLA). Additionally, the yield point of samples produced in the vertical direction reached higher stress values. Compressive tests confirmed that PLA and Re-PLA samples produced in the vertical direction had higher compressive strength than horizontal samples. Additionally, the yield point of samples produced in the vertical direction reached higher stress values. Compressive tests have confirmed that PLA and Re-PLA samples produced in the vertical direction have higher compressive strength than horizontal samples.

**Keywords:** Polylactic Acid (PLA), Recycled Polylactic Acid (Re-PLA), 3D Printer, Tensile Strengths.

## **PHYSIOLOGICAL AND PATHOLOGICAL CHARACTERISTICS OF FALSE, IATROGENIC AMENORRHEA**

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### **ABSTRACT**

Secondary amenorrhea (the absence of menses for three consecutive cycles) and infertility (the inability to conceive after 12 months of regular intercourse) are common complaints evaluated by primary care physicians, obstetrician/gynecologists, and endocrinologists. Over 50% of cases of secondary amenorrhea result from perturbations in the hypothalamic-pituitary-adrenal (HPA) axis. An understanding of the neuroendocrine causes of amenorrhea and infertility is therefore critical when evaluating patients presenting with these complaints in order to implement the most appropriate treatment regimen.

**Keywords:** False, Iatrogenic amenorrhea, Physiology, Pathology



**PATHOPHYSIOLOGICAL CONDITIONS OF SICKLE CELL ANEMIA, SURGICAL TREATMENT OF SPINAL PATHOLOGY IN SCD**

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**ABSTRACT**

Sickle cell disease (SCD) is a type of blood disorder that follows an autosomal recessive pattern of inheritance. SCD is caused by a point mutation in the  $\beta$ -globin chain of hemoglobin, causing the hydrophilic amino acid glutamic acid to be replaced with the hydrophobic amino acid, valine, at the sixth position. The  $\beta$ -globin gene is found on the short arm of chromosome 11. The abnormal morphology of hemoglobin in this condition starkly reduces the flexibility of red blood cells so that they become a rigid, sickle shape in the setting of low oxygen tension. Once “sickled,” these cells are not able to conform back into their normal biconcave disc shape even after normal oxygen tension has returned.

**Keywords:** Sickle cell anemia, Pathophysiological conditions, Surgical treatment

**PATHOPHYSIOLOGY, TREATMENT, AGE CHARACTERISTICS OF  
AGAMMAGLOBULINEMIA (BRUTON'S DISEASE)**

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**ABSTRACT**

Agammaglobulinemia or hypogammaglobulinemia is a rare inherited immunodeficiency disorder, characterized by low or absent B cells with absent immunoglobulins. X-linked agammaglobulinemia being the most common type. Mainly presents after 6 to 9 months of age when maternal antibodies wear off. This can lead to life-threatening recurrent sinopulmonary and gastrointestinal infections. To avoid the high morbidity and mortality associated with this condition, it must be promptly diagnosed and treated. This activity reviews the evaluation and treatment of agammaglobulinemia and highlights the role of the interprofessional team in evaluating and treating patients with this condition.

**Keywords:** Agammaglobulinemia, Bruton's disease, Pathophysiology, Treatment

## EXAMINING STOIC PHILOSOPHY IN ACTION: A LOOK AT ADDISON'S CATO

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### ABSTRACT

Stoicism is an ancient Greek philosophy that emphasizes living a virtuous life based on reason and self-control. Stoics believed that happiness comes from accepting what you cannot control and focusing on what you can - your own thoughts and actions. Addison in his 1712-play Cato revisits Stoic philosophy. Centred on the final day of Cato the Younger, a historical figure renowned for his adherence to Stoicism, Addison's Cato offers a rich examination of this philosophy's core tenets. Moving beyond simplistic representations, Addison presents a nuanced portrayal of Stoicism. Within this framework, this paper seeks to portray Stoic philosophy in the play, and, through the lens of Cato's actions and decisions, it investigates how he reflects key Stoic principles such as virtue, reason, and emotional control. This analysis of Cato aims to illuminate not only the influence of Stoicism on the play's characters and plot, but also the potential complexities and limitations of this philosophical system within a dramatic context.

**Key Words:** Stoicism; Stoic Philosophy; Addison

## A QUALITATIVE STUDY ON MOTHERS' VIEWS ON CHILDREN'S SEXUAL DEVELOPMENT

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### ABSTRACT

**Introduction and Purpose:** The aim of this research is to determine the views of mothers who have children aged zero to six on sexual development.

**Materials and Methods:** The research, designed with a qualitative research pattern, specifically used the phenomenological approach, consisted of 20 mothers living in Ankara and selected through purposeful and appropriate sampling, who have children aged zero to six. "General Information Form" and "Mother Interview Form" were used as data collection tools. The General Information Form contains questions aimed at determining the socio-demographic characteristics of the parents and their children. The Mother Interview Form, on the other hand, is a semi-structured form prepared by the researchers and finalized based on expert opinions. Descriptive analysis and content analysis were used in the analysis of the data.

**Results:** As a result of the research, it was observed that mothers define sexual development as the process of gaining awareness about the child's own gender, and they believe that sexual development starts between the ages of two to five. Most of the mothers stated that sexual education should start within the family and be supported by schools; sexual education will contribute to the healthy development of the child's sexual identity; appropriate responses should be given to the child's age and developmental level during sexual education; and if sexual education is not provided to the child, there is a risk of children learning information from incorrect sources.

**Discussion and Conclusion:** Recommendations were made to families, professionals, and educators based on the findings obtained from the research.

**Key Words:** Sexual development, mother, child

## INVESTIGATION OF THE MECHANICAL AND DIMENSIONAL STABILITY BEHAVIOR OF HDPE O-RING PART UNDER DIFFERENT PROCESS CONDITIONS

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### ABSTRACT

**Introduction and Purpose:** Pipe connections used in underground fluid transport lines are joined to each other either by welding or mechanically. These connections especially allow the passage of fluid in a leak-proof manner. Butt welding, electrofusion welding and socket fusion welding are generally used in non-detachable pipe connections. In detachable connections, there are mechanically nailed and screwed joints. In our study, O-Ring made of high density polyethylene (HDPE) material, which provides sealing in mechanical screw joints, was manufactured by injection molding method using different ironing pressure and melt temperature parameters. As a result of different experiments, the experiment with optimum dimensional stability was determined.

**Materials and Methods:** In this study, O-Ring, which is more rigid and also known as flexible support ring, was preferred to ensure dimensional stability by absorbing the force applied in static and dynamic situations. In the study, samples were printed in 6 variations in a 4-cavity injection mold at three different process temperatures (190-200-210°C) and two different ironing pressures (50 and 60 bar). In the process conditions, injection pressure, injection speed, ironing time, cycle time and mold temperature were kept constant. Mechanical and dimensional stability tests were applied to the samples printed with plastic injection in accordance with the place of use. Ring flexibility (TS EN ISO 13968) test and hardness (Shore D) test were applied, which tested the fracture, collapse and dimensional stability ability of the samples after mechanical force against instantaneous loads (such as vehicle-to-vehicle transitions). To determine the dimensional stability, first the values of shrinkage and distortions in the mold were determined in the Moldex3D® flow analysis program, and then measurements were made on the part with a digital caliper. Optimum test parameters were tried to be obtained by comparing the test results of samples obtained under different process conditions.

**Results:** The ability of the samples obtained as a result of different experiments to return to their original state after the applied force (dimensional stability), shrinkage-distortion in the mold (2.45%), hardness (59.37), ring elasticity strength (4.9 N/mm<sup>2</sup>) and shortening rate. As a result of the (17.46%) tests, the optimum trial (DNM5) was determined.

**Discussion and Conclusion:** As a result, it has been observed that the dimensional stability data of the O-Ring element, which works in harmony with the stretching movement of the pipe and can return to its previous state by absorbing the dynamic or static force applied to it, has a significant effect on the sealing.

**Key Words:** Determination of ring elasticity; Tensile distortion; Hardness test; Dimensional stability.

## MEASURING THE RELATIONSHIP BETWEEN HUMAN DEVELOPMENT INDEX (HDI) AND HAPPY PLANET INDEX (HPI) WITH CANONICAL CORRELATION ANALYSIS

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### ABSTRACT

**Introduction and Purpose:** In this study, the relationship between the Human Development Index (HDI) and the Happy Planet Index (HPI), which were created based on the idea that people's happiness, welfare and development cannot be explained only by economic growth, is tried to be measured by Canonical Correlation Analysis. Since both indices are like a data set rather than a variable with their structure consisting of 3 sub-components each, it is aimed to show how the relationship between them is misleading when measured by Classical Pearson Correlation Analysis. This is because the Classical Pearson Correlation Analysis considers the variables in pairs and cannot make a holistic inference. Canonical Correlation Analysis, on the other hand, considers the variables as a whole with their sub-components and measures the relationship through the canonical variables it creates. **Materials and Methods:** The canonical relationships between HDI and HPI were measured for 34 OECD countries. Korea, Costa Rica, Luxembourg and Turkey were excluded as some data were not available for these 4 countries. The data of the study belongs to 2020, which is the most recent common cluster for HDI and HPI. SPSS Syntax module was used in the application. **Findings:** Three pairs of canonical variables were calculated between HDI and HPI variable sets, but only two of them were found to be statistically significant. The first canonical correlation value is 0.976 (Wilks L=0.017) and the second canonical correlation value is 0.799 (Wilks L=0.357). The first canonical variable of HDI is mainly composed of "life expectancy at birth index", secondly "GDP index" and thirdly "education index". The second canonical variable of HDI is mainly composed of "education index" (in negative direction), followed by "GDP index" (in negative direction). The first canonical variable of the HPI is predominantly composed of "life expectancy at birth" and secondly "welfare level", the effect of "ecological footprint" is not significant. The second canonical variable of the HPI is mainly composed of "ecological footprint" (in negative direction) and secondly "welfare level" (in negative direction). "Life expectancy at birth" was not significant in this canonical variable. **Results:** This study has shown that the relationship between HDI and HPI can be as high as 0.976 when considered holistically with Canonical Correlation Analysis. The Classic Pearson Correlation value between HDI and HPI is 0.16. This shows that if the linear relationship between only two variables is not to be measured directly, as in this study, and if the relationships between variables with sub-components are to be measured, Canonical Correlation Analysis is a more appropriate way than Classical Pearson Correlation Analysis.

**Keywords:** Canonical Correlation Analysis, Human Development Index, Happy Planet Index.

## THE EFFECT OF SCHOOL PRINCIPALS' TRANSFORMATIONAL LEADERSHIP BEHAVIOR ON PRIMARY MATHEMATICS TEACHERS' MOTIVATIONS

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### ABSTRACT

**Introduction and Purpose:** Today, with the rapid development of technology, there is a rapid change and transformation in areas such as culture, education, access to information and sharing. In order to keep up with the pace of change in education and to transform education, schools and naturally educational administrators and teachers have important responsibilities and obligations. The purpose of this study is to examine the effect of transformational leadership behaviors of school principals on the motivation of elementary mathematics teachers according to socio-demographic data.

**Materials and Methods:** In the research designed within the framework of relational survey model, Personal Information Form, Transformational Leadership Scale and Teacher Motivation Scale were used as data collection tools. The research sample consists of 250 teachers working in secondary schools in Palandöken, Yakutiye, Aziziye and Pasinler districts of Erzurum province. Whether the Transformational Leadership and Teacher Motivation scales differ according to demographic data was analyzed with significance tests.

**Result:** When the transformational leadership scale and its sub-dimensions were evaluated according to gender, a statistically significant difference was found in the sub-dimension of having high expectations of success ( $p=0.039$ ). Again, the data show that women have more advanced levels of having high achievement expectations than men. When the transformational leadership scale and its sub-dimensions were evaluated according to marital status, a statistically significant difference was found in the sub-dimension of having high achievement expectations ( $p=0.043$ ). According to the results, it was determined that single teachers had a higher level of having high achievement expectations than married teachers. When the teacher motivation scale and its sub-dimensions were evaluated according to school type, no statistically significant difference was found ( $p>0.05$ ). It was determined that teacher motivation did not differ according to school type.

**Discussion and Conclusion:** Teacher motivation is a critical factor for student achievement. Transformational leadership can increase teachers' intrinsic motivation, leading to higher performance. Teachers' professional development can be encouraged by transformational leaders, which can positively affect teachers' job satisfaction and motivation. Demographic variables have also been shown to have an impact on motivation (Keser., 2011). For example, demographic factors such as teachers' age, experience level, and education level can have a significant impact on teacher motivation.

**Key Words:** Mathematics, School Principal, Transformational Leadership, Teacher Motivation



## THE EXAMINATION OF THE RELATION BETWEEN VIRTUAL LONELINESS LEVELS OF 12. GRADE HIGH SCHOOL STUDENTS AND THEM BECOMING CYBER BULLIES/VICTIMS

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### SUMMARY

**Introduction and Purpose:** Dazzling developments in technology, like they changed all of our living habits, they radically affected our communication habits too. Developments in communication technologies enable us to build communication on many social media platforms. This new communication styles have significant effects on individuals. Many new concepts such as Virtual loneliness, Virtual bullying, Virtual victim have entered into our literature. In this study, the effect of virtual loneliness on being a Cyber Bully/Victim is investigated. **Methods and Applications:** The sample of the study consists of 123 students, 59 female and 64 male, selected among the students studying in the 12th grade of high school in Samsun in the 2023-2024 academic year. ‘Cyber Bully/Victim Scale’ developed by Ayas and Horzum (2010) and ‘Virtual Environment Loneliness Scale’ developed by Korkmaz, Usta, Kurt were used in the research. Scores obtained from the Loneliness in Virtual Environment Loneliness Scale, cyber bully and cyber victim scores were calculated separately. Datas analysed with SPSS. Comparisons based on gender examined with ‘Independent Samples t test’ and ‘Mann-Whitney U test’. It was determined that levels of becoming bully, becoming victim and virtual loneliness are not distributed normally. Correlation analysis between the datas that did not show normal distribution were examined with Spearman correlation analysis. **Indications:** A positive meaningful way relation had been found between ‘Virtual Environment Loneliness Scale’s sub-dimensions of Virtual Socialising & Virtual Posting and Being Victim & Being Bully. No relation was found between virtual loneliness level and being cyber bully/victim levels. A positive meaningful way relation exists between becoming cyber bully/victim. When considered according to gender, meaningful differences were found between scale’s sub-dimensions.. **Discussion and Conclusion:** In this study, it was observed that as the level of relationship established on virtual platforms increases, the risk of being a cyberbully/victim also increases. It is seen that people who share more in virtual communication channels are more at risk of being bullies/victims. It is important to investigate the effects of virtual communication, which is taking more and more place in our lives, in all aspects.

**KEY WORDS :** Cyber Bully, Cyber Victim, Virtual Loneliness

## GUERRILLA MARKETING STRATEGIES IN FOOD AND BEVERAGE BUSINESSES

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### ABSTRACT

**Introduction and Purpose:** Food and beverage businesses need to carry out their marketing activities dynamically in order to meet the changing consumption mentality and customer expectations, to stand out in the market and to be effective. It is possible for businesses to attract customers' attention in an unusual and unexpected way and offer a unique experience by implementing guerilla marketing strategies. The aim of this study is to examine the historical development of the guerrilla marketing method, its usage areas, types and its application in food and beverage businesses within the scope of scientific studies.

**Materials and Methods:** A systematic compilation review was conducted in the study. The aim here is to perform a review process that includes the objective and systematic scanning of original researches conducted on a specific topic, evaluation of the results according to determined criteria, and synthesis of the obtained information. Information was obtained through the method of scanning scientific studies on the subject within the literature scope.

**Results:** It has been observed that many international food and beverage businesses (such as Coca-Cola, Red Bull, Burger King, Snickers, Doritos, etc.) aiming to create a difference with minimum cost apply guerrilla marketing strategies to keep the competitive environment alive and to surprise their customers. It has also been determined that various studies aimed to measure the relationship between guerrilla marketing and brand awareness, as well as researches focusing on the role of social media in increasing fine dining brand awareness, have been conducted. **Discussion and Conclusion:** Businesses that use guerrilla marketing activities effectively become preferable in a shorter time and with minimum cost, without wasting time and money on other marketing activities. As a result of the study, it was pointed out that while guerrilla marketing activities can be understood positively in terms of the target audience, in some cases there may be a possibility of being understood negatively. It has been suggested that food and beverage businesses should pay attention to changing customer behavior and that more studies should be conducted in this regard.

**Key Words:** Customer Experience; Food and Beverage Business; Guerrilla Marketing; Restaurant

## NEUROMARKETING STRATEGIES: AN ASSESSMENT FOR THE FOOD AND BEVERAGE INDUSTRY

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### ABSTRACT

**Introduction and Purpose:** Understanding consumers' desires and expectations, building loyal customer bases, delivering effective experiences, and doing so through sensory elements are made possible through neuromarketing strategies. In the method where data is obtained by observing brain and body responses without asking any questions to the consumer, many different techniques are applied. The aim of the study is to examine the historical development, application areas, advantages, and disadvantages of neuromarketing concept through scientific studies; and to evaluate neuromarketing strategies from the perspective of the food and beverage sector.

**Materials and Methods:** A systematic compilation review was conducted in the study. The aim here is to carefully examine the information in the literature, scan it according to criteria, and synthesize existing evidence. Information was obtained through the method of scanning scientific studies on the subject within the literature scope.

**Results:** Global companies such as Carlsberg Beer, Coca-Cola, and McDonald's use neuroimaging technologies to determine consumer purchasing behavior and for market research purposes. A beer producer named Hop Haven operating in the USA uses eye-tracking technology to investigate consumers' visual preferences, while a food company named Munchy Marvels applies neuromarketing techniques by preparing a snack that appeals to individuals' taste and auditory senses. In another study, researchers evaluated the effect of restaurant lighting on consumers' attention and liking levels using eye-tracking, GSR, and EEG devices. **Discussion and Conclusion:** Neuromarketing studies conducted for the food and beverage sector can be applied in a wide range from product design to pricing by emphasizing the role of emotions in marketing strategies. However the multidisciplinary nature of neuromarketing, the costliness of techniques, and the difficulty of their applicability may limit the proliferation of research. In this context, with the provision of funds for experimental studies and the creation of conditions, research will go beyond literature studies.

**Key Words:** Food and Beverage Industry; Neuromarketing; Purchasing Decision; Restaurant

**IMPACT OF CLIMATE CHANGE AND SMART AGRICULTURE AND IMPACT ON YIELD PERFORMANCE OF DIFFERENT WHEAT VARIETIES IN SINDH PAKISTANI: A CASE STUDY OF SYED KHURSHEED AHMED SHAH MODEL FARM SALEH PAT SUKKUR-SINDH**

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**Abstract:** The main objective of this research to investigate Impact of Climate Change and smart agriculture and impact on Yield performance of different wheat varieties in Sindh Pakistani : A Case study of Syed Khursheed Ahmed Shah Model farm Saleh pat Sukkur-Sindh.Sukkur-Sindh. Data were collected from 100 farmers from 2020-2024 of wheat and cotton belt of Saleh pat Sukkur-Sindh. It was revealed that Now a time people, associated with Agriculture farming are suffering from worst crises in terms of input fertilizer price instability.This fluctuating prices of synthetic fertilizer are attributed to Natural Gas shortfalls , phosphorus depletions and uncontrolled rates of exchange currencies. Under given natural phenomenon, the Natural Gas and high grade phosphite reserves are being depleted globally. Logically, the shortage of commodities causes price hike. In such a critical situation, we should refer to modern scientific research and prescribed development modules of Regenerative Agriculture.These regenerative agriculture theories envisage the alternate options of Agriculture farming practices. These alternate farming practices are not only meant to enhance the productivity but it is mean to adapt and mitigate climate change too. Now, greenhouse gas emissions caused to torn the environment which is leading to environment degradation and climate change. Climate change outcomes are severe floods, temperature increase, sea intrusions, off season rainfalls, desertification and land degradation. These climate change outcomes changed the schedules of different crop sowing and harvest time which ultimately causing the lesser yields and increased the cost of production.These unscheduled cropping systems given the niche to severe pest attacks on the crops of Cotton, Rice, sugarcane, fruit and vegetables crops.

Keeping in view our above given economic and climate change concerns, it is high time to rethink about our agronomic practices and give up old and obsolete practices for sing crop cultivations.The present agronomic practices are not meeting the environment friendly parameters to store the Carbon.These practices are multiple deep ploughing, irrational use of fertilizers,flood irrigation, mono cropping pattern and excessive use of pesticides.

**Key words:** Climate Change, regenerative agriculture, future challenges, SalehPat

**SIZE-CONTROLLED SYNTHESIS OF LA AND CHITOSAN DOPED COBALT SELENIDE NANOSTRUCTURES FOR CATALYTIC AND ANTIBACTERIAL ACTIVITY WITH MOLECULAR DOCKING ANALYSIS**

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**Abstract**

The co-precipitation approach was utilized to create ternary heterostructure catalysts, specifically La/CS-CoSe NSs (lanthanum/chitosan cobalt selenide nanostructures), without the need for a surfactant. During the synthesis process, a predetermined quantity (3 wt%) of CS was added with 2 and 4 wt% of La in order to regulate the development, recombination rate, and stability of CoSe NSs. The doped samples were used to increase the surface area, porosity, and active sites for the catalytic degradation of rhodamine B dye and to boost their antibacterial potential against *Staphylococcus aureus* (*S. aureus*). In addition, the produced catalysts were analyzed to evaluate the impact of dopants on the morphological, structural, and optical properties of CoSe. The XRD spectra confirmed that CoSe has both a hexagonal and cubic structure. Additionally, the porosity of the undoped CoSe sample increased from 45% to 60% when dopants (La and Cs) were added. Out of the samples examined in this work, 4% of the La/CS-CoSe samples showed notable bactericidal activity and the most effective catalytic reduction of rhodamine B dye in a neutral setting. The bactericidal efficacy of CS-CoSe and La/CS-CoSe NSs against DHFRs. *aureus* and DNA gyrases. *aureus* was investigated using molecular docking analysis to understand the underlying mechanism. **(Published in International Journal of Biological Macromolecules).**

**Keywords:** Metal oxide, Chitosan, Starch, Co-precipitation, Catalysis, Molecular docking

## ABOUT THE NORM EQUALITIES OF ELEMENTARY OPERATORS

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### Abstract:

Let  $B(H)$  denote the  $C^*$ -algebra encompassing all continuous operators acting on a complex Hilbert space  $H$ . For  $A, B \in B(H)$ , the elementary operator  $M_{A,B}$  on  $B(H)$  is defined as  $M_{A,B}(X) = AXB$  for all  $X \in B(H)$ .

**Introduction and Purpose:** This paper aims to establish, under specific hypotheses, necessary and sufficient conditions concerning the operators  $A_k, B_k \in B(H)$  ( $1 \leq k \leq 3$ ). These conditions are crucial for the norm  $\| \sum_{k=1}^{k=3} M_{A_k, B_k} \|$  to achieve its optimal value  $\sum_{k=1}^{k=3} \|A_k\| \|B_k\|$ . **Materials and Methods:** We examine the  $C^*$ -algebra  $B(H)$  and define the elementary operator  $M_{A,B}(X) = AXB$  for  $A, B \in B(H)$ . Our investigation centers on deriving conditions for the operators  $A_k, B_k \in B(H)$  ( $1 \leq k \leq 3$ ) that lead to the norm of the operator  $\sum_{k=1}^{k=3} M_{A_k, B_k}$  its optimal value  $\sum_{k=1}^{k=3} \|A_k\| \|B_k\|$  within the framework of certain hypotheses. **Results:** Our analysis culminates in establishing necessary and sufficient conditions governing the operators  $A_k, B_k \in B(H)$  ( $1 \leq k \leq 3$ ). These conditions ensure that the norm of the operator  $\sum_{k=1}^{k=3} M_{A_k, B_k}$  equals its optimal value  $\sum_{k=1}^{k=3} \|A_k\| \|B_k\|$  in accordance with the specified hypotheses. **Discussion and Conclusion:** In conclusion, our study provides valuable insights into the conditions that determine the optimal norm of the operator  $\sum_{k=1}^{k=3} M_{A_k, B_k}$  within the context of the  $C^*$ -algebra  $B(H)$ . These findings contribute to a deeper understanding of the relationships between the operators  $A_k, B_k \in B(H)$  and shed light on the conditions necessary for achieving the optimal norm value.

**Key Words:** elementary operator; maximal numerical range; norm; numerical Range.

## **A REVIEW ARTICLE ON RECENT INNOVATION AND FUTURE OBSTACLES IN DRUG DELIVERY SYSTEM TO THE EYE**

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### **Abstract**

The presence of numerous anatomic and physiologic obstacles has long made ocular drug delivery a problem for ophthalmologists and researchers into drug delivery. Invincible ocular obstacles, both static and dynamic, not only prevent xenobiotics from entering the eye, but also prevent therapeutic substances from being actively absorbed. Improved medication bioavailability and controlled drug release at the location of action, which can address several ocular defences, should be included when creating the optimum delivery system. To treat disorders of the anterior and posterior segment, traditional ophthalmic drugs include anti-vascular endothelial growth factor intravitreal injections and topical eye drops agents. Puncture plugs, eye implants, contact lenses with drug-eluting material, and ocular iontophoresis are examples of modern innovations for controlled and prolonged medication release for the anterior ocular segment illnesses. Various intravitreal implants have been approved as a result of parallel attempts ocular drug delivery method for diseases of the back of the eye. Dendrimers, microneedles, nanomicelles, nanoparticles, nanomicelles, liposomes, and nanowafers are among the new drug delivery technologies being investigated for anterior and posterior abnormalities. To increase patient compliance for diseases of the back of the eye, new techniques for the noninvasive delivery of potent treatments are becoming more popular. In this review article topics are covered in the current developments and upcoming difficulties in ocular drug administration this review article.

**Keywords:** Anatomy of Eye; Drug delivery; Intravitreal; Diseases; Administration

**A REVIEW ON ENVIRONMENTAL SANITATION AND HYGIENE PRACTICES IN  
DEVELOPING COUNTRIES: CHALLENGES, IMPACT ON PUBLIC HEALTH  
AND INTERVENTIONS**

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**ABSTRACT**

Poor environmental sanitation and hygiene practices remain a significant public health challenge in many developing countries. This review article aims to synthesize the existing literature on the current state of environmental sanitation and hygiene in developing regions, the key challenges limiting progress, the impact on public health outcomes, and the effectiveness of interventions implemented to address these issues. The review begins by examining the current landscape of environmental sanitation and hygiene, including access to clean water, proper waste disposal, and personal hygiene behaviors. It then identifies the major barriers to improving these practices, such as infrastructure deficiencies, socioeconomic disparities, cultural norms, and governance failures. The article then assesses the impact of poor environmental sanitation and hygiene on public health, focusing on the prevalence of waterborne diseases, malnutrition, and child mortality. Finally, the review evaluates the effectiveness of interventions, such as water, sanitation, and hygiene (WASH) programs, behavior change campaigns, and infrastructure development initiatives. It examines the outcomes of these efforts in terms of improving access, changing behaviors, and reducing disease incidence.



**A SURVEY ON TICKS AND TICK-BORNE PARASITES IN CATTLE  
SLAUGHTERED AT JEGA ABATTOIR, KEBBI STATE, NIGERIA**

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**Abstract**

Tick and tick-borne parasitic disease of livestock significantly impacts negatively on the animal's wellbeing and productivity in Nigeria. This study aimed at determining the prevalence of ticks and tick-borne parasites in cattle slaughtered at Jega abattoir, Kebbi State, Nigeria. Ticks and blood collected from randomly selected cattle brought to be slaughtered were examined using standard entomological, parasitological and haematological procedures. Out of the 378 cattle examined 242 (64.02%) were infested with ticks. All 1,140 ticks collected were the ixodid tick. The 242 cattle that harboured tick all tested positive for tick borne parasites. The prevalence of tick-borne haemoparasites observed are Babesia sp. 99(4.91%), Anaplasma sp. 76 (31.40%), and Theileria sp. 67 (27.69%). The prevalence of tick and tick-borne haemoparasites in cattle slaughtered at Jega abattoir is significant ( $P < 0.05$ ). Older cattle 195 (80.58%) were observed to harbour more tick ectoparasites than the young ones 47 (19.42%). Both male and female cattle tend to have equal chance of being infested. Proper hygienic environment is a preventive measure to any kind of parasitic infection. Public enlightenment programs should therefore be organized for cattle rearers on the need to maintain good environmental condition.

**Keywords:** cattle, tick-borne diseases, tick, species.

## DETERMINATION OF HEALTH LITERACY STATUSES AND INFECTIOUS DISEASE RISK AWARENESS AND PROTECTION LEVELS

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### ABSTRACT

**Introduction and Purpose:** In this research, it is aimed to determine the e-health literacy status of individuals over the age of 18 living in the province of Erzurum, awareness of the risks that will cause infectious diseases and their knowledge level of protection from infectious diseases.

**Materials and Methods:** The population of the study consisted of individuals aged 18 and over who were registered in 8 Family Health Centers located in the city center of Erzurum. The sample consisted of 384 people registered to family health centers in Erzurum city center between 01.05.2022 and 01.09.2022, where the data were collected. Sociodemographic information form, e-health literacy scale and infectious diseases risk awareness and prevention scale were used to collect data. In order to conduct the research, institutional permissions were obtained with the approval of the ethics committee. It was done in SPSS 20.0 statistical program. Descriptive statistics, skewness and kurtosis values were used.

**Results:** In the study, participants' E-Health Literacy Scale total score average was found to be  $29.06 \pm 7.90$ , and the total mean score of the Infectious Disease Risk Awareness and Prevention Levels Scale was  $150.76 \pm 24.68$ . It was determined that there was a positive statistically significant linear relationship between the e-health literacy levels of the participants and the awareness of infectious disease risk and prevention levels. ( $p < 0,40$ ) It has been observed that as individuals' e-health literacy levels increase, their awareness of infectious disease risk and protection levels increase. Studies should be carried out to increase the e-health literacy levels of individuals, risk awareness of infectious diseases should be provided and individuals should be made conscious to protect themselves from infectious diseases.

**Key Words:** Communicable disease, e-health literacy, prevention, risk

**EVALUATION ON BASE LINE SURVEY OF NEWLY DEVELOPED PEARL MILLET VARIETIES SUPER-SOSAT UNDER NATURAL FIELD CONDITIONS IN NORTH EAST NIGERIA**

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**ABSTRACT:**

Pearl millet [*Pennisetum glaucum*] varieties – SOSAT (newly released by Lake Chad Research Institute Maiduguri in Nigeria) and SUPER-SOSAT (has being released in 2022) were evaluated under natural infestation in 80 farmers' fields in five states of North East Nigeria during 2023 for reactions to downy mildew [*Sclerospora graminicola* (Sacc.) J. Schrot.], parasitic weed *Striga hermonthica* and pearl millet stem borer [*Coniesta ignefusalis* Hampson]. The objectives of the survey were to assess the effects of these biotic constraints on the new varieties to prioritize areas for future improvement in order to enhance adoption process. Our study reveals that SUPER-SOSAT appears to be resistant to downy mildew not only in on-station experiments but also in farmers' field conditions. This variety could serve as potential source parent for transfer of downy mildew resistance genes to elite materials or as a resistant check in downy mildew screening experiments. However, SOSAT seems to be susceptible to *S. hermonthica* in the two test environments. Babura, Ajiwa and Kamba were endemic to *S. hermonthica* on pearl millet. These locations could be useful as hot spots for screening pearl millet lines for resistance studies under natural infestations. SUPER-SOSAT appears to tolerate these diseases while local cultivars are highly susceptible to downy mildew but tolerant to *Striga* and stem borer. Incidence of pearl millet stem borer was lower than expected; this could probably be due to adoption by farmers of early sowing practices and burning of millet stem before the commencement of rains in most locations. More information is needed on the reactions of SOSAT to downy mildew in order to fully ascertain the stability of the resistance over time and space. Also the performance of SOSAT under artificial infestation of *Striga* should be further investigated. Intercropping systems was the dominant practices and two and three crop mixtures were prevalent in all the states surveyed.

**keywords:** base line survey of newly developed pearl millet varieties super-sosat under natural field conditions and inter - cropping system.

## **TRICHODERMA USE AS SEED TREATMENT FOR PROMOTING THE GROWTH OF YOUNG ARGAN SEEDLINGS**

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### **Abstract**

Trichoderma spp. are endophytic plant symbionts that provide several benefits. Seed treatment with fungi of the genus Trichoderma spp. Recent works highlighted its abilities to alleviate abiotic stresses and promote plant growth. However, scarce data regarding its applicability upon endemic plant species have been published. The performance of argan seedlings receiving a bioformulation of Trichoderma sp. as seed treatment was monitored for 12 months under greenhouse conditions. A significant growth promotion of argan plants was obtained with a noticeable improve in length, dry matter of below-ground and above parts as well as number of branches in argan seedlings. The root and vegetative fresh weights were respectively of 12 and 14 g compared to the control plants 2 g and 3 g. The length of the root and vegetative parts reached 44 and 74 cm respectively compared to those of the control plants 35 and 25 cm. Different diameter of the crown were recorded and that of branches number formed in the plants from the treated seeds, compared to those noted in the controls, are respectively 1-0.5 and 4-1. Moreover, the survival of Trichoderma sp. in root tissues of argan seedling was associated with a colonization rate reaching 95%.

**Keywords.** Argan seeds, Trichoderma sp, greenhouse, growth.

## **ARTIFICIAL INTELLIGENCE: A COMPREHENSIVE ANALYSIS AND ECONOMIC IMPACT**

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### **Abstract**

Around the world, artificial intelligence (AI) is becoming a more powerful force that is changing economic environments. This study explores the complex relationship between artificial intelligence (AI) and economics, revealing the various ways in which AI affects market dynamics, productivity, decision-making, and policy formation. This paper presents a comprehensive view of how artificial intelligence (AI) is influencing economic theory and practice through a thorough examination of current advancements and academic discoveries. Additionally, it investigates the complex potential and problems that arise from incorporating AI into economic systems, offering practical advice to professionals, academics, and policymakers traversing this innovative field.

## **ENHANCING IOT SECURITY THROUGH AI-POWERED IMAGE PROCESSING**

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### **Abstract**

This article researches the potential of Artificial Intelligence (AI) based image processing in achieving a privacy and security of Internet of Things (IoT). AI can identify unusual patterns or objects in visual data streams, signalling potential intrusions or equipment malfunctions. AI can detect unauthorized access attempts, track suspicious activities, and analyse patterns of movement to identify anomalies. AI can spot defects or anomalies in visual data from industrial equipment, enabling proactive maintenance and preventing downtime. This research serves as a compass, guiding researchers and developers towards optimal pairings of image processing approaches with specific IoT scenarios, unlocking the benefits of enhanced efficiency and robust security across the ever-expanding realm of the connected world.

The research also provides a wider perspective and insights on the how the AI image processing can boost the IoT security and the strategies used to do so. The appropriate image processing techniques and methods that serve better to enhance IoT applications in terms of security and privacy have been graphically abstracted to provide readers and IoT applications and systems engineers with a map.. to discover gaps and challenges in the current literature and propose future research directions. Our novel contribution is provide a comprehensive road map that unlocks the potential of the latest image processing methods for a security of IoT applications.

## A STUDY ON THE SECONDARY SCHOOL DICTIONARY IN TERMS OF POLYSEMY

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### ABSTRACT

Vocabulary teaching is a process that starts with intuiting the words of a language and learning the primary meanings of words, and continues with the discovery of the many meanings that words have. There are different resources available to students for vocabulary teaching. In vocabulary teaching, the vocabulary of the language is given to students through textbooks. Among the elements of vocabulary, polysemous words have an important position. Verbs are very rich words in terms of polysemy. The polysemy of verbs is reflected in dictionaries. Dictionaries are important sources that introduce the vocabulary of the language. The Middle School Dictionary, which is made available to students by the Turkish Language Association, is a dictionary that stands out with its richness of meaning. The aim of this study is to examine the polysemy reflection of 54 verbs selected for this study by comparing the Middle School Dictionary with the Current Turkish Dictionary and to examine the reflection of polysemy in the 8th grade Turkish textbook by focusing on the polysemous uses of the selected verbs in the Middle School Dictionary. In this study, which is a qualitative research design, document analysis was used as a method. The study group consisted of the reading texts in the 8th grade Turkish textbook in the 2023-2024 academic year and the verbs selected in the Current Turkish Dictionary and the Middle School Dictionary. The results of the study show that the selected verbs reflect polysemous uses at various rates in the 8th grade Turkish textbook. In the context of 54 verbs selected in this study, the Middle School Dictionary reflects the Current Turkish Dictionary by 60% in terms of polysemy. Among the selected verbs, 8 new meanings that are not in the Current Turkish Dictionary but in the Middle School Dictionary were identified. In the context of 54 verbs selected in this study, the 8th grade Turkish textbook reflects the Middle School Dictionary by 19% in terms of polysemy.

**Key Words:** Middle School Dictionary; Polysemy; Polysemous Verbs; Current Turkish Dictionary; Middle School Turkish Textbook

## LEATHER JACKETS: SYMBOLS AND ASSOCIATIONS

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### ABSTRACT

**Introduction and Purpose:** The purpose of the present paper is to analyse the way in which leather jackets are perceived and worn. In what styles are they incorporated and what attitudes do the wearers want to present to the others? As leather jackets are very popular and are worn by almost everyone and in any style, showing their adaptability, we should consider the message that wearing such jackets can transmit. **Materials and Methods:** Society offers us the occasion to study semiotics, or the way in which various signs and symbols are attached to what we wear and the way clothes are used to communicate messages. This aspect is relevant since, nowadays, we live in a visual culture, the visual sense is recognized as the one through which we get the majority of our information and also the most impactful means of receiving and sending messages of communication. When we wear certain clothes, we do not wear them out of pure utilitarian means, but also to communicate something about ourselves, and to express ourselves. Our self-image and our public image are topics frequently discussed today, and the way we dress can transmit our attitude to the others and suggest various aspects about our personality. Psychologists explain the rebellious, confident, tough personality associated with leather jackets with the way in which leather had been worn since old times. It was very a strong and resilient, as well as tough material. **Results:** Leather jackets are now worn in creative ways, especially to emphasize a contrast in personality, once it is worn with lace by girls. **Discussion and Conclusion:** Leather jackets are staple items, allowing for adaptable combinations with other pieces and ensuring creativity in outfits.

**Key Words:** Semiotics; Personality; Personal Image; Creativity; Communication



**EFFECT OF THE DELAY CONSTANT ON EXISTENCE OF PERIODIC SOLUTIONS OF A THIRD ORDER MULTIPLE DELAY NONLINEAR DIFFERENTIAL EQUATION**

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**ABSTRACT**

**Introduction and Purpose:** In this study, the effect of delay constants on the existence of periodic solutions of a nonlinear third-order multiple-delay differential equation in the form

$$x''' + \Psi(x')x'' + \sum_{i=1}^n g_i(x'(t - \tau_i)) + \sum_{i=1}^n f_i(x(t - \tau_i)) = p(t, x, x(t - \tau_1), \dots, x'(t - \tau_n), x'')$$

has been examined.

**Materials and Methods:** Lyapunov's second (direct) method is used, which allows direct evaluations about the stability, limitation and existence of the solution without solving the differential equation and which has become an important part of both mathematics and theoretical mechanics.

In this study on Higher Order Differential Equations, mostly third order differential equations are discussed and the role of delay constants in the existence of periodic solution is emphasized.

Based on the sufficient conditions in the literature, the effect of delay constants on the existence of periodic solutions is compared with two sample applications.

**Results:** Except for the difference in multiple delay constants, different results are obtained regarding the existence of periodic solutions of two differential equations containing the same root of the differential equation within the scope of the relevant Theorem.

It is concluded that the delay parameter affects the existence of a periodic solution of a certain form of third-order multi-delay nonlinear differential equations.

**Key Words:** Existence and Uniqueness, Lyapunov's method, Periodic solutions, Third order

## THE RELATIONSHIP BETWEEN WORK STRESS AND TURNOVER INTENTION AMONG BLUE-COLLAR EMPLOYEES

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### ABSTRACT

#### **Introduction and Purpose:**

The aim of this study is to examine the turnover intentions of blue-collar workers during the probationary period in manufacturing enterprises and the factors influencing these intentions. The probationary period is a critical period in employees' job adaptation process, and determining turnover intentions and understanding the factors influencing them are important steps for developing human resource management strategies in enterprises. This study aims to fill the gap in the literature by providing a comprehensive analysis of the turnover intentions of blue-collar workers and the influencing factors during the probationary period. The results of the research can contribute to the development of human resource management policies in manufacturing enterprises and increasing employee commitment.

**Materials and Methods:** The survey data were obtained using a questionnaire as the data collection tool. The questionnaire form was sent to participants via email through a survey link created on an online platform. A total of 216 surveys were sent between April 2, 2024, and April 26, 2024, and data collection was completed with 179 positive responses received during this period.

**Results:** Research shows that there is a significant relationship between job stress and turnover intention.

**Discussion and Conclusion:** This study provides important theoretical and practical insights into the turnover intentions of blue-collar workers and the influencing factors during the probationary period. The results can offer a valuable roadmap for improving human resource management strategies in enterprises and increasing employee commitment. Additionally, by serving as a basis for future similar research, this study can contribute to the scientific literature in the relevant field.

**Keywords:** Blue-collar Workers, Turnover Intention, Work Ethics, Job Stress, Career Planning

## **DOES TRADE AND FINANCIAL OPENNESS AFFECT ECONOMIC GROWTH? EMPIRICAL EVIDENCE ON SELECTED OECD COUNTRIES**

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### **ABSTRACT**

After the 1990s, commercial and financial stagnation began to decrease in parallel with the end of the cold war. Under the influence of globalization, the international movement of production factors beyond national borders takes place without any obstacles, causes the world to turn into a huge market. In the new world environment created by globalization, each country implements liberalization policies to the extent required by its own structure.

Liberalization is basically evaluated under two headings: commercial and financial liberalization. The level of trade liberalization is related to trade openness, The level of financial liberalization is measured by financial openness.

Modern economics, which started with Adam Smith, has considered the issue of growth as a basic research area from the very beginning. Growth is considered a measurable concept in the competitive race between countries. In this competitive race, growth values are seen as an indicator of the development between countries. In the context of economic growth policies, the factors affecting economic growth and the direction of influence of these factors have been constantly discussed. Especially after 1980, liberal economic policies, based on liberalization policies, have become a priority for many countries. At this point, there are opposing views arguing that liberalization policies positively affect economic growth and that these policies increase the country's level of fragility and make it vulnerable to crises. When the literature is examined, to the formation of these opposing views; Country groups discussed in studies where the relationship between trade and financial openness and economic growth are examined empirically, It is noteworthy that there are differences in methods and data sets. In this context, the aim of the study is; The aim is to analyze how levels of trade and financial openness affect economic growth in selected OECD countries.

**Keywords:** Trade Openness, Financial Openness, Economic Growth, Globalization

## HOMEHIVE

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### **ABSTRACT:**

HomeHive emerges as an innovative and comprehensive online marketplace system for different household products, blending traditional e-commerce features with cutting-edge functionalities to deliver an unparalleled shopping experience. It stands out by seamlessly integrating unique features like shared carts and offering a range of functionalities akin to established e-commerce platforms while adding its distinct touch.

HomeHive's shared carts feature enhances collaboration among users, enabling them to create, edit, and manage their shopping lists collectively. This fosters a sense of community and convenience, making the shopping experience more engaging and efficient.

Moreover, HomeHive offers a range of functionalities comparable to leading e-commerce platforms, including personalized recommendations, streamlined checkout processes, and robust customer support. These features contribute to a smooth and enjoyable shopping journey for users, encouraging repeat visits and customer loyalty. In essence, HomeHive combines the best of traditional e-commerce with forward-thinking innovations, creating a dynamic and user-centric marketplace for household products.

**Keywords:** cryptocurrency, safety, smart cart

## **SIGNALS THAT THE ECONOMY WILL BECOME DIFFICULT AFTER THE BI RATE RISES, AND THIS IS UNDENIABLE**

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### **Abstract**

The government and economists share one voice with business actors and bankers that the Indonesian economy has the potential to experience pressure, amidst the high trend in central bank benchmark interest rates in various parts of the world, including Bank Indonesia (BI). The aim is to reduce pressure on the rupiah exchange rate and the potential for rising inflation, due to the tight interest rate policy of the United States (US) central bank and conflicts in the Middle East. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that when she first opened her presentation about the condition of the APBN per quarter I-2024, Sri Mulyani immediately stated that state revenue had fallen 4.1% to IDR 620.01 trillion. At that time, Sri Mulyani mentioned the word alert three times to describe how the government would react to the current global economic pressures. Data on the consumer confidence index or IKK before Eid 2024 is even lower than the pre-Eid period in 2018. At that time the Covid-19 pandemic had not yet spread in Indonesia and in 2024 the pandemic period will also end because President Joko Widodo revoked his status in June. 2023. Based on BI records, the Consumer Confidence Index (IKK) in March 2024 or the month before Eid this year was 123.8, and only increased 0.7 points from the previous month. Meanwhile, in the month before Eid in 2018, namely May, the index figure reached 125.1.

**Keywords:** Economic Signal, Bank Indonesia

**WITHIN THE DEVELOPING TECHNOLOGY IN THE FIELD OF HEALTH:  
ELDERLY PEOPLE**

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**ABSTRACT**

Aging is a physiological process in which irreversible structural and functional changes occur at the cell, tissue and organ levels from birth to death. Human beings are living creatures that change and develop since birth. Although the definition of old age, which is the last stage of human life, varies depending on the society and culture; It is a period that includes many physiological changes, vital and cognitive activities decrease, especially chronic diseases increase, and dependence on others is experienced, albeit at different levels, in individual care. The World Health Organization has determined the limit of old age as 65 years of age.

Technological developments in the field of health have enabled human life to be extended and the quality of life to increase. The increasing human lifespan shows that we are in a period where the elderly population is increasing in the world, especially in our country. This increase has brought to the agenda issues regarding the provision of health services and health expenditures. At this point, developing technology for the elderly, who are high-risk individuals with chronic diseases; It reduces the quality of health care, the frequency of hospital admissions and length of stay, and reduces health expenditures. The use of digital health technologies provides great convenience to the elderly and their caregivers in monitoring and treating both the normal aging process and the health problems that develop due to old age. Health technologies not only increase the quality of life of elderly individuals and their caregivers, but also have a positive effect on healthy aging and old age.

The aim of this review is to provide general information in line with the literature on technological developments in the field of health and the use of this technology for the elderly population experiencing cognitive and physical limitations.

**Key Words:** Older Individuals, Health Technology, Digital Technology

## THE PLACE OF CONTEXT IN NASAFI COMMENTARY

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### ABSTRACT

There are many elements for a correct understanding of the Quran. One of the most important elements among these elements is context. Context has a key role in understanding the intent of the utterance. Evaluating the before and after of the sentence whose meaning is desired to be determined together ensures that the sentence is understood correctly within the integrity of the subject. This is called in-text context. There is also an extra-textual context, which includes the time, place, conditions, geography, history, culture and addressees of the relevant word. It is not possible for an understanding effort that does not take into account these to yield results. Because there is always a context that creates the word, and without determining this, the purpose of the word that comes into being cannot be known. Many oral and written interpretation activities have been carried out from the time the Quran was revealed until today. In terms of the geography we live in, very useful commentaries were also written in the regions under the rule of the Ottoman Empire. Among these, Imam Nasafi's work named Madariku't-Tanzil and Hakaiku't-Tavil is of great importance in terms of prevalence and acceptance. In this study, the role of context in understanding the verses will be examined within the framework of Imam Nasafi's aforementioned commentary. First, brief information will be given about Imam Nasafi's scientific personality and works. Then, the conceptual framework, elements and importance of context will be discussed. Then, based on Nasafi's commentary, the effect and contribution of siyak to understanding the Quran will be revealed through some sample verses. Thus, it will be tried to show how much Nasafi includes context in the context of understanding the Quran.

**Key Words:** Tafsir; Context; Siyak; Imam Nasafi; Madariku't Tanzil and Hakaiku't Ta'vil.

## **CARROT (*Daucus carota*) POMACE INCORPORATED MUFFINS: DEVELOPMENT AND QUALITY EVALUATION**

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### **Abstract**

Muffins are widely consumed sweet, spongy breakfast or evening snack foods. Present work was undertaken to supplement muffin with carrot pomace powder to improve bioactive potential and dietary fiber content. Carrot pomace powder was added at different concentrations viz., 10, 20 and 30%, along with finger millet flour, and fox tail millet flour. Prepared muffins were tested for the physicochemical evaluation and the obtained results divulged significant ( $P < 0.05$ ) increase in the dietary fiber, vitamin A, antioxidant activity. Muffins were baked at 150°C for 25 min and upon testing for texture analysis, control samples showed a distributed protein matrix and distorted starch granules, while those with incorporated carrot pomace powder showed harder texture attributable to incomplete starch gelatinization. Different cooking quality parameters were assessed and with increment in pomace powder supplementation there was decrease in cooking time. Color characteristics were evaluated for the muffins which showed decreased L\*value due to increased pomace concentration which imparted darker color, while a\* and b\* values increased. FTIR analysis for the different muffin samples confirmed the presence of different functional groups. Moreover, prepared muffins were analyzed for sensory evaluation. Obtained results showed that up to 20% pomace powder concentration, the product was acceptable, however higher concentration negatively affected the textural attribute of the developed muffins. Henceforth, carrot pomace could turn out to be a very useful commodity for incorporation into muffin to have a complete nutritive food product.

**Keywords:** Carrot pomace; muffin; proximate; cooking quality; sensory.



## ARTIFICIAL INTELLIGENCE IN FORENSIC SCIENCE, OPPORTUNITIES AND CHALLENGES

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### ABSTRACT

Artificial intelligence in forensic informatics is the use of artificial intelligence techniques in forensic processes such as criminal investigation, case execution and judgement. In this field, artificial intelligence often plays an important role in various areas such as analysing large data sets, crime prediction, examining digital evidence, supporting judicial decisions and crime prevention. In particular, artificial intelligence techniques such as machine learning and data mining have the ability to detect crime patterns by analysing large amounts of data. This significantly assists judicial authorities in preventing crimes and identifying criminals. In addition, artificial intelligence techniques are used in the analysis of digital evidence, automating and accelerating data analysis in judicial processes. This ensures that investigation processes are carried out more efficiently and effectively. Some of the benefits of artificial intelligence in forensic informatics are that it increases efficiency, ensures accuracy, automates, provides convenience in obtaining in-depth analysis results, reacts quickly in emergencies, and predicts possible crimes. However, there are some concerns about the use of artificial intelligence techniques. Issues such as algorithmic biases, data reliability and compliance with legal norms are factors that limit the use of artificial intelligence techniques in forensic processes. While the use of artificial intelligence in forensic informatics offers significant benefits, it also brings some problems and challenges. Addressing these issues is very important to ensure the reliable and effective use of artificial intelligence in the justice system. Artificial intelligence techniques make significant contributions to the more effective and fair execution of judicial processes in forensic informatics.

**Keywords:** artificial intelligence, digital forensic, digital evidence

## **CONSENSUS STUDY WITH DIFFERENT TOPOLOGIES AND TIME DELAY IN MULTI-AGENT SYSTEMS**

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### **ABSTRACT**

This work investigates achieving consensus in undirected networked multi-agent systems. It analyzes how factors like network size, topology variations, and constant communication delays influence the agent's convergence. Our key contribution lies in uncovering the link between a network's algebraic connectivity and the speed of convergence. Moreover, simulations demonstrate an inverse proportionality between the largest eigenvalue of the Laplacian matrix and the network's maximum tolerable time-delay. These results provide crucial insights for understanding and enhancing the robustness of consensus protocols in networked systems. Finally, the paper offers practical recommendations for real-world implementations.

**Key Words:** Multi-agent systems (MAS), Consensus, Topology, Time-delay.

**COMPARATIVE ANALYSIS OF THE GUBERNATORIAL ELECTION IN EKITI  
STATE.NIGERIA.  
(A CASE STUDY OF YEAR 2018 AND 2022)**

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**ABSTRACT**

**Introduction and Purpose:** Since the return of this present democratic government in 29th May, 1999, Ekiti-State has witnessed six different gubernatorial elections; the first in 1998, the second in 2003, the third in 2007, the fourth in 2014, the fifth in 2018 and the sixth is 2022. These elections have been characterized by peace and violence. The first election held in 1998 was peaceful basically because it was conducted by the Independence National Electoral Commission (INEC) and supervised by the then outgoing military Head-of-State Gen Abdulsalam Abu-Bakar (Rtd.).

**Materials and Methods: Results:** Descriptive statistics, test of independence and an analysis of variance (Anova) was used in carrying out the data analysis.

**Discussion and Conclusion:** Based on the results the research work concludes that there is no improvement in the gubernatorial election conducted in Ekiti state over the years.

**Key Words: Keywords:** Gubernatorial, Elections, Parties, Analysis of Variance (Anova), Independent National Electoral Commission (INEC), State.

## EVALUATION OF ABUSE, LONELINESS AND DEPRESSION IN OLDER ADULTS

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### ABSTRACT

**Introduction and Purpose:** The rate of older population is increasing worldwide and the problems encountered in old age are increasing accordingly. Especially, abuse, loneliness and depression are global problems that need to be addressed. Identifying these problems in old age and helping older adults cope with these situations will increase their life satisfaction. This study aimed to evaluate abuse, loneliness, and depression in older adults.

**Materials and Methods:** This cross-sectional and correlation study was carried out in nine family health centers located in a city center in Turkey between January and April 2024. The sample consisted of 217 older adults aged 60 years and over. Data were collected with Participant Information Form, Hwalek–Sengstock Elder Abuse Screening Test, Loneliness Scale for Elderly, and Geriatric Depression Scale-15. Percentage, frequency, mean, standard deviation, t-test, analysis of variance, Tukey test, Pearson correlation coefficient and multiple regression analysis were used to analyze the data. The significance level in the tests was evaluated as  $p < 0.05$ .

**Results:** It was determined that 55.72% of the elderly were male, 38.38% were between the ages of 60-65, 44.28% of the elderly experienced loneliness, 22.14% experienced abuse and 31% were depressed. It was determined that the average score of the participants on the Hwalek-Sengstock Elder Abuse Screening Test was  $2.18 \pm 1.22$ , the average score on the Loneliness Scale for the Elderly was  $12.84 \pm 3.17$ , and the average score on the Geriatric Depression Scale was  $8.03 \pm 3.24$ . There was a middle and positive correlation between the loneliness and abuse experienced by the elderly ( $p < 0.001$ ;  $r: 0.497$ ), there was a middle and positive correlation between the abuse and depression ( $p < 0.001$ ;  $r: 0.472$ ), and high and positive significant correlation were found between loneliness and depression in the elderly ( $p < 0.001$ ;  $r: 0.642$ ).

**Discussion and Conclusion:** This study shows that determined that abuse, loneliness and depression are important problems in the older adults and there are significant relationships between them. In order to prevent these problems in the older adults, it is recommended to raise the awareness of the elderly and their families on these issues through elderly health protective and promotion programs.

**Key Words:** Older Abuse; Loneliness; Depression; Older Adult.

## A COMPARATIVE ANALYSIS OF HU'S ECO-TRANSLATOLOGY AND BOURDIEU'S SOCIOLOGY: IMPLICATIONS FOR TRANSLATORS

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### **ABSTRACT**

**Introduction and Purpose:** Studying eco-translatology and Bourdieu's sociology within the realm of translation studies offers a profound understanding of the intricate dynamics shaping translation processes and their broader socio-environmental impacts. Eco-translatology, rooted in ecological principles, delves into the interconnectedness between translation practices and the environment, emphasizing sustainability, ethics, and the ecological footprint of translation activities. On the other hand, Bourdieu's sociology illuminates the power structures and symbolic capital within the translation field, elucidating how social, cultural, and economic factors influence translators' behaviors, choices, and status.

**Materials and Methods:** Through a comparative lens, this study explores the key concepts of eco-translatology and Bourdieu's sociology, highlighting similarities and differences in their approach to understanding translators and translation practice. While eco-translatology focuses on the adaptive strategies employed by translators within their ecological niche, Bourdieu's theories shed light on the broader socio-economic forces shaping translators' positions within the field.

**Results:** By integrating insights from both eco-translatology and Bourdieu's sociology, translators can develop a deeper understanding of their role in society and navigate the complex dynamics of the translation profession more effectively. **Discussion and Conclusion:** his comparative analysis contributes to the advancement of translation studies by bridging the gap between eco-translatology and sociological perspectives, offering valuable insights into the multifaceted nature of translators' experiences and the socio-cultural contexts in which they operate.

**Key Words:** Eco-translatology; Translation Sociology; Translator; Interpreter

**COMPARISON OF LOW-RISE RESIDENTIAL BUILDINGS IN THE CZECHIA  
EXAMPLE IN CENTRAL EUROPE AND TURKEY IN TERMS OF LEGISLATION,  
DESIGN, MANUFACTURING AND COST**

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**ABSTRACT**

This study aims to analyze the architectural, structural and installation characteristics of the structures known as “Family House” which are common in Europe and to compare similar structures in Turkey with European standards. In particular, these buildings are analyzed, which are usually 2-storey, with 3 rooms and a kitchen corner and a living room, an indoor garage and a technical room. In addition, a cost analysis of these buildings has also been carried out.

In the study, similar building projects in Turkey and Europe are compared. For example, projects with similar architectural qualities in Prague, the capital of the Czech Republic, and Istanbul, Turkey, were analyzed and their design processes were compared. This comparison includes design criteria, standards, material and labor resources, construction methods, sales, delivery and occupancy processes.

According to the results of the study, the 2000s have been a period of increased international competition and the international contracting sector has focused on the European market. However, it is stated that the business habits in Asia and the Middle East are not sufficient for success in Europe. For this reason, companies from Turkey heading to Europe need to review their technical and administrative structures.

The study reveals that real estate investments between Turkey and Europe require different priorities and techniques. In addition to geographical, climatic and social factors, clear and enforceable regulations are also important for success. In particular, it is emphasized that the most important requirement for engineering in Europe is the ability to read.

In conclusion, this study provides important tips for Turkish engineering and contracting firms to be successful in Europe. However, different cultural, economic and technical factors need to be taken into consideration in order to be successful.

**Keywords:** Prague housing sector, Real estate investment in Europe, Eurocode and Turkish Standards, Feasibility and project development

## **PRODUCT INNOVATION AND QUALITY: BUILDING BLOCKS OF BRAND LOYALTY**

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Product Innovation and Quality: Building Blocks of Brand Loyalty

### **Abstract**

This study investigates how product innovation and quality influence brand awareness, brand image, and brand loyalty among smartphone users in northern India. 252 questionnaires were distributed, with 220 valid responses analyzed using Structural Equation Modeling. Results indicate that both product innovation and quality positively impact brand image, brand awareness, and brand loyalty. Furthermore, brand awareness and brand image significantly contribute to brand loyalty. The study emphasizes the importance for smartphone brands in northern India to prioritize innovation and quality to foster customer loyalty, as innovative, high-quality products enhance brand image and increase customer loyalty.

## **KINNOW WASTE UTILIZATION: ESSENTIAL COMPOUNDS, EXTRACTION AND UTILIZATION**

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### **Abstract**

The peel and pomace portion of Kinnow mandarin (*Citrus reticulata*) rich in polyphenols, flavonoids like naringin, carotenoids, pectin, and essential oils, which makes up 30–40% of the fruit weight, is the main waste product of the kinnow juice industry. These bioactive substances are highly valuable in food processing, pharmaceutical, and biofuel manufacturing industries, and they are also nutritionally sound. The valuable components can be extracted with a variety of very effective methods and utilized for a variety of purposes. The Kinnow peel, otherwise a waste, is more valuable to the industry since it is readily available and inexpensive, and it serves multiple purposes. This organic waste holds a great potential to be converted into nutritious value-added products, using various extraction approaches. Extraction helps in isolation of bioactive phytochemicals from the by-products that could be used as nutritional supplements in food systems. This study was carried out to separation of bioactive compounds from kinnow peel. The crude extract obtained was analyzed for total phenolic content as well as antioxidant activity, using UV-Spectrophotometer analysis.

**Keywords:** Kinnow; By-products; Peel; Antioxidants; Bioactive compounds; UV-Spectrophotometer



## USE OF ARTIFICIAL INTELLIGENCE IN THE FILM INDUSTRY: MARKETING AND EDITING STAGES

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### ABSTRACT

**Introduction and Purpose:** Today, artificial intelligence technologies come to the fore with their use in cinema art as well as in communication and information systems. The aim of the study is to determine at what stages artificial intelligence technologies are used in the film industry and to reveal what they have changed and are likely to change in the field of cinema. In addition, the study focused on the question of what innovations the use of these technologies brought to the cinema industry. The aim of this study is to examine how both the marketing and editing stages have changed in the cinema industry after the emergence of artificial intelligence technologies.

**Materials and Methods:** Artificial intelligence algorithms are used in filmmaking to enhance special effects and character animations. Editing processes similarly benefit from artificial intelligence. Opportunities such as transitions, gap filling, automatic color and sound editing in the editing phase of cinema films bring about a rapid post-production phase. It is also possible to talk about artificial intelligence programs that can write scripts and create stories. It is used to create stories from scratch for a particular genre, as well as to add to or analyze scripts written by people. Movie recommendation systems, which are frequently used on digital platforms and are created by taking users' viewing history and tastes as criteria, are another dimension of the use of artificial intelligence algorithms in the industry. All these data were analyzed in line with the news about artificial intelligence and the statements of first-hand film production authorities. Exploratory data analysis was used to analyze the study.

**Results:** It is seen that the use of Artificial Intelligence algorithms in the cinema and film industry has greatly changed traditional methods. It has been concluded that the use of artificial intelligence technologies, especially in the editing phase of film production and in the distribution and marketing of films, will rewrite the rules of the industry.

**Keywords:** Artificial Intelligence, Film Industry, Film Editing, Editing, Film Marketing, Motion Pictures, Digitalization, Digital Platforms

## POLYSULFIDE-ENE POLYMERIZATION OF BISACRYLAMIDES AND BISMALEIMIDES TOWARD SULPHUR-RICH POLYMERS

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### BSTRACT

**Introduction and Purpose:** Elemental sulfur, mostly in the form of sulfur containing minerals, has a high natural abundance in the Earth's crust. In addition to its natural abundance, elemental sulfur is produced industrially in vast quantities which is primarily obtained as a side product from oil refineries and gas purification plants. Thus, elemental sulfur has been prospected as a sustainable resource for the fabrication of structurally diverse polymers. In this study an efficient methodology to obtain sulfur-rich polymers from elemental sulfur-derived polysulfide salts is reported.

**Materials and Methods:** The obtained copolymers were characterized by  $^1\text{H}$  NMR, FTIR, SEC and elemental analyses. While FTIR was used for structural analyses, DSC was used for thermal analyses. Rheological characterization of cross-linked polymers was carried out based on dynamic oscillation experiments of the samples. Inductively coupled plasma-optical emission spectrometry (ICP-OES) analyzes were performed for  $\text{Hg}^{2+}$  detection.

**Results:** According to SEC analyses, the polysulfide-ene polymerization process provided monomodal size distributions. Structural and compositional characterization of the copolymers was carried out by  $^1\text{H}$  NMR, ATR-FTIR spectroscopies and elemental analyses. Differential scanning calorimetry (DSC) analyzes of copolymers demonstrated adaptive glass transition temperatures ( $T_g$ ) by changing the monomer structure. Regarding P(1-5) obtained as semi-crystalline solids, the polyimide-based copolymers P4 and P5 are polyamide with polysulfide chains in their backbones. It exhibited higher glass transitions than P(1-3) based polymers. For both types of copolymers, the introduction of more flexible alkyl chains into the structure allowed slightly lower glass transitions, which can be attributed to increased segmental movements of the polymer chains. **Discussion and Conclusion:** The approach allows the synthesis of high sulfur content polymers in which structural diversification could be managed by employing different ene monomers. Associated step growth polymerizations could efficiently be implemented at ambient temperature conditions and without the need of any metal/ organo catalyst. Chemically crosslinked polymers with tailorable rheological properties were also fabricated by employing a multi-thiolate functional crosslinker. It was shown that these crosslinked materials can be utilized as adsorbents for toxic mercury removal from water.

**Keywords:** Sulfur-rich polymers; polysulfide-ene polymerization; polysulfides; cross-linked polymers; mercury removal.

## HEATH TREATED NI-TI ENDODONTIC INSTRUMENTS: STEP-BACK TECHNIQUE VS STEP-DOWN TECHNIQUE

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### **MATERIALS AND METHODS:**

For the following study, 50 sequences of F-One rotary instruments of length 25 mm and taper 13.03, 20.04 and 25.06 and 50 sequences of ProFlexi rotary instruments of the same length with taper 20.04 and 25.06 were selected. The sequences were divided in 2 groups based on the used instrumentation technique: Step-Down (SD) and Step-Back (SB).

The Step-Down (SD) technique was performed by activating as the first instrument the 25.06 of both the ProFlexi and the F-one in the first third of each canal, followed then by the 13.03 (for the F-One) and the 20.04 (ProFlexi) up to the working length (WL). Then the higher taper instruments were brought up to WL (25.06 ProFlexi; 20.04 and 25.06 F-one). The Step-Back (SB) technique was performed by instrumenting the entire WL first with the 13.03, then with the 20.04 and finally with the 25.06 for the F-one instruments; while for the ProFlexi instruments, the 20.04 instrument was used up to the WL and then the canal was instrumented with the 25.06, up to the WL. After the instrumentation of simulated inferior resin molars the sequences of each group were divided in 2 subgroups (A=Cyclic Fatigue and B=Torsional Resistance) according to the static test. Cyclic fatigue was measured calculating number of cycles to fracture (nCF) whilst torsional resistance was calculated measuring TTF (Ncm).

Cyclic fatigue and torsional strength tests were also performed on the control group.

Statistical analysis was performed to assess whether there were statistically significant differences between the different instruments in the same sequence, compared with the two instrumentation techniques used and the control group.

### **RESULTS:**

The F-One 13.03 file used in the Step-Down technique showed statistically significant higher values in both cyclic fatigue and torsional resistance from the Step Back technique.

For the F-One 20.04 and the 25.06 files, no statistically significant differences were found between the two techniques.

The ProFlexi 20.04 used in the Step-Down technique showed statistically significant higher values in cyclic fatigue resistance from the Step Back technique. Whereas there were no statistically significant differences in torsional resistance.

For the ProFlexi 25.06 instruments, no statistically significant differences were found between the two techniques in terms of both cyclic fatigue and torsional strength.

### **CONCLUSIONS:**

The Step-Down technique seems to be safer than the Step-Back technique since it preserves the lower taper instrument by reducing the torsional stresses generated and consequently the realization of a glide path limits the level of torque protecting the other instruments from fracture.

## THE LEVEL OF KNOWLEDGE OF WOMEN AND GIRLS ABOUT BREAST CANCER IN THE DISTRICT OF BERAT

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### **ABSTRACT**

**Introduction:** Breast cancer is one of the main malignant pathologies in women in the world, which today accounts for 1 in 8 cancer diagnoses and a total of 2.3 million new cases in both sexes together, representing a quarter of all cases of cancer in women

**Objective:** Identifying the knowledge of women and girls in the district of Berat, in Albania, on breast cancer

**Methodology:** The study is descriptive, cross-sectional, conducted in the time frame January-March 2024. The questionnaire was self-structured based on similar studies in the world. The questionnaire includes social demographic questions, questions about the level of knowledge about breast cancer, the source of the information received and the examinations they performed. The number of completed questionnaires is 255 individuals (women).

**Results:** The women and girls included in the study reported that 17% of them had a problem with the breast and currently, at the time of the study, only 7% of them had a problem. 15.2% of the women and girls included in the study had a family history of breast cancer. 59.3% reported that they had not done any check-up with a specialist doctor to identify breast problems. 53% refer that during their visits to Health Centers they did not receive information about breast problems. About 43.2% received their information through social networks

**Conclusions:** Information on symptoms, risk factors and screening methods is truncated, so there is a need to conduct informative seminars by trained health personnel, especially in rural areas.

**Key words:** breast cancer, information, knowledge, health personnel

**EXAMINING THE THEME OF ICOMOS 2024 " DISASTERS & CONFLICTS  
THROUGH THE LENS OF THE VENICE CHARTER" WITH EXAMPLES FROM  
TÜRKİYE AND THE WORLD**

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**ABSTRACT**

**Introduction and Purpose:** In creating awareness about the significance of historical structures and in the conservation of cultural and natural values, the existence of national and international documents such as laws, regulations, charters, etc., holds great importance. Through these documents, arbitrary restoration practices have been prevented, and conservation and restoration have been carried out in accordance with internationally accepted rules outlined in these documents, from the past to the present. International institutions such as UNESCO, the Council of Europe, Europa Nostra, ICCROM, among others, have been resources for this set of rules. ICOMOS is one of these institutions. ICOMOS (International Council on Monuments and Sites), aiming to draw attention to cultural heritage worldwide and contribute to their preservation, chooses a new theme every year on April 18th, International Day for Monuments and Sites, and organizes related events. The theme for the year 2024 has been determined as 'Disasters and Conflicts Through the Lens of the Venice Charter.

**Materials and Methods:** In this study, firstly theoretical definitions will be provided, and the contribution of the Venice Charter to the concept of conservation will be explained. Subsequently, natural disasters such as earthquakes, fires, and wars, which pose obstacles to the conservation of cultural heritage both globally and in Turkey, will be addressed along with current and past examples. The impacts of the February 6, 2023 earthquake on historical structures will also be discussed.

**Results:** This study, which is highly relevant and significant for both Turkey and the world, focuses on the sustainability of historical values that carry historical significance and need to be passed down as heritage to future generations in historical settlements. It is believed that this study will shed light on research from various disciplines as well.

**Key Words:** Cultural Assets; Historical Buildings; Conservation; Restoration; ICOMOS; Earthquake; Disaster.

## **ETHICAL CLIMATE AND ETHICAL DECISION-MAKING: THE MEDIATING ROLE OF MORAL INTENSITY**

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### **Abstract**

This study examines the mediating role of moral intensity in the relationships of social responsibility and laws/professional codes with the components of ethical decision-making. Empirical data from 309 employees were used to estimate the model with partial least squares structural equation modeling complemented by a necessary condition analysis and importance-performance map analysis. The study found that moral intensity mediates the influences of social responsibility and laws/professional codes on moral recognition and moral judgment. However, moral recognition and moral judgment, rather than social responsibility and laws/professional codes, contribute to predicting moral intent. Results also revealed that, except laws/professional codes, all constructs were identified as moderate to high importance and necessary conditions for moral intent. The study emphasizes the need to consider the influence of social responsibility and moral intensity in developing strategies to strengthen the ethical decision-making process.

**Keywords:** social responsibility, laws/professional codes, moral intensity, ethical decision-making, PLS-SEM

## SECONDARY SCHOOL STUDENTS' VIEWS ON INFINITY: HILBERT'S INFINITE HOTEL PARADOX

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### ABSTRACT

In this study, it was aimed to examine the views of secondary school students on the concept of infinity through Hilbert's Infinite Hotel Paradox. Case study, one of the qualitative research methods, was used. The study group of the research consists of 4 students, 2 girls and 2 boys, who volunteered at the course center located in the provincial center of the Marmara Region. Semi-structured interview questions consisting of 6 questions were used as data collection tools and content analysis method was used to analyze the data obtained. Categories and codes were created from the analysis of the data in the interviews and presented in tables. When other studies targeting pre-service teachers, middle school and secondary school students were examined, it was concluded that the concept of infinity is not sufficiently understood and leads to misconceptions. While most of the students defined the concept of infinity as "something that has no end and continues", some students stated that the concept of infinity scared them. After discussing Hilbert's Infinite Hotel Paradox, some of the students expressed that they gained a different perspective, while some of them did not change their view of infinity. Since the concept of infinity has an important place in the curriculum, students need to understand this concept correctly. Therefore, the concept of infinity should be included in mathematics lessons and teachers should encourage students to think about it. In the lessons, a context for talking about the concept of infinity can be created by planning activities such as "Hilbert's Infinite Hotel Paradox" that will create an environment for thinking and discussion. In this way, students' perceptions can be improved and their difficulties in understanding the gains related to the concept of infinity can be reduced.

**Keywords:** infinity, paradox, Hilbert's Infinity Hotel, opinion

## EXAMPLES OF ARTIFICIAL INTELLIGENCE-SUPPORTED LEARNING ANALYTICS IN EDUCATION: OPPORTUNITIES, PROSPECTS, CHALLENGES AND OBSTACLES

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### ABSTRACT

**Introduction and Purpose:** Learning analytics, which have started to be used frequently recently (Ouyang and Jiao, 2021) and aim to improve the learning process, provide solid data on which decision-making processes related to education or training can be built. Using the results obtained from the analysis, learners who are likely to leave the system can be identified, the learner's learning level, efficiency and success in the next stages can be predicted for learners and educators (Pardo et al. 2019), and better feedback is provided to the learner about the learning process (Kloos, et al., 2013). ) and learning environments can be organized in line with the information obtained. Artificial intelligence-supported learning analytics help identify students who tend to fail, create student-centered learning paths to increase learning effectiveness, and improve instructional design and development (Ouyang, et al. 2023).

The aim of this study, which is a literature review study, is to determine the areas where artificial intelligence-supported learning analysis, which is frequently used in business and educational environments and offers many benefits, is used, the opportunities it offers, what is expected from PA, and the difficulties and obstacles it brings.

**Materials and Methods:** This study was conducted using the document scanning method, which is one of the qualitative research methods.

**Results:** Artificial intelligence-supported learning analytics is used in many areas such as personalized learning and content recommendation, adaptive learning systems, student success and retention, feedback and evaluation, learning analytics dashboards, language learning and assessment, and social media and collaborative learning and contributes to improving learning. . With these analytics, learning can be personalized, students at risk can be identified and intervened early, continuous improvement and efficient resource management are provided as data-based decisions can be made, and it facilitates administrative tasks, giving educators time to focus on more personalized teaching and student interaction.

There are some difficulties and obstacles encountered in the use and dissemination of learning analytics. Some of those; Problems in data quality and accessibility, bias in algorithms, problems and ethical violations in ensuring the confidentiality and security of student data, change in the role of the teacher and decrease in human interaction, over-reliance on technology, homogenization of personalization, difficulties in the interpretation of data, resistance in the adoption and integration of this method. , lack of technical expertise and inadequate infrastructure problems. These difficulties may prevent the use of such methods in creating public policies and making decisions.



As a result, AI-supported teaching analytics, which have the potential to make education systems more effective, more efficient and more equitable for all students, are expected to play a very important role in education in the near future. To maximize the benefits and minimize the risks of these systems, it is important to address challenges such as data privacy and security, data interpretation, ethical concerns, infrastructure, cost and resistance of teachers to accept this technology, lack of technical experts, etc.

**Key Words:** Learning analytics, artificial intelligence, learning analytics examples, opportunities and challenges

## DISCOVERING NEW ANTIBACTERIAL LEADS THROUGH MOLECULAR COMPUTER-AIDED DESIGN TECHNIQUES FOR NOVEL OXADIAZOLE DERIVATIVES

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### Abstract

Combining Density Functional Theory (DFT) with Quantitative Structure-Activity Relationship (2D/3D-QSAR) modeling presents a promising avenue for investigating antibacterial activity and identifying potential drugs effective against both gram-positive and gram-negative microorganisms. In this research, we utilized this integrated approach to examine a newly synthesized class of 1,3,4-oxadiazole derivatives known for their strong performance as antibacterial agents. To ensure precise characterization and comprehensive description of the targeted biological activity, we systematically assessed various DFT functionals to accurately forecast the geometrical and electronic properties of the compounds, crucial for developing and validating the proposed 2D/3D-QSAR models. Our findings indicate that incorporating a donor group enhances the antibacterial activity of the derivatives. Analysis of molecular descriptors emphasizes the positive impact of this modification on the compounds' efficacy against bacteria. Moreover, our experimental compounds demonstrate favorable attributes regarding oral bioavailability, a critical aspect in drug development. Robust correlations between antibacterial activity and specific descriptors were established through an extensive analysis involving multiple linear regression (MLR), Random Forest (RF), and Artificial Neural Networks (ANN). Subsequently, we employed a partial least squares (PLS) model to construct 3D-QSAR models based on Comparative Molecular Field Analysis (CoMFA) and Comparative Similarity Indices Analysis (CoMSIA) descriptors. Validation of the output models was conducted using leave-one-out and bootstrapping methods, demonstrating a strong correlation between experimental and predicted activity values. Utilizing these models, the developed MLR model, expressed as  $pMIC = -12.704 + 0.260 \log P - 6.104 \cdot 10^{-3} SAG - 51.385 qN33$ , serves as a valuable tool for predicting antibacterial activity. Furthermore, we highlight that machine learning methods, such as Artificial Neural Networks (ANN) and Random Forest (RF), outperform traditional models in accurately predicting antibacterial activity.

**"ADVANCES IN NANOBIO-MEDICINE: INNOVATIVE CANCER TREATMENT HELPS ELIMINATE THE NEED FOR SURGERIES AND EASES THE PROCESS FOR PATIENTS."**

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**Abstract**

The dawn of Nano bioengineering brought a revolutionary database, and lasers pinpointed cancer treatments with minimal adverse effects. This report reviewed a set of noteworthy Nano biomedical approaches and evaluated their effectiveness in cancer treatment. We go over a variety of Nano based scaffolding pocket trapezoids, for instance nanoparticles, nanocarriers, and nanostructures, and emphasize the original framework in terms of performance. They deliver enhanced drug delivery, imaging, and therapy. In addition, we examine the integration of nanotechnology with other revolutionary methods like immunotherapy and gene editing, which have the potential to synergize the effectiveness of cancer treatment. Moreover, we explore potential limitations and future prospects, indicating the required interdisciplinary engagements to translate these promising enhancements into therapeutic practices. In summary, the current review has broad ideas about Nano biomedical therapy and the inspiration it will provide in the future for cancer treatment. Nano biomedicine has proven itself to be one of the most potential technologies for personalized treatment of cancer cells at the cellular level due to the fact that it can provide precise and targeted therapy. Through the merger of nanotechnology with advanced methods of tumor immunotherapy and gene editing, researchers could turn the beginnings into personalized and more effective cancer therapies.

**Keywords:**

Nano biomedicine, cancer treatment, drug delivery.

## **INVESTIGATION OF ACRYLAMIDE IN BREAD, PROCESSES OF ITS FORMATION, AND ITS REDUCTION WITH NEW METHODS**

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In Iran, bread and flour products are the most important source of food and provide most of the calories, protein, and minerals. The daily consumption of bread in Iran is reported to be 320 grams per person per day. So, knowing its chemical pollution is very important. One of the chemicals that is formed during the baking process is Acrylamide. When the temperature is higher than 120 °C it is formed during the Maillard reaction. Acrylamide (C<sub>3</sub>H<sub>5</sub>NO) is a white and solid substance at room temperature without odor and soluble in water. This substance is classified by the International Agency for Research on Cancer (IARC) as a possibly carcinogenic compound in group 2A. Contamination with this substance causes serious risks to the health of the consumer, including DNA mutations, damage to the nervous system, and causing different cancers. Searching of electronic resources from the years 2000 to 2023 was conducted in ISI, PubMed, SID, and Web of Science databases in Persian and English languages and a total of fifty articles were reviewed. In addition to bread, the presence of acrylamide in wafers, cakes, biscuits, chips, nuts, coffee, meat, chocolate, dry milk, tea, and drinking water has been proven. The high carcinogenic risks of this compound have led to the introduction of methods such as long cooking time and low temperature, decreased pH, and the use of thyme, rosemary, cumin, green tea, licorice, and bamboo (for their antioxidant properties) by food industry researchers.

**Keywords:** Bread, Acrylamide, Cancer risk

## **ELECTRO-OSMOTIC EFFECTS ON MICRO-ORGANISMS SWIMMING THROUGH FLUID MEDIUM**

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**Abstract.** The sperm swimming mechanism has been proposed as a possible resource for soft micro-robots in confined spaces, with potential applications in biomedical engineering. Human sperm cells essentially swim through the non-Newtonian liquid (cervical mucus) to reach their target. Thus, sperm cells swimming through non-Newtonian fluids is not vital only for physiology, but also for the fabrication of swimming micro-robots. Inspired by these remarkable applications, we examine the basic mechanics of spermatozoa motility using an undulating sheet model. This undulating sheet is bounded between two rigid walls which is self-propelling in the negative axial direction. The Carreau fluid is approximated as cervical mucus and electro-osmotic effects are also considered. The application of the lubrication approximation results in the reduction of momentum equations into a fourth-order ordinary differential equation. The present mathematical model is solved numerically via the finite difference method and MATLAB's built-in routine `bvp5c`. The unknowns that are present in the boundary conditions are refined by the root-finding algorithm. Power losses, cell speed, flow rate, velocity of the fluid, and streamline pattern are visualized by graphs. The findings of this study have important implications for the designing and optimization of electrically controlled microswimmers.

**Keywords:** Stokes equations, Electric force, Galilean transformation, non-Newtonian fluid, Newton-Raphson method.

## "EPILEPTIC HEART SYNDROME: CARDIAC COMPLICATIONS IN CHRONIC EPILEPSY"

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### **Abstract**

Epilepsy, impacting over 50 million individuals globally, poses a substantial risk of sudden unexpected death, with SUDEP. Notably, a history of epilepsy is associated with a 21% incidence of heart disease, significantly higher than the 12% observed in those without epilepsy. Heart disease is 2.4 times more prevalent among epilepsy patients aged 18-44 years, reaching 25.6% compared to 11.5% in those without epilepsy. Research into the "Epileptic Heart" syndrome reveals structural and autonomic changes in the heart linked to chronic epilepsy, leading to increased susceptibility to fatal arrhythmias. Studies using electrocardiography (ECG) and heart rate variability (HRV) assessments have identified significant abnormalities, including elevated QTc and QTd values, particularly among refractory epilepsy patients, suggesting heightened SUDEP risk in this subgroup. Autonomic dysfunction, characterized by sympathetic overactivity, has been implicated in cardiac fibrosis and arrhythmogenesis, contributing to cardiovascular complications in epilepsy.

The concept of an "ictal-Heart Syndrome" is supported by data showing that nearly 9% of epilepsy patients experience cardiovascular events (CVEs) within 30 days following ictal episodes, with rates varying across age groups. Those who suffer early CVEs face elevated long-term risks of hospitalization and mortality compared to individuals without epilepsy-related CVEs. Moreover, individuals with epilepsy have a 2–3 times higher risk of premature death, with SUDEP accounting for 2–18% of epilepsy-related deaths. The integration of routine cardiac evaluations, including resting 12-lead EKG and ambulatory EKG patch recording, into epilepsy management is crucial for detecting and managing cardiac issues associated with seizures. This multidisciplinary approach aims to optimize outcomes and reduce premature mortality by addressing cardiac comorbidities in epilepsy patients. These findings underscore the urgent need for comprehensive care strategies tailored to mitigate cardiovascular risks and improve long-term prognosis in this vulnerable population.

**Keywords:** Epilepsy, SUDEP, Cardiovascular disease, Ictal-Heart Syndrome, Autonomic dysfunction, Sudden cardiac death, Electrocardiography (ECG), Heart rate variability (HRV), Cardiac evaluation, Multidisciplinary care.

## DEVELOPMENT OF PIZZA BASE USING FLOUR OF MILLETS

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### **Abstract**

Minor millets are the small seeded with different varieties which includes proso millet (*Panicum miliaceum*), finger millet ( *Eleusine coracana*), pearl millet (*Pennisatum glaucum*), foxtail millet (*setaria italic*). Millet has many health benefits such as good protein (rich in essential amino acids), carbohydrates, fats, fibers, folic acid, and vitamins such as thiamine, niacin and riboflavin, and minerals such as iron, calcium and potassium. Ingredients include phosphorus, antioxidants and other phytochemicals. Being rich in antioxidants, millets are being used as nutraceuticals. They are reported to be helpful in treatment of migraine, asthma, blood pressure, diabetes, heart disease, atherosclerosis and heart attack. The low glycemic index, low glycemic load, and gluten-free composition of minor millets demonstrated their numerous health advantages. It improves some diseases because of its anticancer, antioxidant, anticholesteremic, and antihypertensive qualities, atherosclerosis, cancer, and gastrointestinal problems. Pizza is a widely consumed and significant food item that originated in the Italian region of Naples. Traditionally, wheat flour is used to make the flattened bread dough for pizza crusts. Due to its high calorie and low fibre content, pizza is not recommended for consumption by those with diabetes or cardiovascular disease. However, adding millet flour to the pizza base may improve its nutritional value and make it appropriate for those with these conditions.

**Keywords:** Millets, Phytochemicals, Nutraceuticals, Pizza Base

**THE PROBLEM OF COMPETITION FOR CLEAN AGRICULTURAL PRODUCTS  
AND SOLUTION FOR AN INTEGRATED VALUE-ADDED MODEL FOR  
CLEAN AGRICULTURE IN KHANH HOA, VIETNAM**

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**ABSTRACT**

Agriculture, Forestry and Fisheries sector accounts for almost 12% of the Vietnamese economic structure in 2023 (General Statistics Office of Vietnam, 2023). The agricultural sector of Khanh Hoa in particular and Vietnam in general is facing several challenges due to the pollution of the production environment as well as serious deterioration of farmers' health due to the heavy use of chemical pesticides, herbicides and other toxicity in the farming process (World Bank, 2023). The number of clean, sustainable agro production farms is still very low. Surprisingly, despite the fact that organic produces have superior safety and quality, there is a heartbreaking reality: the prices of these clean agricultural products in Vietnam in general and Khanh Hoa in particular are still very cheap, compared to those made by counterparts in Thailand, China, etc. This has led to decreasing income and unstable livelihood of clean production farmers (Khanh Hoa Farmers' Association, 2023).

Along with that worsening production situation, Vietnamese consumers' confidence has also seriously declined as agro produces are chemically grown everywhere, causing increasing health risks from alarming food safety issues (Vietnam's Ministry of Agriculture and Rural Development, 2023). This article analyzes the root causes of this whole scenario and proposes solutions by using a clean agriculture model that incorporates service agriculture thinking to create added value for Vietnamese agricultural products, and regain the trust from Vietnamese consumers, thereby promoting clean agro products nationwide and proceeding to exportation.

**Keywords:** clean agriculture, clean produce, service agriculture, sustainable development



**PROPOSING A MODEL OF EXPERIENTIAL EDUCATION  
THROUGH SOCIAL IMPACT PROJECTS IN VIETNAM**

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**ABSTRACT**

With the current educational context in Vietnam, there are few educational environments for students to practice and apply what they learn into real life. Therefore, a trend in recent years is that many university graduates are unemployed, while businesses are always having headaches finding quality labor. In addition, society's production and business activities are creating countless serious consequences for the environment, ecosystem and sustainable development of society. This article proposes an experiential education model through projects that create social impact at the local level to solve the above problems, contributing to creating a generation of graduates who actually do what they say, do it effectively and sustainably.

**Keywords:** experiential education, sustainable education, innovative teaching, learning by doing

## **UNVEILING CULTURAL INFLUENCES ON PEDAGOGICAL IDEOLOGY: A CASE STUDY OF EDUCATIONAL CHANGE IN AN ARAB SOCIETY IN ISRAEL**

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### **Abstract**

The purpose of the study was to examine the relationship between some cultural characteristics of the Arab society in Israel and teachers' pedagogical ideology, and both factors' influence on the implementation of an educational organizational change based on implementing pedagogical innovation. The research was conducted in an elementary school that led a pedagogical innovation project, leading the approach in which the student stands at the center, investigates and discovers on his own, while his positions are welcomed. In this approach, the student is independent and makes decisions about his or her learning process, and the teacher serves as a guide and mediator. The implementation was based on three new teaching methods for the school: playful pedagogy, extracurricular learning, and discovery learning. Participating in the study were: the principal of the school, the school team leading the change (8 teachers and subject coordinators) and the other schoolteachers (20 teachers). The study was conducted as a case study, using quantitative and qualitative research tools. The findings showed that cultural factors that characterize Arab society such as traditionalism and conservatism influenced the pedagogical ideology of the teachers and accordingly the implementation of change in practice. The teachers emphasized more traditional and conservative values and presented less values of openness to change. Other cultural factors characterizing Arab society that were found to influence the pedagogical ideology of the teachers are: hierarchy, family, and the status of women. It was found that these norms and values, which are based on cultural values, are contrary to the educational concept of the pedagogical enterprise, which affected the actual implementation of the change. Also, a correlation was found between the ideological component and the five components of Fox's model of organizational change in educational systems (Fox, 1995): human, pedagogical, organizational, space and material, and mechanisms, which were examined.

**Keywords:** cultural characteristics, pedagogical ideology, educational organizational change, Arab sector

## **LEVERAGING ARTIFICIAL INTELLIGENCE FOR UROLITHIASIS DIAGNOSIS AND DISEASE PREDICTION**

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### **Abstract**

Urolithiasis, characterized by the formation of kidney stones, is a prevalent condition with significant morbidity and healthcare costs. The advent of Artificial Intelligence (AI) has brought unprecedented opportunities to improve urolithiasis diagnosis and disease prediction. This review explores the emerging role of AI in urolithiasis management, focusing on its applications in medical imaging analysis, risk assessment, genetic analysis, symptom evaluation, and treatment optimization. AI algorithms, particularly those based on machine learning and deep learning techniques, demonstrate remarkable capabilities in accurately detecting and characterizing kidney stones from various imaging modalities, including CT scans, ultrasounds, and X-rays. Moreover, AI-driven predictive models leverage patient data to assess the risk of urolithiasis development, predict disease progression, and guide preventive interventions. Genetic analysis facilitated by AI identifies genetic predispositions to urolithiasis, informing personalized treatment approaches and risk stratification strategies. Furthermore, AI-enabled symptom analysis and treatment optimization tools enhance diagnostic accuracy, optimize treatment options, and improve patient outcomes. The integration of AI technologies into urolithiasis diagnosis and disease prediction holds great promise for advancing personalized medicine, reducing healthcare costs, and improving patient care. However, challenges such as data privacy, regulatory compliance, and algorithm transparency need to be addressed to realize the full potential of AI in urolithiasis management. Future research directions and clinical implementation strategies are discussed to harness the transformative power of AI in combating urolithiasis.

## **EXPLORING CULTURAL DYNAMICS IN TECHNOLOGY INTEGRATION: A STUDY OF ARAB AND JEWISH TEACHERS' PERSPECTIVES POST-COVID-19**

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### **Abstract**

This study aimed to investigate potential disparities between Arab and Jewish teachers concerning the integration of technology into teaching, following their experiences with remote online learning during the Corona pandemic. Specifically, it explores the influence of cognitive perceptions, sector differences, and their interaction on teachers' behavior, as well as schools' preparedness for technology integration. 403 teachers participated in this quantitative research, utilizing structured questionnaires. The findings reveal differences in cognitive perceptions favoring Arab teachers. Conversely, Jewish teachers demonstrated a higher level of mastery of digital tools. The study further establishes that cognitive perceptions are significantly associated with the technology-oriented behavior of both Arab and Jewish teachers. Sector differences and their interaction with cognitive perceptions are associated with variations in the behavior of Arab and Jewish teachers, favoring the latter in terms of controlling digital tools and embracing changes. Intriguingly, the study identifies a connection between school preparedness in the Arab sector and teachers' cognitive perceptions and behavior. These findings are discussed within the framework of attitude-behavior theories and literature addressing cultural distinctions in educational settings.

**Keywords:** technology integration, cognitive perceptions, teacher behavior, cultural differences, online learning, school preparedness

**IDENTIFICATION AND CHARACTERIZATION OF VIETNAMESE MEDICINAL PLANT (*Adenosma bracteosum* Bonati) BACTERIAL ENDOPHYTES DISPLAYING IN VITRO ANTAGONISTIC ACTIVITIES**

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**ABSTRACT**

Endophytic bacteria associated with medicinal plants possess unique strategies that enhance the growth and survival of host plants, many of which are mediated by distinctive secondary metabolites. These bacteria and their secondary metabolites are important subjects for both basic and applied research aimed at sustainable agriculture. In the present study, 58 endophytic isolates were isolated from the wild medicinal plant *Adenosma bracteosum* Bonati and were screened for their in vitro antibacterial activities against the common bacteria *Escherichia coli*, *Staphylococcus aureus*, *Aeromonas hydrophila*, *Vibrio parahaemolyticus* and *Dickeya dadantii*. A total of 12 isolates, selected based on broad antibacterial activity, were shown to produce siderophores, and contain at least one lytic enzyme (i.e., protease, cellulase, lipase, amylases, chitinase), which may be important mediators of antagonistic activity against pathogens. SB1R13.2 isolate had the best resistance to all 5 pathogenic bacterial strains and could produce siderophore and all 5 types of digestive enzymes above simultaneously. Based on 16S rDNA sequences, SB1R13.2 isolate had the closest genetic relationship with *Bacillus velezensis* LEF MYM 5. To our knowledge, this study is the first to report that endophytic bacteria isolated from *Adenosma bracteosum* Bonati have antibacterial activity. Our findings provide new insights into the antibacterial activities of natural endophytes, particularly *Bacillus velezensis* LEF MYM 5, and suggest this species may be a promising candidate as an antibacterial agent to confer resistance to other pathogens.

**Keywords:** Endophytic bacteria, *Bacillus velezensis*, *Adenosma bracteosum*, antibacterial, isolate.

## A NOVEL APPROACH IN FOOD ETHICS: NEW OMNIVORISM AND OMNIVORES

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### ABSTRACT

**Introduction and Purpose:** In recent years, many ethicists and philosophers who are experts in the field of contemporary food ethics have suggested that people's opposition to intensive animal farming cannot force them to follow a vegan diet, on the contrary, they argue that it will pave the way for an omnivorous diet consisting of animals and plants. They developed these claims under the name of "new omnivorism" as an important challenge and alternative to the very strict rules of veganism. In this context, the "new omnivorism" approach, which is one of the new discussion topics within the scope of food ethics, was examined and compared with other diet types.

**Materials and Methods:** In the present study, a structured literature review was conducted in Scopus, Web of Science, PubMed and Google Scholar databases using the systematic review method, using the keywords "food ethics," "new omnivorism/omnivores," "veganism," and "vegetarianism."

**Results:** "New omnivorism/omnivores" argues that industrial agriculture involves physical harm to animals and that it is necessary to act in a way that minimizes the harm to animals in food production. Proponents of this approach argue that mechanical harvesting, excessive use of pesticides and fertilizers, field trapping and land clearing in agriculture cause suffering and death to rodents, fish and birds, and therefore arable agriculture and therefore plant-based nutrition are unethical in terms of animal ethics and welfare. New omnivores suggest eating large mammals, waste (roadkill, animal products in bins), and invertebrates (bivalves, insects) as sources of animal-based protein.

**Discussion and Conclusion:** The "new omnivorism" essentially contends that animal-based diets are less harmful than plant-based diets, therefore the harm done to animals throughout the food production process can be reduced by following a certain mixed diet that includes both plant and animal protein. We hope that an ethical discussion will be useful in guiding societies towards more equitable food production systems and ethical consumption behaviors.

**Key Words:** Food ethics, New omnivorism, Vegan, Vegetarian.

**ECOTOURISM IN EAST MALAYSIA: CULTIVATING LOVE FOR NATURE AND TRAVELLING**

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**Abstract**

The purpose of this project was to introduce Sabah and Sarawak, two East Malaysian countries located in Borneo, as ideal places for ecotourism where visitors can relish in the beauty of its nature and study the history of several tourist attractions in these states.

**Keywords:** ecotourism, East Malaysian, Borneo

## **PREVALENCE OF ERM(C) RESISTANCE GENES EXPRESSION IN STAPHYLOCOCCUS AUREUS IN COMPARISON TO LACTOBACILLI**

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### **Abstract**

Antimicrobial resistance is an alarming health problem all over the world. Antibiotic-resistant bacterial strains are pathogenic and are becoming immune modulators. Studies revealed that antibiotic-resistant strains are concerned with the massive and irrational use of antibiotics. Studies also revealed that increased resistance bacterial strains have become "nightmare bacteria" to "pose a disastrous threat" all over the world. Lactobacilli are the key players in transferring the virulence factors and equally contributing to spreading the resistant genes to other bacterial populations through horizontal gene transfer (HGT). In this study, we identified the function of lactobacilli in shifting the erm(C) genes to Staphylococcus aureus. The population of the study consists of patients who made excessive use of antibiotics. Clinical samples were collected from human patients and cultured on mannitol salt agar medium, and a sensitivity assay was performed through the disc method. Samples were subjected to isolation of gDNA, and amplification of bacterial DNA through PCR followed by Gel electrophoresis and q-RT-PCR for gene expression analysis. erm(C) is the resistance gene against erythromycin and high expression of this gene ( $P \leq 0.03$ ) is found in Staphylococcus aureus in comparison to lactobacillus. It is indicated that erythromycin becomes resistant in Staphylococcus aureus and therapeutic response is reduced.

### **Keywords:**

Immune modulator, Nightmare bacteria, Horizontal gene transfer (HGT), Antibiotic-resistant.



## **LEARNING THE DIFFERENT DIALECTS OF KOREAN LANGUAGE THROUGH K-DRAMAS**

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### **Abstract**

The purpose of this project was to discuss the different dialects spoken in South Korean dramas. This can help speakers of other languages in other countries learn to familiarize themselves with the different dialects which may help them learn the language since there is a strong interest in Korean language since the rise of South Korean pop culture across the world.

**Keywords:** K-Drama, dialects, South Korean pop culture

## THE EFFECT OF CHITOSAN NANOPARTICLES ON BIOCATALYST PERFORMANCE IN CARRIER-FREE IMMOBILIZED ENZYME SYSTEMS

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### ABSTRACT

**Introduction and Purpose:** Several engineering approaches play an important role in the development of immobilised enzyme systems. Superior functional materials are being developed using nano-sized materials as chitosan nanoparticles (CNPs). Cross-linked enzyme aggregates (CLEAs), which belong to the group of carrier-free immobilised enzyme systems, are an advanced immobilisation method developed to overcome limitations in the use of free or immobilised enzymes in enzymatic production processes.

**Materials and Methods:** The effect of integrating CNPs with cross-linked *Candida rugosa* lipase enzyme aggregates on the catalytic performance of the immobilised enzyme system were investigated. Low molecular weight chitosan (~20kDa), soluble in dilute HCl (100 mM pH=3), was precipitated in NaOH (100 mM pH=11) medium by intense shear stress provided by a high-speed homogeniser, resulting in nanoparticles with an average hydrodynamic diameter of ~6 nm. During the immobilization process, the initial enzyme concentration was maintained at 150 mg/mL, the concentration of ammonium sulfate used as a precipitating agent was 600 mg/mL, and the concentration of the bifunctional cross-linking agent glutaraldehyde was kept constant at 40 µL/mL. The effect of CNPs on the hydrolytic activity of the developed biocatalyst was investigated in the concentration range of 2.5-15 mg/mL.

**Results:** In comparison to CLEAs without CNP, the addition of this compound has been demonstrated to reduce the hydrolytic activity of immobilised enzyme systems. For CLEAs with 2.5 mg/mL CNPs, the relative activity was found to be 84%. The performance of CLEA with CNPs was evaluated at varying temperatures (20-80 °C), stirring speeds (200-800 rpm), and solvent tolerances. At 30 °C, the relative activity was 99.9%, maintained up to 600 rpm. The solvent tolerance of the CLEAs with CNPs was ranked in order of decreasing activity as follows: isopropanol > hexane > chloroform > deionised water > i-octane > ethanol > phosphate buffer > DMSO > methanol > ethyl acetate > DMF > cyclohexane.

**Discussion and Conclusion:** The diverse performance of the developed biocatalyst system against operational conditions offers significant advantages for engineering applications.

**Key Words:** Cross-linked enzyme aggregates; Lipase; Nanochitosan particles

## **MIXED MICELLAR ENCAPSULATION OF NSAIDS FOR ENHANCED SOLUBILIZATION USING SUITABLE SURFACTANTS**

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### **Abstract**

Interaction of NSAIDs specifically naproxen has been investigated via spectroscopic analysis in single polymeric (pluronic F-127) and bio-surfactant (saponin) mixed surfactant media. The solubilization capabilities of surfactants solutions have been assessed in terms of the partition coefficient ( $K_x$ ) and binding constant ( $K_b$ ). Critical micelle concentration (CMC) of the surfactant and hydrophobic associations plays an important role in the said process. Significant enhancement in the solubility of naproxen was observed with the addition of polymeric surfactants (pluronic F-127) in the saponin solution. Solubility was found to be directly related to the extent of mixed micellization. The negative values of the Gibbs energy of binding ( $\Delta G_b$ ) and Gibbs energy of partition ( $\Delta G_p$ ) are the predictors to prove the feasibility and spontaneity of the process. The results, herein, suggest that the use of mixed micellar media for solubilization of naproxen is advantageous over that of a single surfactant. This research will be helpful in selecting the most suitable micellar media to be used as drug carriers for pharmaceutical formulation and drug delivery applications.

## THE ROLE OF CREATIVE THINKING TECHNIQUES IN SOLVING CONCEPT PROBLEMS FOR INTERIOR ARCHITECTURE STUDENTS

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### ABSTRACT

**Introduction and Purpose:** The aim of interior architecture education is to enable students to follow social, cultural and technological developments and to gain the ability to produce creative designs. At the beginning of Interior Architecture education, students are expected to develop these skills by taking a basic design course. However, while the education process continues, it is observed that some students lack design skill. Therefore, when students are requested to produce conceptual works, it is seen that they have problems in producing and reflecting the concept. This study was conducted in order to improve students' original design skills and concept foresight. Concept perception was created by utilizing creative thinking techniques.

**Materials and Methods:** In this study, which we conducted on 30 interior architecture students, it was aimed to improve the students' ability to find concepts by using brainstorming and six hat techniques, which are creative thinking techniques. 15 of the students designed the given store project individually as their first work. Then, a seminar on brainstorming and the six hat method was presented and the remaining 15 students and the 15 students who made the first drawing were put into groups of 2 students each to design the given project once again.

**Findings:** In the group that made the first study, only minor changes were observed in the layout of the space, while no change was observed in color, texture and form in their drawings. However, after the seminar, students who used creative thinking techniques as a group of 2 people both worked within a concept and a high rate of change was observed in color, texture and form.

**Discussion and Conclusion:** This study showed that more efficient projects can be prepared by interior architecture students learning creative thinking techniques while receiving design education.

**Key Words:** Concept, Creative thinking, Interior architecture, Brainstorming, Six hat method

**APPLICATION OF MICROBIAL SYSTEM IN WASTE MANAGEMENT AND USE  
OF MICROBIAL SYSTEM IN POLLUTION CONTROL**

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**Abstract**

Numerous environmental phenomena, both man-made and natural, depend heavily on microorganisms for survival. They do beneficial tasks that improve and ease man's quality of life. Waste management is one such area where microorganisms are being used to manage waste. Government and environmental organizations are constantly looking for improved solutions to solve the enormous task of properly disposing of the massive amount of waste that humans produce in the course of their everyday lives. Using microbes is a key strategy for effectively battling this threat. Thus, the several uses of microorganisms in urban waste management are examined in this research. It goes over the different ways that microorganisms function in the ecosystem, including how they clean up sewage and soil, produce energy, clean up oil spills, and deal with radioactive pollution. Additionally, it covers the creation and handling of waste as well as some particular applications for microorganisms (bacteria, fungus, algae, and viruses). It concludes by highlighting some recent advances in microbiological waste management.

**Keywords:** Waste management, Pollution, Control, Microbial

## HIGHLY EFFICIENT PHOTOCATALYTIC DEGRADATION OF ORANGE G DYE UNDER SOLAR LIGHT WITH A NOVEL TERNARY CATALYST

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### Abstract

Motivated by the need for efficient and sustainable methods to remove organic pollutants from water, this study presents the development of a novel ternary Z-scheme photocatalyst,  $M_x(PO_4)_y/CN/M_xO_y$ . The photocatalyst was synthesized via a facile coprecipitation method utilizing carbon and phosphate sources. Comprehensive characterization using X-ray diffraction (XRD), Fourier-transform infrared spectroscopy (FTIR), scanning electron microscopy (SEM), and UV-vis diffuse reflectance spectroscopy (UV-vis DRS) techniques elucidated the composite's structural, morphological, and optical properties.

The photocatalytic activity of the  $M_x(PO_4)_y/CN/M_xO_y$  composite was evaluated for the degradation of orange G (OG) dye under natural solar light irradiation. The composite exhibited remarkable efficiency, achieving a 93.73% decolorization of a 20mg/L OG solution within 60 minutes under neutral pH (pH 7). The influence of various parameters, including photocatalyst loading, initial OG concentration, and solution pH, on the degradation process was systematically investigated. Quenching experiments identified holes ( $h^+$ ) and superoxide radicals ( $\bullet O_2^-$ ) as the primary reactive species responsible for OG decolorization.

The superior photocatalytic performance is attributed to the efficient separation of photogenerated electron-hole pairs facilitated by the unique double Z-scheme heterojunction structure within the composite. This work demonstrates the promising potential of the  $M_x(PO_4)_y/CN/M_xO_y$  composite as a sustainable approach for the photocatalytic degradation of organic pollutants in wastewater under natural sunlight irradiation.

**Keywords:** Z-scheme, Solar light, Photocatalyst, Degradation, Orange G.

## DETERMINATION OF PARAOXONASE-1 AND SOME BLOOD PARAMETERS IN ECTHYMA SHEEP

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### ABSTRACT

**Introduction and Purpose:** Ecthyma, characterized by papules and crusting on the tip of the nose, lips and feet in lambs and kids, and on the udder in adults, is a viral disease with zoonotic properties. Ecthyma, which is seen in young animals and rarely in adults, is seen in all seasons, but is mostly seen during the dry pasture period. Our aim in the study is to determine the levels of some biochemical parameters in ecthyma sheep.

**Materials and Methods:** 25 sheep infected with ecthyma and 15 healthy sheep were used in the study. Blood samples were taken from the Vena jugularis of the animals into anticoagulant-free tubes and serums were obtained. Aspartate aminotransferase (AST), alkaline phosphatase (ALP) activities, iron (Fe), urea, creatinine and paraoxonase (PON)-1 levels were determined colorimetrically in the serum samples taken. Total iron binding capacity (TIBC) was obtained by summing serum Fe and unsaturated iron binding capacity (UIBC) levels. Serum transferrin saturation (TS) was obtained by calculating the formula from serum Fe and TIBC levels.

**Results:** As a result of the analyses, it was determined that Fe, TIBC and PON-1 levels decreased, while ALP, AST activities, urea and creatinine levels increased in ecthyma sheep.

**Discussion and Conclusion:** In conclusion, it causes changes in biochemical parameters in ecthyma sheep and more detailed studies need to be conducted on this subject.

**Key Words:** Biochemical Parameters; Ecthyma; Sheep; Paraoxonase

**POSITIVE AFFIRMATION VIA HANDDRAWN POSTERS TO HELP SPREAD  
MENTAL HEALTH AWARENESS**

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**Abstract**

The purpose of this project was to help students understand the importance of positive affirmation in boosting their and their peers' self-esteem which can prevent them from developing negative self-talk that harms their perception on themselves. Hence, this project intended to raise awareness on the role of positive affirmation in promoting overall wellness and mental health

**Keywords:** positive affirmations, negative self-talk, wellness



## RETROSPECTIVE INVESTIGATION OF CHILDREN PRESENTED WITH FEBRILE CONVULSION

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### ABSTRACT

**Introduction and Purpose:** In this study, we aimed to determine the characteristics of patients admitted with the diagnosis of febrile convulsion (FC) and to evaluate the most common diagnosis and the most frequent months of presentation.

**Materials and Methods:** A total of 172 children who were admitted to the pediatric emergency unit in the last one year due to FC and were admitted for observation were included in the study. The age range of the children included in the study was 5 months - 6 years (72 months). Patients were analyzed in terms of age, gender, diagnosis at presentation, type of FC, month of presentation, whether brain tomography was performed, sodium level, CRP level, white blood cell count, and glucose level. SPSS (Statistical Package for Social Sciences) for Windows 22.0 program was used for statistical analysis.

**Results:** The mean age of the cases was 20 (7-70) months and 58.7% were male. Upper respiratory tract infections were the most common cause of convulsions with 72.7%. Acute gastroenteritis followed with 20.9%. Simple febrile convulsion was present in 89.5% of cases. Brain tomography was required in 33.1% of the patients admitted due to FC. The most common month of presentation was November with 16.3%. Mean WBC level was  $13.4 \pm 6.0$  ( $\times 10^3/\mu\text{L}$ ), mean CRP level was  $24.2 \pm 35.3$  (mg/L), mean Glucose level was  $117 \pm 29.8$  (mg/dL), mean Sodium level was  $137 \pm 13.9$  (mmol/L).

**Discussion and Conclusion:** Because of the high risk of recurrence and high risk of epilepsy compared to the general population, it is important to follow up the patients admitted to emergency departments.

**Key Words:** Fever; Convulsion; Children; Batman

**EFFECTS OF METHANOL EXTRACT OF ALCHORNEA FLORIBUNDA LEAVES  
ON THE LIVER AND KIDNEY MARKERS OF TETRACHLOROMETHANE-  
INDUCED TOXICITY IN EXPERIMENTAL RATS**

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**ABSTRACT**

The present research was carried out to evaluate the protective effect of methanol extract of Alchornea floribunda leaves (ME AFL) on some liver and kidney parameters of tetrachloromethane (CCL<sub>4</sub>)-induced toxicity in rats. Standard biochemical methods were employed in the study. A total of twenty four (24) rats consisting of 6 groups of 4 rats each were used. Group 1 served as the normal control while group 2 served as a positive control (induced with CCL<sub>4</sub> without treatment). Group 3 (standard control) received 100 mg/kg body weight of silymarin while groups 4-6 were pretreated with 100, 200 and 400 mg/kg body weight of ME AFL respectively. The phytochemical analyses of ME AFL revealed saponin and carbohydrates contents in small amounts while alkaloids, flavonoids, phenolics and tannins were present at moderate amount. Terpenoids, steroids and glycosides were the highest. The acute toxicity test of the extract showed no toxicity up to 5000 mg/kg body weight. Administration of ME AFL led to a significant ( $p < 0.05$ ) reduction in alanine amino transferase (ALT) in group 5 (200mg/kg b.w of ME AFL) compared to group 2. The urea concentration of group 2 was found to be higher compared to groups 4-6 though not statistically ( $p > 0.05$ ) significant. The administration of CCL<sub>4</sub> led to increased concentration of lipid peroxidation marker, malondialdehyde (MDA) in groups 2-6. However, administration of the extract to groups 4-6, lowered MDA concentration compared to group 2 (untreated) though not

significant. The SOD level in group 4 (100mg/ kg b.w) was found to be higher than group 2 though not significant ( $p>0.05$ ). The activity of catalase in group 5 was found to be significantly ( $p< 0.05$ ) higher than group 2. The findings from the present study indicate that MEAFL possess hepatoprotective effects which could be attributed to its rich phytochemical constituents.

**Keywords:** Alchornea floribunda, tetrachloromethane, phytochemical, hepatoprotective

**COMPARATIVE STUDY ON THE GROWTH AND YIELD OF PLEUROTUS SAJOR-CAJU MUSHROOM CULTIVATED ON PENNISETUM PURPUREUM (ELEPHANT GRASS) AND SAW DUST OF TRIPLOCHITON SCLEROXYLON AS AN ENVIRONMENTAL CONTROL MEASURE**

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**ABSTRACT**

This paper highlights cultivation procedures of Pleurotus sajor-caju as a source of food, income in home gardens and making good use of materials that are termed waste which could be hazardous to the environment when not recycled. Cultivation of Oyster mushroom (P.sajor-caju) with commercial viability has been prepared in a way of model, keeping in view the agro-climatic conditions and other related aspects for successful cultivation of the mushroom. Evaluation on the growth, yield and biological efficiency of P.sajor-caju cultivated on Pennisetum purpureum (Elephant grass) was investigated. The sawdust of Triplochiton scleroxylon was used as a control measure for mushroom cultivation. Each treatment was replicated three times. Each of the sample consisted of 400g weight of substrate per bag. The produce of the mushroom, mycelia growth, diameter of the pileus, length of stipe, mushroom height were analyzed. The results indicated that the mean yield (g) produced from elephant grass substrates, though not higher than the saw dust, but it is enough weight for a better yield  $48.65 \pm 7.87$  and sawdust with their yield values of,  $53.95 \pm 4.62$  respectively. The biological efficiency (%) obtained is an indication that the P.sajor-caju utilizes the given substrates effectively. The highest biological efficiency (B.E) was found in elephant grass followed by sawdust which is the control with mean value of 95.29, and 40.05% respectively. The length of stipe, diameter of pileus and mushroom height showed that the mushroom produced from the two substrates used were of good sizeable stage.

**Keyword:** Pleurotus sajor-caju, Biological efficiency, Mushroom

## **EXPLORATION THE USE OF ESSENTIAL OILS FROM THREE AROMATIC AND MEDICINAL PLANTS AS A NATURAL ALTERNATIVE TO CONTROL COWPEA WEEVIL (CALLOSBRUCHUS MACULATUS)**

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### **Abstract**

Seed legumes, notably cowpea (*Vigna unguiculata* L. walp), play a pivotal role in global nutrition, particularly in developing nations. They hold a crucial position in the diet of many African communities. The significance of cowpea stems from various benefits, with it being a staple crop in tropical Africa, where approximately 200 million people include it in their diets. However, cowpea seeds are prone to significant damage during storage due to attacks by insect pests, notably the cowpea weevil (*Callosobruchus maculatus*). To devise a reliable strategy for managing these pests in stored produce, experiments were conducted utilizing essential oils extracted from *Syzygium aromaticum*, *Laurus nobilis*, and *Ziziphora hispanica*, targeting the cowpea pest or *Callosobruchus maculatus* infestation on cowpea seeds, under storage conditions of  $27 \pm 1$  °C and  $70 \pm 5\%$  relative humidity.

The essential oils of *Syzygium aromaticum*, and *Ziziphora hispanica*, were analyzed by gas chromatography-mass spectrometry (GC/MS), the chemical analysis reveals that *Syzygium aromaticum* essential oil (EO) comprises six compounds, with o-Eugenol being the primary component at 46%. Conversely, *Ziziphora hispanica* EO consists of four compounds, with pulegone as the predominant constituent, accounting for 86% of the composition.

The findings suggest that both *Syzygium aromaticum* and *Ziziphora hispanica* essential oils (EOs) exhibit repellent and toxic effects on *Callosobruchus maculatus* compared to the control groups. These EOs resulted a notable increase in adult mortality rates, significantly affecting the biological parameters such as fecundity, fertility, and adult emergence rate.

**Keywords:** Cowpea; *Callosobruchus maculatus*; pest, essential oils; plant; biological parameters.

**MANAGEMENT STRATEGIES USING FUNGICIDES AGAINST COLLAR ROT OF CHICKPEA INCITED BY SCLEROTIUM ROLFSII UNDER IN VITRO AND IN VIVO CONDITIONS**

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Collar rot of chickpea (*Cicer arietinum* L.), caused by *Sclerotium rolfsii*. *S. rolfsii* is an economically important pathogen with a broad host range of up to 500 species in 100 families. Characteristic symptoms of the disease include rapid plant wilting and the appearance of dark brown lesions at the base of the stem, which then surround the main stem. Infected plant tissue also exhibits white hyphal growth, often radiating across the soil surface, bearing fungal sclerotia and exhibits the characteristic symptoms of collar rot. Collar rot disease caused by *S. rolfsii* is the greatest inhibitory factor in chickpea cultivation, causing severe yield losses of up to 45 per cent. Results of present study showed that In vitro efficacy of different fungicides was evaluated against *S. rolfsii*. tebuconazole 50% EC and tebuconazole 50% + trifloxystrobin 25% WG found best among tested fungicides. Among all the chemicals evaluated under field conditions, seed treatment with tebuconazole 50% + trifloxystrobin 25% WG @ 0.1% found most effective exhibiting the lowest disease incidence, highest germination per cent and seed yield.

**Key words:** *S. rolfsii*, fungicides, management, collar rot, chickpea.

## RETROSPECTIVE REVIEW OF VISION SCREENING RESULTS

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### ABSTRACT

**Introduction and Purpose:** It is known that most of the visual defects in the first period of life are preventable. Successful treatment and interventions can be performed with early diagnosis in this period. Therefore, vision examination has become an indispensable part of the newborn screening program. The aim of this study was to determine the distribution of newborn babies admitted to the vision screening program and the precautions that can be taken.

**Materials and Methods:** In our study, the visual screening results of healthy infants aged 0-3 months who applied to the ophthalmology outpatient clinics of Batman province hospitals between 2022 and 2023 were analyzed. Patients were evaluated according to age, gender, diagnosis, and residential area. SPSS (Statistical Package for Social Sciences) for Windows 22.0 program was used for statistical analysis.

**Results:** Between 2022 and 2023, 10703 infants aged 0-3 months were examined for vision in ophthalmologic outpatient clinics. While 57.7% of the cases were boys, 42.3% were girls. The majority (80.1%) of the applicants to the outpatient clinic were residents of the center. As a result of the examination performed in the babies who applied, normal eye examination was found most frequently (94.8%). 472 infants had retinopathy of prematurity, 60 had strabismus and 10 had cataract.

**Discussion and Conclusion:** Thanks to the rapid progress made in the process of early diagnosis thanks to screening in infancy, a problem that may affect the baby's future life can be eliminated with early intervention. Therefore, it is especially important to refer infants to the relevant outpatient clinics for visual examination.

**Key Words:** Vision examination; Healthy child follow-up; Batman

## **FISHCAKE WITH THE FLAVOUR OF TRADITIONALLY PICKLED FISH BOSOU**

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### **Abstract**

This project intends to tweak the typical fishcake to include a flavour that the locals are more familiar with. Bosou is a traditional dish among the Kadazandusun community in Sabah in which it is a type of pickle that contains fish and vegetables.

**Keywords:** Bosou, pickle, fishcake



## **OPTIMIZATION OF NATURAL FREQUENCIES BY GENETIC ALGORITHM OF FGM SHELLS REINFORCED BY CARBON NANOTUBE**

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In the present study, an analytical model was developed to study the nonlinear vibration of doubly curved shallow shells made by a graded functional material (FG-NTC) reinforced by carbon nanotubes. Using the multiple scale method (MSM), the nonlinear differential equations of the motion of the FGM shallow hull were determined. Nonlinear Von-Kármán geometric relations and Galerkin's method were presented to reduce partial differential equations associated with simply supported boundary conditions. The novelty of the current model is the simultaneous prediction of natural frequencies and their natural modes as a function of curvatures (cylindrical, spherical, conical and plates) and types of configuration of the FG-NTCs. The combination of vibration analysis with a genetic algorithm (GA) optimization model has been developed to maximize natural frequencies. Considering the expression of non-dimensional frequency as an "objective function", we developed a genetic algorithm program to evaluate the mechanical properties, geometric properties and FG-CRNTC configuration of doubly curved shallow shells. The obtained results showed that curvature, volume fraction and CNT distribution types have considerable effects on the variation of the dimensionless linear fundamental frequency (FLFAD). We found that variation in mechanical and geometric properties, volume fraction, and distribution types of CNTs have a significant effect on the fundamental frequencies of shallow double-curvature shells. Where the difference between optimized and non-optimized FLFAD can reach 13.26%.

**Keywords:** FG-NTC; natural frequencies; non-linear vibrations; optimization; shallow shell.

**DYNAMIC FACTORS OF LAND MARKETS IN THE MUNICIPALITIES OF  
ADJARRA AND AVRANKOU (BENIN)**

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**Abstract**

The municipalities of Adjarra and Avrankou currently constitute a main center of population and rapid urbanization. Several factors justify this state of affairs. This work aims to study the dynamic factors of land markets in the municipalities of Adjarra and Avrankou. Through field survey tools (questionnaire and semi-directive interview guides) combined with direct observation, it was a question of studying in detail the characteristics of land markets in the communes of Adjarra and 'Avrankou. The results show that economic factors (31.27%), political-administrative factors (25.04) and social factors (43.69%) are favorable to the dynamics of land markets. This induces residential dynamics, socio-spatial and environmental changes in the absence of legal instruments for land use planning.

**Key words:** municipalities of Adjarra and Avrankou, land markets, spatial changes, peri-urbanization.

**DITCHING & SWITCHING: SUBSTITUTING PLASTIC STRAWS WITH STRAWS  
FROM BIODEGRADABLE MATERIALS**

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**Abstract**

The purpose of this project was to educate the public on the harm of plastic straws to us and our environment. Therefore, this project also suggested several alternatives to plastic straws in order to encourage people to switch to items made of biodegradable materials than single-use plastics.

**Keywords:** straws, single use, biodegradable

## **RE-THINKING THE ARCHITECTURE OF FERNAND POUILLON: TOWARDS A MODEL OF LOCAL URBAN DEVELOPMENT**

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### **Abstract:**

Nowadays, urban development is deteriorating, with citizens being completely overlooked in all urban planning operations. Studies in this field have revealed that the problem is directly linked to the lack of coordination among the various urbanization stakeholders. This correlation issue arose from the very onset of independence when our country chose to orient its development towards industrialization without considering environmental aspects, regional resources, cultural diversity, and local identity. This led to a standardization of the built environment, fostering a hostile relationship between humans and their environment and ancestral heritage.

Moreover, the Mediterranean urbanist Fernand Pouillon remained steadfast in his commitment to traditional urbanism. His ideas were often inspired by the beauty and richness of traditional Algerian vernacular urbanism, particularly that of the Casbah of Algiers and the M'Zab valley.

In this study, we aimed to explain, through the Diar-El-Mahçoul City in Algiers, how Pouillon interpreted the notion of local development for equitable urban citizenship. This work was informed by field visits, photography, and surveys with the city's residents. The findings of this study prompted us to reflect on these neo-vernacular urbanism models in order to derive beneficial and applicable lessons that can contribute to the local urban development of Algeria's new cities.

**Keywords:** Fernand Pouillon, local urban development, Diar El Mahçoul in Algiers, urban citizenship, and environmental protection.

## **SELF EFFICACY AND EMOTIONAL INTELLIGENCE AS PREDICTORS OF PSYCHOLOGICAL WELL-BEING AMONG COLLEGE STUDENTS**

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### **Abstract:**

This study has been undertaken to investigate the relationship among Self Efficacy, Emotional Intelligence and Psychological Well-Being among college students. A study was made on random sampling of 100 college students selected from different colleges of Agra. Three scales were used 1. General Self Efficacy scale 2. Emotional Intelligence Scale 3. Psychological well-Being scale .Correlation design was used. Result indicate that Psychological Well-Being and Self Efficacy are positively correlated ( $r = 0.245$ ,  $p < 0.01$ ) and Psychological Well-Being and Emotional intelligence are also positively correlated ( $0.398$ ,  $P < 0.01$ ). Thus increases in Self Efficacy and Emotional Intelligence led to increase Psychological well-being score among college students. Multiple regression analysis was also used and it showed that Emotional Intelligence has highest contribution in determination of Psychological well-being regression coefficient been,  $0.14$ . Self Efficacy has less contribution in determination of Psychological well-being regression coefficient been  $0.03$ .

**Keywords:** Self Efficacy, Emotional Intelligence and Psychological Well-Being, Correlation and Multiple Regressions.

## **PLANTING TREES TO SAVE THE PLANET & PROMOTE HEALTHIER LIFESTYLE**

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### **Abstract**

The purpose of this project was to raise public awareness on the importance to plant trees in order to offset the effects of deforestation and mitigate the impact of global warming. This project also sought to mobilize people to take part in reforestation efforts since trees also help to promote our mental wellbeing.

**Keywords:** reforestation, wellbeing, global warming

## NUMERICAL ANALYSIS OF NEWTONIAN AND NON-NEWTONIAN FLUIDS IN CONCENTRIC AND ECCENTRIC CHANNELS AND COMPARISON WITH EXPERIMENTAL STUDY

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### ABSTRACT

**Introduction and Purpose:** The present research is concerned with the measurement of turbulent densities and velocity of Newtonian and non-Newtonian fluids in concentric and eccentric channels. Fluids used in industry, as an important application area in drilling oil wells, are generally non-newtonian fluids with low effective viscosity and high yield stress. In drilling studies, non-newtonian fluids was generally used instead of Newtonian fluids. Because, in addition to the velocity properties of these fluids, their viscometric viscosities also become important.

The aim of this study is to compare numerical results with experimental data in concentric and eccentric channels ( $\epsilon=0.5$  and  $1$ ) using the same parameters used in the previously experimental study.

**Materials and Methods:** The geometry of the channel was created along with its dimensions, taking into account the experimental studies on concentric and eccentric channels. Meshing is done for the geometry created on ANSYS Fluent and required criteria are met. Average flow conditions and properties of Newtonian and Non-Newtonian fluids are shown and also reynolds stress model was preferred in the ANSYS program for turbulence intensities and velocity of fluids.

**Results:** Axial velocity profiles and Reynolds stresses were separately calculated for concentric and eccentric ( $\epsilon=0.5$  and  $\epsilon=1$ ) channels for Reynolds numbers 26600 and 9600. These results are compared with experimental results. In the concentric channel, the flow is symmetrical and the graph was obtained for  $Re = 26600$ .

**Discussion and Conclusion:** Experimental and numerical results are close to each other between newtonian and non-newtonian fluid without rotation for concentric and eccentric ( $\epsilon=0.5$  and  $1$ ) channels. While the velocity profile in laminar flow is less inclined and flatter, the numerical results are more inclined and turbulent flow is dominant over viscous diffusive flow, as in newtonian flow.

**Key Words:** Newtonian, Non-Newtonian, Fluid, Turbulence, Numerical.

**EFFECT OF CORNCOB AND HOUSE WASTE BIOCHAR ON GROWTH PERFORMANCE, AND BODY COMPOSITION OF GRASS CARP (CTENOPHARYNGODON IDELLA) FINGERLINGS**

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The study was aimed to find out how different types of biochar supplemented sunflower meal diets influence the growth and body composition of *C. Idella* fingerlings. Seven different diets were tested in the experiment. A sunflower meal-based diet was supplemented with 2% of various types of biochar (cotton stick, wheat straw, corn cob, house waste, grass waste, and green waste biochar). The control diet was without biochar. As a non-digestible marker, chromic oxide was added to the diets. Each day, at the 5% of their live wet weight, fingerlings were fed. The maximum weight gain (299.69%), lowest FCR (1.34), highest SGR (1.98) were recorded in corn cob biochar supplemented sunflower meal based diet test diet. In case of body composition, corn cob biochar supplemented sunflower meal based diet indicated significant ( $p < 0.05$ ) improvements in crude protein ((16.87%) and crude fat (6.37%). From these results, it was concluded that 2% corn cob biochar supplementation in sunflower meal based diet is optimum for improving growth performance and body composition of *C. Idella* fingerlings.

Keywords: biochar, *C. Idella*, growth, body composition

**Keywords:** Grass Carp, Corncob Biochar, House Waste Biochar



## **CURRENCY WARS IN INTERNATIONAL TRADE: IMPLICATIONS FOR FOREIGN DIRECT INVESTMENT AND EXPORT STRATEGIES**

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### **Abstract**

Recent years have seen a rise in the prevalence of currency wars in international commerce, which are typified by competitive devaluations and exchange rate manipulations. The phenomena under consideration bears noteworthy significance for export strategies and foreign direct investment (FDI) tactics utilized by both national and multinational businesses (MNCs). With the use of theoretical frameworks and empirical data, we investigate in this study the complex effects of currency wars on export strategies and foreign direct investment. Currency conflicts skew exchange rates, which reduces export competitiveness and increases the allure of locations for foreign direct investment. Multinational corporations (MNCs) need to adapt their export pricing strategies and investment decisions to effectively traverse this market. Second, these wars' effects on currency volatility raise uncertainty and make it harder for businesses to plan ahead and manage risk. Thus, it becomes essential to use smart hedging to reduce exposure to currency risk. Currency wars may intensify trade disputes and lead to protectionist policies, which makes conducting business internationally even more difficult. This means that controlling political and regulatory risks in overseas markets requires a sophisticated strategy. Countries involved in currency wars may also impose capital controls, which would hinder trade financing and foreign direct investment. Global supply chains may change as a result of currency wars as businesses look to reduce risk associated with currency fluctuations and improve cost structures. The necessity of agility and flexibility in supply chain management is highlighted by this dynamic environment. In the face of shifting global economic dynamics, developing successful FDI and export plans requires a grasp of the ramifications of currency wars.

### **Keywords**

Currency wars, Foreign direct investment (FDI), Export strategies, Exchange rate volatility, Global supply chains.

**INVESTIGATION OF THERAPEUTIC POTENTIAL OF METHANOL EXTRACT OF EUCALYPTUS GLOBULUS LEAF IN MITIGATING ETHANOL-INDUCED INFERTILITY IN ALBINO RATS**

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**Abstract**

Infertility is a disease of the reproductive system and is defined as the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse or the inability to stay pregnant. This research investigates the therapeutic potential of methanol extract of Eucalyptus globulus leaf in mitigating ethanol-induced infertility in albino rats. Determination of acute toxicity profile, hormonal analysis and semen profile of the of methanol extract of Eucalyptus globulus leaves (MEEGL), was carried out using standard method. The percentage yield of Eucalyptus globulus leaves is 36.7%. Qualitative phytochemical analysis of Eucalyptus globulus leaves revealed that flavonoids, tannins, and phenols were highly detected, then alkaloids, terpenoids and glycosides were moderately present, whereas saponins, steroids and hydrogen cyanide were slightly detected. The results showed that median Lethal dose (LD50) of the ethanol extract shown not toxic effect up to the dose of 5000 mg/kg body weight. The result showed that groups treated with 200, 400 and 600 mg/kg body weight of extract show a significant ( $P>0.05$ ) reduction in sperm sluggish and dead sperm with corresponding increase in active sperm, normal and sperm count when compared with untreated group. The result shows a significant increase in testosterone level, Luteinizing hormone and follicle stimulating hormone level when compared with untreated group. It is concluded that the methanol extract of the Eucalyptus globulus leaves has considerable anti-infertility effects on ethanol induced infertility, confirming the reason for its wide use in the traditional treatment of impotence and other related diseases conditions.

**Keywords:** Infertility, sperm count, Eucalyptus globulus, Methanol extract

## INVESTIGATION ON THE PLASTICIZING EFFECT OF LEMON JUICE ON CONCRETE

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### ABSTRACT

The use of lemon juice as plasticizer tends to solve the issue of Workability, water reduction, cost effective which pose as a challenge in the production of concrete by addressing these challenges, the use of lemon juice as a plasticizer in concrete production offers a sustainable, efficient, and cost-effective solution for the construction industry. The study investigates the effect of lemon juice as a plasticizer in concrete production. The following tests were carried out: sieve analysis, slump test, and compressive strength. During the course of this research, it was determined that the percentages of lemon utilized as an admixture in the concrete were 0.2%, 0.3%, 0.4%, 0.5%, and 0.6% for different water/cement ratios of 0.60, 0.55, and 0.53, respectively. The idea of plasticizer was confirmed with water/cement ratios of 0.53 and 0.55. The workability of the concrete was greatly improved when the lemon juice dosage was 0.5%. This was repeated again with a water/cement ratio of 0.6 and that of 0.6% lemon. From the results obtained with water/cement ratio of 0.53 and the lemon dosage at 0.2%, there is an observed increase in compressive strength of the concrete. Therefore lemon juice can be used where higher compressive strength is desirable thereby performing multi-roles, both as a plasticizer and sources of increased strength in concrete. Lemon juice can be used as plasticizer, and it will be economical compared to other industrial types of plasticizer. Lime juice or any other citrus fruit that has citric acid value close to that of lemon can be used as alternative.

**KEYWORD:** plasticizer, water/cement ratio, compressive strength.

## MOJARI CRAFT

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### **Abstract**

In rural Rajasthan, a beautiful tradition of leather crafting thrives, passed down through generations within close-knit artisan families. These skilled artisans create the Juti, Mojari, and Pagarkhi, beloved leather footwear worn by men and women across communities. These shoes aren't just functional; they're a symbol of heritage and craftsmanship.

Over 100,000 households in Rajasthan contribute to crafting these shoes, each pair meticulously stitched from coarse, vegetable-tanned leather. The Mojari, once a royal symbol, has evolved into a canvas of artistic expression. In Jaipur, delicate embroidery graces velvet, while Jodhpur showcases masterful golden ornamentation on leather.

The heart of authentic Mojari lies in its materials—fine leather and vibrant colors that echo Rajasthan's spirit. More than fashion statements, these shoes carry stories of tradition and elegance, often adorning celebratory attire during festivals and ceremonies. What's truly special is how Rajasthani Mojari has transcended borders, blending traditional artistry with contemporary flair, and finding a place in global fashion, reminding us of the enduring beauty in cultural fusion.

The primary goal of the research is to raise awareness of 'Mojari Craft' as a time-consuming and beautiful art form around the world. In recent time Government of India has changed the situation of the artisans and has given them different different platform to showcase their products.

**Keywords-** Mojari, Juti, leather art, Craft, and Sustainability

## RECENT ADVANCEMENT ON MICROFLUIDIC TECHNOLOGIES FOR CANCER

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### **Abstract:**

There are a significant number of deaths that are related with cancer since there are not enough effective diagnostic and therapeutic options. In the field of cancer detection and therapy, microfluidic systems, which can analyse a small number of samples, provide a method that is accurate, speedy, and user-friendly. In addition to generating nanoparticles that are suitable for medication delivery, microfluidic devices can detect a wide variety of cancer-diagnostic variables via biological fluids. Considering this, microfluidics may prove to be advantageous in the field of cancer research because to its high sensitivity, high throughput, and cheap operating cost. Regarding the application of microfluidic devices for the diagnosis and treatment of a variety of malignancies, the purpose of this article is to provide a review of current accomplishments in this field. Even though microfluidic platforms have not yet been implemented in clinical settings, it is anticipated that they will eventually become the primary technology utilised for the diagnosis and treatment of cancer. For the detection of cancer biomarkers and therapy methods, microfluidic technologies are proving to be more sensitive and accurate than conventional assays now available. When it comes to the creation of novel processes for cancer detection, therapy, and disease follow-up, as well as the development of new drug delivery systems for cancer treatment, microfluidic lab-on-a-chip platforms have demonstrated extraordinary potential over the past few years.

**Keywords:** Microfluidic; Laminar flow; Cancer; Metastasis; Lab-on-a-Chip.

## OXIDATIVE STRESS INDEX IN COENUROSIS DISEASE OF SHEEP

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### ABSTRACT

**Introduction and Purpose:** *Coenurus cerebralis*, which causes economic losses, is a parasitic infection caused by the larval forms of the dog tapeworm called *Polycephalus multiceps* (*Multiceps multiceps*). Its intermediate host is sheep, goats, cattle, horses and sometimes humans, while its final host is the dog. The larva causes an acute phase response depending on the cellular and humoral response in the animal tissues where it settles, and as a result, changes occur in acute phase protein synthesis in the liver. Therefore, our aim in the study is to determine oxidative stress parameters (TOC and TAC) in sheep with coenurosis.

**Materials and Methods:** In the study, 15 healthy and 15 sheep with coenurosis were used. Blood was collected from the Vena jugularis of the animals into tubes without anticoagulant.

**Results:** As a result of the analysis, it was determined that TOC and oxidative stress index (OSI) values increased and TAC decreased in sheep with coenurosis.

**Discussion and Conclusion:** As a result, it was concluded that antioxidant applications may be beneficial against oxidative stress in sheep with coenurosis.

**Key Words:** Oxidative Stress Index; Sheep; Coenurosis

## THE GLOBALISATION OF SAHARAN VERNACULAR HERITAGE. THE CASE OF THE M'ZAB VALLEY IN ALGERIA

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### **Abstract:**

Algeria is a North African country with a Mediterranean coastline stretching for 1200 Kilometers. It shares borders with Morocco, Mauritania, and the Western Sahara to the west, Tunisia and Libya to the east, and Mali and Niger to the south, and undeniably occupies a privileged and diverse geographical position. Algeria's long strip of land is naturally divided into three zones: the Tell, the high plateaux, and the Sahara. The Sahara occupies a large part of the country, covering 80 to 85% of Algeria's total area.

Algeria's strategic geographical position, vast territorial expanse, and ethnic and cultural diversity have given rise to an exceptionally rich Ksourian heritage. Throughout its urban history, this heritage played a major geostrategic role, right up until the arrival of French colonisation in the second half of the 19th century. The M'Zab valley, located in the heart of the Sahara Desert of Algeria, is an emblematic example of this heritage, having gained universal recognition thanks to its unique heritage values.

The M'Zab Valley has preserved its cultural and architectural identity throughout the ages, testifying to the ingenuity and resilience of its inhabitants in the face of environmental and socio-political challenges. Its ksour, or fortified villages, are jewels of vernacular architecture, representing an age-old way of life adapted to the surrounding desert.

At the national level, the M'Zab Valley was classified as a national heritage site in 1971 and created as a protected area in 2005. The M'Zab Valley also received international recognition in 1982, when UNESCO included it on the list of World Heritage Sites. This distinction testifies to the exceptional value of this cultural landscape, its importance for humanity, and the need to preserve it for future generations.

The M'Zab Valley is a perfect illustration of the richness and diversity of Algeria's Ksourian heritage and highlights the importance of preserving and promoting it for the benefit of all mankind. This heritage is a precious testimony to the history and culture of the region, and its protection is of vital importance in the current context of globalisation and urban development.

The methodology of this article aims to deepen knowledge and promote recognition of the heritage of the M'Zab Valley. To this end, the article is structured in two distinct parts, each offering a specific insight into this unique Saharan region. The first part provides a general introduction to the Saharan region, highlighting its geographical, climatic, and historical features. It also looks at the cultural and architectural features of desert regions, highlighting the importance of vernacular heritage in this context. The second part focuses specifically on the M'Zab Valley, describing its unique history, geography, culture, and architecture. It examines in detail the different elements that make up the valley's heritage, such as the ksour, traditional building techniques, and the way of life of the inhabitants. This section also highlights the heritage preservation and enhancement efforts undertaken in the M'Zab Valley, as well as the challenges it faces in the context of globalisation and urban development.

**Keywords:** Algeria; M'Zab valley; Sahara; Ksour; UNESCO.

## **STRONG LEVEL OF STABILITY IN THE FINANCIAL SERVICES SECTOR AMID CONTINUOUS GLOBAL CHALLENGES**

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### **Abstract**

The Monthly Board of Commissioners Meeting of the Financial Services Authority (OJK) on November 29, 2023 assessed that the stability of the national financial services sector was maintained, supported by strong capital and adequate liquidity, so that it was considered capable of facing the continued decline in economic growth and high global uncertainty. In this research, the research approach used is a qualitative method. The data source obtained using secondary data sources. The collection method in this study uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that in order to participate in supporting national economic growth, OJK actively encourages bank credit growth and increases financial inclusion. Furthermore, considering the increase in market competition with the development of channeling funds from various FSIs other than banks in meeting the consumption needs of the community, efforts are needed to increase the role of banks in lending to MSMEs and consumption credit in the form of multipurpose loans, especially for people with lower middle income. Banks need to continue to make innovations and continuous improvements in lending so that banks can expand the reach of segmentation to the lower middle income community and MSMEs, and support healthy business competition among FSIs, while still paying attention to aspects of consumer protection. OJK encourages Financial Services Institutions (FSIs) to continue to monitor potential risks including conducting resilience stress tests against market turmoil, as well as carrying out risk mitigation strategies in order to maintain capital and liquidity resilience, so that the financial services sector can be maintained stable and can contribute optimally to the national economy.

**Keywords :** Financial Services Authority, Continuous Global, Economy



## **EDIFYING HISTORY VIA VIDEO GAMES**

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### **Abstract**

The purpose of this project was to illustrate how video games can be used as didactic multimedia for students to learn about world history. A lot of commercially available video games that youths worldwide are playing portray historical events and figures almost accurately that these video games can be potentially used to educate the public especially the young generation on our history.

**Keywords:** world history, video games, didactic

## INVESTIGATION OF PHOTOCATALYTIC DEGRADATION OF TOXIC DYE IN AQUEOUS SOLUTION IN THE PRESENCE OF $\text{CdMoO}_4$ NANOCATALYSTS

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### Abstract

Molybdates are materials that have involved the benefit of many researchers because of their broad potential to industrial application involving optic fiber, humidity sensor, catalysts and scintillation detector. Cadmium molybdate ( $\text{CdMoO}_4$ ) nano-particles were successfully synthesized by a new method at a low temperature of  $500^\circ\text{C}$

The as-prepared nanostructured cadmium molybdate was analyzed by X-ray diffraction (XRD), Scanning electron microscopy (SEM), and Energy dispersive X-ray spectroscopy (EDX).

The photocatalytic activity of the synthesized products has been compared for the photo-degradation activity of methylene blue (MB). since the % uptake was found to be  $>90\%$  within 120 min.

**Keywords:** Cadmium molybdate nanopowders, photo- degradation, methylene blue

**DRINKING WATER PROMOTES HUMAN WELLNESS WHILE MINIMIZING  
OUR HARM ON THE ENVIRONMENT**

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**Abstract**

The purpose of this project was to encourage people to choose plain water as their main everyday drink while reducing their consumption of beverages. This project also delineated the benefits of such practice to our environment.

**Keywords:** water, environment, health

## **PHYTOCHEMICAL EVALUATION AND PHARMACOLOGICAL USES OF TURMERIC (CURCUMA LONGA)**

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### **Abstract**

Turmeric is a golden spice which belongs to the family of zingiberaceae. Curcumin is the main constituent found in the turmeric. It is a yellow polyphenolic pigment. Other constituents found are demethoxycurmin and bisedemethoxycurcumin. It is widely planted in China, India, and Japan. More recently, evidence that curcumin may have anti-oxidants activities; anti-fungal, anti-microbial, anti-inflammatory and anti-cancer activities has renewed scientific interest in its potential to prevent and treat the disease. Chemical constituents of turmeric plant are extensively investigated. It mainly contains primarily phenolic compounds, Terpenoids monoterpenes, sesquiterpenes, alkaloids and other compounds have been identified. The main objective of this research to analysing the nutraceuticals qualities and bioactive compounds within turmeric that contribute to human nutrition and chronic disease prevention.

## UNVEILING CHARACTER TRAITS IN FAIRY TALES THROUGH LEXICAL AND STYLISTIC DEVICES

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### **Abstract**

This study explores the portrayal of character traits in fairy tales through an analysis of lexical and stylistic devices. Fairy tales are a rich source of cultural and psychological insights, often serving as a reflection of social norms and values. By examining the language used to describe characters and the stylistic techniques employed by storytellers, this research aims to uncover the underlying character traits that are prevalent in folklore. The methodology of this study involves a close reading of a selection of fairy tales, focusing on the descriptions of characters and the ways in which they are presented to the reader. Lexical analysis will involve identifying key words and phrases that are used to convey specific traits or qualities, while stylistic analysis will examine the narrative techniques employed to create vivid and memorable characters. Through this analysis, the study seeks to identify common character traits that are frequently depicted in fairy tales, such as bravery, cunning, kindness, and loyalty. Additionally, the research aims to uncover any cultural or historical influences that may have shaped the portrayal of these character traits in folklore. This study contributes to our understanding of the cultural and psychological significance of fairy tales, shedding light on the ways in which character traits are revealed and developed through lexical and stylistic devices. By delving into the world of folklore, this research offers valuable insights into the enduring appeal and relevance of these timeless stories.

**Keywords:** lexical means; stylistic devices; English fairy tale; Belarusian fairy tale; Chinese fairy tale; artistic and figurative means.

## UTILIZATION OF KINNOW PEEL BYPRODUCT FOR PASTA FORTIFICATION

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### **Abstract**

The peel and pomace portion of Kinnow mandarin (*Citrus reticulata*) rich in polyphenols, flavonoids like naringin, carotenoids, pectin, and essential oils, which makes up 30–40% of the fruit weight, is the main waste product of the kinnow juice industry. These bioactive substances are highly valuable in food processing, pharmaceutical, and biofuel manufacturing industries, and they are also nutritionally sound. The Kinnow peel, otherwise a waste, is more valuable to the industry since it is readily available and inexpensive, and it serves multiple purposes. This organic waste holds a great potential to be converted into nutritious value-added products. Organoleptic evaluation revealed statistical acceptance of pasta fortified with 2, 4, 6, 8 and 10% of kinnow powder. Pasta fortified with 6% kinnow peel powder was the most. Pasta fortified with 6% kinnow peel powder were tested for DPPH, FRAP, total phenolics and total flavonoids.

**Keywords:** Kinnow; By-products; Peel; Pasta; Organoleptic evaluation

## OPERATIONAL PERFORMANCE ASSESSMENT OF EUROPE'S BUSIEST AIRPORTS

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### ABSTRACT

Today, international airports are considered as important economic units that not only provide passenger and freight transportation but also cover all activities related to logistics, service, production, entertainment, tourism sectors and bring countries closer to each other. Performance evaluation is very important in complex and intensive businesses such as airports. Performance evaluation is a critical tool to improve the management of airports, increase competitiveness and provide more efficient services. In this context, this study analyzes 8 airports (Athens Elefterios Venizelos Airport, London Heathrow Airport, Paris-Charles-de-Gaulle Airport, Frankfurt Airport, Amsterdam Schiphol Airport, Rome Fiumicino Airport, Munich Airport, Zurich Airport) whose operational data can be accessed among the busiest airports according to the European Aviation Environment Report (EASA) 2019 data. The operational performance of these airports was evaluated on the basis of 8 criteria. The criteria taken as basis in the evaluation are the number of airport personnel, distance of the airport to the city, airport size, number of terminals, parking capacity, number of runways, cargo quantity and number of passengers. The aim of the study is to determine the importance levels of the criteria when evaluating the performance of airports and to evaluate the results in the performance rankings of the relevant airports. This evaluation serves as a basic guide for making strategic decisions and optimizing operations. In the analysis, 8-year data covering the period 2016-2023 were used by taking arithmetic averages and a decision matrix was created. Performance evaluation was carried out with CRITIC supported ARAS method, one of the multi-criteria decision making methods. The importance levels of the criteria were determined using the CRITIC method. With the ARAS method, the operational performance rankings of the analyzed airports were obtained. In the evaluation process, the most important criterion was determined as the number of passengers and the least important criterion was determined as the parking capacity. As a result of the study, Athens Elefterios Venizelos Airport has the highest operational performance and Paris-Charles-de-Gaulle Airport has the lowest operational performance.

**Keywords:** Performance evaluation, Airport, CRITIC, ARAS

## **EXTRACTION OF ESSENTIAL OILS FROM TWO WILD AND DOMESTICATED PLANTS OF THE OREGANO SPECIES COLLECTED IN THE TAZA REGION**

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### **Abstract**

Oregano, one of the most threatened species due to overexploitation by local populations. To solve this problem, one of the most effective solutions is to identify and select the most promising species for subsequent domestication. The aim of this study was to determine the chemical composition of essential oils extracted from wild and domesticated Oregano.

With the help of field trips, we collected seed samples from wild species and carried out germination tests and field transplants of plant species, following them through to the flowering stage. We then harvested domesticated and wild species to extract essential oils from two Oregano plants. The aerial parts of two wild and domesticated plants were left to air-dry in shaded areas at room temperature for two weeks. They were then stored in bags protected from light. Essential oils were obtained by hydro distillation and chemical analysis by gas chromatography/mass spectrometry (GC/MS).

The results indicate that most compounds in wild and domesticated Oregano are the same with slight differences in concentration, of which thymol, carvacrol and o-cymene are the majority compounds.

**Key words:** Domesticated, Essential oils, Oregano, medicinal plants, wild.



## PREPARATION OF HYDROGEL BEADS CONTAINING PLANT EXTRACT

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### **Abstract**

Hydrogels are a group of hydrophilic polymeric network having a three dimensional porous structure by having the proper arrangement small or macromolecular polymers in it. Their hydrophilic structure allows them to store water in their three-dimensional (3-D) networks but not dissolved in water. The hydrogel products have different important functions like in drug delivery systems, food additives, separation of biomolecules or cells, pharmaceuticals, biomedical applications, tissue engineering and regenerative medicines. The most common polysaccharides used to formulate hydrogels Chitosan, Alginate, Cellulose, Starches, Locust Bean Gums, Xanthan gum, Guar Gum etc. Hydrogel formulations made it possible for the bioactive components of plant extracts to be encapsulated. Plant extracts significantly impact human nutrition and can treat several ailments. The plant extracts possess various herbal properties including antiparasitic, antibiotic, antioxidant, antihypertensive, antiviral, insecticide, anticancer, antifungal, and hypoglycemic activities. The hydrogel beads are prepared by Ionotropic Gelation method which based on the reaction between a polymeric solution & a gelling agent. Drug delivery always face different challenges like low solubility of the drug in a carrier and its low bioavailability. These factors have prompted scientists to look into novel medicine delivery strategies. Different studies showed that the polymers used to make the Hydrogel Beads reduces the pores which in turn reduces the drug release rate over a period of time.

**Keywords:** Hydrogel beads, Ionotropic Gelation, Polymeric solution, Drug (plant extract) Release

## EFFICACY AND SAFETY OF TRAMADOL AND LOW DOSE REMIFENTANIL IN POSTTORACOTOMY PAIN

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### ABSTRACT

**Introduction and Purpose:** It has been reported that remifentanil is used as infusion and intermittent bolus doses in postoperative analgesia. It has been found to be quite effective in abdominal surgery in combination with low-dose tramadol, but its effectiveness in thoracotomy has not been tested. We aimed to investigate the effectiveness of this drug combination in the treatment of pain after thoracotomy.

**Material and methods:** The study was conducted at Gaziantep University Hospital after obtaining ethics committee and patient approvals. All patients were similarly administered general anesthesia. At the end of the surgery, the patients were randomly divided into two groups. Two separate solutions were prepared: only tramadol for Group T and tramadol + remifentanil combination for the other group (Group TR). The patients were connected to the PCA device (0.3 mg/kg tramadol bolus 10 min lock), so in Group TR, 0.45 µg/kg remifentanil was given in each bolus dose. The person giving and evaluating the drug was unaware of which drug it was. Hemodynamic data, SpO<sub>2</sub>, VAS at rest and coughing, Tramadol consumption and side effects (hemodynamics, respiration and nausea) were recorded at 1, 2, 4, 6 and 12 hours after surgery.

**Results:** In Group TR, VAS scores were lower at all measurement times, in terms of hemodynamics, group TR blood pressures and pulses were low, but not at a level that required intervention, and no respiratory depression was observed in any patient. Nausea was observed in both groups, but there was no statistical difference.

**Discussion and Conclusion:** In conclusion; In our study, it was determined that the combination of remifentanil and tramadol administered at appropriate doses with iv PCA was more effective than tramadol alone in postoperative pain that developed after thoracotomy, and that it did not have a clinically negative effect on cardiovascular and respiratory parameters.

**Keywords:** Postthoracotomy pain, Patient-controlled analgesia, tramadol, remifentanil

## MONITORED ANESTHESIA CARE AND EFFECTIVE DOSE OF REMIFENTANIL IN TRANSURETRAL RESECTION - RANDOMIZED CONTROLLED STUDY

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### ABSTRACT

**Introduction and Purpose:** General or regional anaesthesia is often preferred for transurethral resection (TUR) due to potential risks (eg. obturator jerk, transurethral resection of prostate (TUR-P) syndrome etc). However, thanks to innovations in this field, the number of patients undergoing TUR under monitored anaesthetic care (MAB) is increasing. We aimed to investigate the efficacy and safety of TUR under MAB and the effective dose of remifentanil.

**Material and methods:** In this prospective, randomized, controlled trial, patients with underwent TUR was included. Vital signs before and after induction (1, 5, 10, 15, 20, 30, 40, 50, 60 minutes) were recorded. Propofol 1 mg.kg<sup>-1</sup> and remifentanil 0.25 µg.kg<sup>-1</sup> were given to both groups during induction. Then, 3 µg.kg<sup>-1</sup> .h<sup>-1</sup> in Group 1 and 6 µg.kg<sup>-1</sup> .h<sup>-1</sup> in Group 2 remifentanil infusion was performed. The depth of anaesthesia was monitored by Bispectral index (BIS) monitoring. In addition, intraoperative and postoperative side effects, surgeon satisfaction, propofol consumption (PC) and recovery time were recorded.

**Results:** In our study, effective sedation and analgesia were achieved in both groups. However, intraoperative depth of anaesthesia, postoperative recovery time and surgeon satisfaction were better in Group 2. Hemodynamic and side effects were similar between the groups. However, SpO<sub>2</sub> values were lower in Group 1 patients at 1, 5 and 15 minutes intraoperatively. PC was also lower in Group 2.

**Discussion and Conclusion** We believe that TUR procedures using both remifentanil doses can be preferred under MAB. However, we concluded that Group 2 was better in terms of hemodynamic sedation level, surgeon satisfaction and postoperative recovery time.

**Key Words:** Propofol, Remifentanil, Monitored Anesthetic Care, Bispectral Index, Transurethral Resection

## INVARIANCE OF SOME SPECIAL TYPES OF CURVES UNDER TRANSFORMATION IN ROBOT KINEMATICS

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### ABSTRACT

**Introduction and Purpose:** This study deals with the invariance of some special types of curves under  $A_p = {}^A_B R \cdot B_p + A_{p_{BORG}}$  transformation in robot kinematics. In this paper, parametric equations were used specifically for the helix curve and the circle curve. It was shown that the characterizations of the curves given under the general transformation did not change. Additionally, to clarify the subject, some angle values and translation vectors were taken and a few numerical examples were given. As a result, the invariance of these curves under the transformation  $A_p = {}^A_B R \cdot B_p + A_{p_{BORG}}$  was shown.

**Materials and Methods:** In examining the curves, it was examined whether there was a change in the characterization of the curve as a result of rotation by any angle on a certain axis and translation by any vector.

Helix curve and circle curve are discussed and supported with examples.

**Results:**  $\alpha(t) = (r \cos t, r \sin t, at)$  parametric helix curves and  $\alpha(t) = (r \cos t, r \sin t, 0)$  parametric circles are discussed. Consequently, the invariance of these mentioned curves under this transformation was shown. This paper provides extensive and It is an application of comprehensive and improved results previously studied.

It has been determined that the characterizations of the curves do not change for an  $\theta$  angle taken and a (k,l,m) vector taken in line with general definitions and theorems.

**Key Words:** Robot kinematics, Transformation, Rotation and translation, Curves, Characterization.

## **MACHINE LEARNING FOR AIR QUALITY PREDICTION: INSIGHTS FROM DATASET**

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### **Abstract**

The Air Quality Dataset provides valuable insights into air pollution levels, with measurements of pollutants like CO, NO<sub>x</sub>, and O<sub>3</sub> from various monitoring stations across different cities. In this study, we leverage machine learning techniques for air quality forecasting using this dataset. We preprocess the data to handle missing values and extract relevant features for analysis. Time series forecasting models, including ARIMA, LSTM, and Prophet, are employed to predict pollutant levels based on historical data. Evaluation metrics such as Mean Absolute Error (MAE), Root Mean Squared Error (RMSE), and R-squared (R<sup>2</sup>) score are used to assess the performance of the forecasting models. The results demonstrate the effectiveness of machine learning in predicting air pollution trends and patterns, facilitating informed decision-making for environmental management and public health interventions. By integrating machine learning with the Air Quality Dataset, we contribute to advancing air quality forecasting capabilities and addressing the challenges posed by air pollution in urban environments.

**Keywords:** Air Quality, Machine Learning, Time Series Forecasting, Air Pollution, Evaluation Metrics, Environmental Management.

## EVALUATION OF FACTORS EFFECTING POSTOPERATIVE MORTALITY IN FEMUR FRACTURES - RETROSPECTIVE STUDY

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### ABSTRACT

**Introduction and Purpose:** In this study, we aimed to retrospectively evaluate the factors affecting the mortality and morbidity of patients who underwent surgery for hip fracture.

**Materials and Methods:** After ethical approval was obtained, the medical data of patients who underwent surgery for hip fractures at Istanbul University Cerrahpaşa Medical Faculty Hospital between January 2000 and 2004 were retrospectively scanned. Demographic characteristics, surgery and anesthesia data, comorbidities and postoperative complications of the patients were recorded. Logistic regression was applied to determine the effect of parameters on mortality.

**Results:** 108 patients were included in the study. The average age of our patients is  $64.39 \pm 15.38$ . 87 (93%) of the cases were female and 21 (7%) were male. The most common diseases before the operation were hypertension, diabetes and rheumatoid arthritis. It was calculated as 1.7%, 7% and 40% for ASA 2, 3 and 4, respectively. We revealed that the most important factors determining mortality are advanced age and comorbidities before fracture. The most common complication was delirium in 34 patients. Other common causes were respiratory distress and wound infection. When the 6 death cases that occurred in the first 30 days after surgery were examined in our study, it was calculated as 2.7%-6% and 25% for the 7th, 8th and 9th decades, respectively. The 18-month mortality rate of the same patients was determined as 17%.

**Discussion and Conclusion:** The frequency and mortality of femur fractures increase with age. The increase in comorbidities and decrease in mobility in older ages are shown to be the most important reasons for this. In our study, we concluded that the presence and severity of comorbidities have an impact on effective mortality and that the chosen anesthesia method does not have a direct effect on postoperative mortality and morbidity.

**Key Words:** Femur Fracture, Postoperative, Complications, Mortality, Morbidity

## THERMAL MONITORING of SOLAR PANELS with Node-RED

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### ABSTRACT

**Introduction and Purpose:** Solar panels offer an ideal solution for converting solar energy into electricity. However, photovoltaic panel performance is significantly affected by ambient temperature. High temperatures reduce panel efficiency, diminishing energy generation and shortening photovoltaic panel lifespan. Therefore, monitoring solar panel temperature and taking necessary steps to maintain optimal performance is crucial. In this work, present a low-cost system that monitors solar panel and ambient temperature, transmits this data to the cloud, and presents it on a web interface using Node-RED and IoT. The system comprises sensors that measure solar panel surface temperature and ambient air temperature. This data is processed by an electronic circuit and transmitted to a cloud server. The system is developed using the open-source Node-RED platform. The system assists solar panel owners in optimizing panel performance and increasing energy generation with low-cost.

**Materials and Methods:** In this study proposes a system for monitoring solar panel thermal performance. The system utilizes smart sensors to capture temperature data from the panel's surface and its surroundings. A microcontroller then processes this raw data and converts it into a format compatible with the Node-RED platform. It is transferred to the Node-RED platform on the local network via the Wi-Fi module on the microcontroller. The data is further processed and visualized on a user-friendly interface accessible from various devices like computers, tablets, and smartphones. This dashboard provided by Node-RED allows for real-time monitoring and analysis of the thermal data, offering valuable insights into solar panel performance.

**Results:** Solar panel surface and air temperature values are monitored instantly. One of the most important features that distinguishes this study from other studies is that it is a low-cost monitoring system. There is no need to install any application or similar program to access the proposed monitoring system. Temperature data can be accessed from any device with an internet browser and internet access. This system, which operates as an open source code, can easily adapt to future developments.

**Discussion and Conclusion:** The aim of this paper is to design an inexpensive IoT-based data collection and processing system and solar panel and air temperature measurement system. Temperature data in the proposed system can be accessed from all devices with internet access (mobile phone, tablet, computer). It does not contain any application installation procedures for users. Thus, access to air quality data is provided very easily and cheaply. It is seen within the scope of this study that these temperature values can be monitored blindly with the help of the Node-RED dash board.

**Key Words:** PV; Solar Panel; IoT; Node-RED; Temperature; Low-cost Monitoring

## **STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS**

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### **Short Introduction:**

Drug repurposing is an alternative avenue for identifying new drugs to treat tuberculosis (TB). Although TB can be cured with anti-tubercular drugs, the emergence of multidrug-resistant and extensively drug-resistant strains of Mycobacterium tuberculosis H37Rv (Mtb), as well as the significant death toll globally, necessitate the development of effective drugs to treat TB.

### **Experiments and Key result findings:**

In this study, drug repurposing approach was employed to address this drug resistance problem by screening drugbank database to identify novel inhibitors of the Mtb target enzyme, DNA gyrase. The compounds were screened against the ATPase domain of gyrase B subunit (MtbGyrB47), and the docking results showed Echinacoside, Doxorubicin, Epirubicin, and Idarubicin possess high binding affinities against MtbGyrB47. Comprehensive assessment using fluorescence spectroscopy, SPR, and CD titration studies revealed that Echinacoside as a potent binder against MtbGyrB47. Further, ATPase, and DNA supercoiling assays exhibited IC<sub>50</sub> values of 2.1-4.7  $\mu$ M for Echinacoside, Doxorubicin, Epirubicin, and Idarubicin. Among these compounds, the least MIC<sub>90</sub> of 6.3  $\mu$ M and 12  $\mu$ M were observed for Epirubicin and Echinacoside, respectively. Hence, our findings indicate that Echinacoside and Epirubicin target mycobacterial DNA gyrase, inhibit its catalytic cycle, and retard mycobacterium growth. Further these compounds exhibits potential scaffolds for optimizing novel anti-mycobacterial agents that can act on drug-resistant strains.



## **BUILDING BRAND AWARENESS THROUGH TIKTOK: THE INFLUENCE OF CREATIVE AND INTERACTIVE CONTENT IN REACHING MILLENNIAL CONSUMERS**

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### **Abstract**

This research intends to explain efforts to strengthen brand awareness through the TikTok platform using creative and interactive content. The research method uses a quantitative research type with a multiple-approach approach, which includes case studies, consumer surveys, content analysis, literature studies, and participatory observation. Changes in the digital marketing landscape are triggered by the development of social media platforms, especially TikTok. With the emergence of TikTok as a popular platform among millennial consumers, it also creates new opportunities for brands to expand their reach and build brand awareness in innovative ways. However, despite its great potential, there is still little research investigating effective marketing strategies through the TikTok platform. This research explains how creative and interactive content strategies can help brands capture the attention of millennial consumers, who are one of the key demographics on TikTok. This can include the use of trends, challenges, collaborations with content creators, and other interactive features that allow for more direct interaction between brands and their audiences. Brand awareness is a very important element in any kind of business, including the knitting industry. It not only entices consumers to make purchases but also enables the creation of loyal customers. Consumers will be more likely to choose to buy products from brands that they easily recognize and trust. With a focus on building brand awareness, further explanation can illustrate how the use of creative and interactive content on TikTok can create an emotional bond with consumers, resulting in an increase in the number of followers and ultimately driving higher sales conversions.

**Keywords:** brand awareness, creative and interactive content, TikTok

## DELAMINATION INVESTIGATION AND OPTIMIZATION IN DRILLING OPERATIONS OF GLASS FIBRE REINFORCED PLASTICS (GFRP) COMPOSITES

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### ABSTRACT

**Introduction and Purpose:** The growing use of composites, particularly GFRP, can be attributed to their advantageous properties such as high specific strength, toughness, and dimensional stability. In industrial sectors like automotive, marine, and aerospace, GFRP composites are crucial due to their lightweight, high strength, and wear resistance. However, during the assembly process, drilling is a common machining technique that can result in delamination within the composite layers due to the thrust force and high temperatures generated. Delamination negatively impacts mechanical properties such as tensile, compressive, and fatigue strength. Therefore, it is essential to optimize delamination as a function of drilling parameters to ensure the high-quality and efficient production of industrial products based on GFRP composites. This study aims to optimize the delamination during the drilling process of GFRP composites, thereby enhancing the production quality and efficiency in various industrial applications.

**Materials and Methods:** The parameters that were selected for optimization were combinations of spindle speed, feed rate, and drill diameter. An analysis of the effect of cutting temperature on delamination was performed using a thermal camera, taking into account these parameter combinations. The experiments were conducted using a drill with varying drilling parameters, including spindle speed set at 62, 422, and 945 rpm, and feed rate set at 0.1, 0.18, and 0.24 mm/rev. Additionally, the experiments were conducted without the use of coolant. The diameter of the holes was measured using an optical microscope.

**Results:** The study demonstrates that modifying the tool diameter, rotational speed, and feed rate can have a substantial impact on delamination. For instance, using a 6 mm tool at 945 rpm with a feed rate of 0.1 mm/rev resulted in the lowest delamination for both inlet and outlet. Employing an 8 mm tool required a decrease in speed to 422 rpm, with varying feed rates at the inlet and outlet. In contrast, utilizing a 10 mm tool maintained the same speed for the inlet but increased the speed at the outlet. Hence, it is clear that the relationship between tool size, speed, and feed rate is intricate and must be carefully considered to minimize delamination.

**Discussion and Conclusion:** Optimizing drilling parameters is crucial for reducing delamination in GFRP composites, ensuring enhanced mechanical properties and production efficiency. The study highlights the significant impact of tool diameter, spindle speed, and feed rate on delamination. Results show that using a smaller tool diameter at higher rotational speeds and lower feed rates minimizes delamination.

**Keywords:** Glass Fibre Reinforced Plastics (GFRP), Delamination, Drilling, Defense industry.

**Acknowledgment:** We gratefully acknowledge the support provided by the TÜBİTAK 2209-B program for funding this study.

## **READING URBAN CHANGE THROUGH THE ADAPTIVE CYCLE UNDER THE INFLUENCE OF SOCIO-ECONOMIC DETERMINANTS: BURSA-ÇEKİRGE**

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### **ABSTRACT**

**Introduction and Purpose:** Cities are living, dynamic systems composed of many components. Many socio-economic, cultural, political, and physical factors are determining factors in the spatial formations of cities and urban sections. In order to understand the cities that are constantly changing with fast living conditions today, it is necessary to read the change from a holistic perspective. The purpose of this study is to read the urban change using the adaptive cycle theory, which is also one of the reading methods of ecosystem change, and thus to understand the city's capacity to adapt to change to guide the making of accurate predictions about the present and future of the city.

**Materials and Methods:** The change of Çekirge District and its surroundings, which is the first qualified residential area produced for the upper income group of Bursa, will be examined through the adaptive cycle theory developed by Holling and Gunderson under the growth, protection, release, and rearrangement phases. Literature research about Bursa will be used in determining the forces, stresses, and shocks that cause these phases, and for the spatial results, architectural license information obtained from the municipality and on-site observation and examination will be used.

**Findings:** The residential area in Çekirge District has completed the first adaptive cycle and realized all phases. Especially in the transition from the conservation phase to the release phase, creative destruction was encountered, and a transition was made from detached housing production to apartment building. Çekirge District is currently in the conservation phase of the second adaptive cycle. Despite the stresses created by the system, it has shown the ability to adapt itself to the new situation with its dynamics and is still resistant to change.

**Discussion and Conclusion:** Socio-economic events are largely determinants of the space production of cities and directly shape cities and social life. Reading the change of cities through the adaptive cycle enables us to grasp the dynamics of the city from past to present and to determine its current phase and the capacity of this phase to adapt to change. It is thought that this holistic reading will enable accurate future predictions to be made in the city section and will have positive effects on city sustainability.

**Keywords:** Adaptive Cycle; Complex-adaptive systems; Spatial change; Socio-economic change

## **EXTRACTION AND IDENTIFICATION OF THE CHEMICAL CONSTITUENTS OF ESSENTIAL OILS AND AQUEOUS EXTRACTS FROM LAMIACEAE PLANTS**

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### **Abstract:**

This study aims to valorize the essential oils and aqueous extracts of two species from the Lamiaceae family by evaluating their chemical composition and antioxidant activity. The antioxidant activity of essential oils, obtained by hydrodistillation, and aqueous extracts, obtained by infusion, was assessed using three methods: the ferric reducing antioxidant power (FRAP) method, and the free radical scavenging tests using 2,2-diphenyl-1-picrylhydrazyl (DPPH) and 2,2'-azino-bis 3-ethylbenzothiazoline-6-sulfonic acid (ABTS). Additionally, phytochemical assays for total polyphenols, flavonoids, and tannins were conducted for the aqueous extracts, while gas chromatography-mass spectrometry (GC/MS) analysis was performed for the essential oils. The results revealed that the aqueous extracts exhibited potent abilities in reducing ferric ion (Fe<sup>3+</sup>) and neutralizing DPPH and ABTS free radicals. The quantification of phenolic compounds showed significant levels of polyphenols with appreciable amounts of flavonoids and tannins, which explains the strong antioxidant power of the aqueous extracts from both Lamiaceae family species. However, further study is necessary to identify the specific compounds responsible for this antioxidant activity.

**Keywords:** Essential oils; Lamiaceae, Antioxidant activity, Hydrodistillation, Infusion.

## ANALYSIS OF USER TYPE ON TOUCH SURFACES AND DETERMINATION OF TOUCH SENSITIVITY ACCORDING TO USER TYPE

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### ABSTRACT

**Introduction and Purpose:** Biometric data is a type of data that defined as person-specific and unchanging characteristics. These characteristics of a person can be physical (fingerprints, palm prints, face, iris, retina, ears, hand veins, body odor or DNA information) or behavioral (voice, gait, signature, etc.). Physical features are personal; identification and verification of the authentication can be done with one or more of them. Soft biometric data, on the other hand, representing more general characteristics of the person such as height, weight, eye color, hair color, hair density, ethnicity and race. This study aims to eliminate the need for people to share their unique biometric data for low-security authentication when using their devices.

**Materials and Methods:** Soft biometric data such as the touch style and touch characteristics of the person using a touch surface (mobile phone) and the bioimpedance measured with the help of a circuit integrated into the mobile phone are used in this study. 160 volunteers (80 men, 80 women) aged between 10 and 65 have been asked to make 4 different drawings (clockwise and counterclockwise circle drawing, clockwise and counterclockwise triangle drawing) and 4 different swipe movements (swiping left and right, swiping down and up) repeating processes 15 times, and simultaneously, the volunteers' bioimpedance measurements were made by touching the metal copper bands connected to the circuit mounted on the phone case. The obtained data were analyzed with machine learning methods (K-NN, SVM, Linear Regression) and the age range and gender of the people were determined.

**Results:** The profile created by this classification can be used for authentication by comparing it with registered users. Additionally, depending on the specified age range, the use of the device may be prevented or access to some applications can be restricted.

**Key Words:** Soft Biometrics; Bioimpedance; Machine Learning; Authentication.

## INVESTIGATION OF THE LEAD TYPES THAT CONNECTING ELECTRONIC COMPONENTS TO PRINTED CIRCUIT BOARDS USED IN AUTOMOTIVE LIGHTING SYSTEMS IN TERMS OF MECHANICAL PERSPECTIVE

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### ABSTRACT

**Introduction and Purpose:** Printed circuit boards (PCBs) may vary in terms of the electronic components (transistor, integrated circuit, etc.) and types of leads that connect electric components to PCBs depending on the use. It is very important to choose the lead type at concept PCB design stage considering certain test scenarios. Vibration loading can cause damage to leads and this situation may fail the PCB. In this study, a finite element (FE) model of PCB and electronic components used on it was created and correlated with physical testing using the dynamic test scenario. Four different lead types were created to examine  $3\sigma$  stresses from random vibration analysis by using correlated FE model. As a result, comparison of four lead types were given according to FE results.

**Materials and Methods:** In the study, uniaxial tensile test of FR-4 was performed and anisotropic material properties were obtained. “Ansys Sherlock” software was used to create FE model of PCB and all components with it. Sine sweep test of PCB was carried out under same conditions in FE model and physical test. In the test, modal shaker was used and natural frequencies of PCB were extracted to correlate FE model. In correlated model, four different lead types were modeled separately and  $3\sigma$  stresses occurring for each leads were investigated.

**Results:** It was found that there was maximum deviation of 3.8% on a frequency basis between analysis and physical test when sine sweep results were examined. When lead types were examined, it was seen that “Gullwing” and “Stub” types had better results in terms of  $3\sigma$  stresses for transistor while “Gullwing” and “Thruhole” types had better results for integrated circuit. As a result, it has been observed that “Gullwing” lead type gives the best results based on  $3\sigma$  stresses.

**Discussion and Conclusion:** This study provides information about selection of leads at PCB concept design stage. It compares most commonly used lead types in industry from a mechanical perspective.

**Key Words:** Printed Circuit Board (PCB); Leads; Microelectronics; Sine Sweep; Random Vibration Analysis; Sherlock; Automotive Lighting.

## UNDERSTANDING THE IMPACT OF INORGANIC FILLERS ON SOUND TRANSMISSION LOSS OF POLYPROPYLENE-COATED NONWOVEN POLYMER COMPOSITES

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### ABSTRACT

**Introduction and Purpose:** Effective soundproofing is essential for composite materials to perform reliably across a range of environments and applications. Insulation can be achieved through a sound transmission loss mechanism. The sound transmission loss can be altered using fillers in polymer coating formulation. The inorganic fillers are preferred due to their abundance and relatively lower prices. This study evaluated the sound transmission loss effectiveness of inorganic filler containing polypropylene extrusion-coated on needle-punched polyester nonwoven fabric. The impact of using different ratios of various inorganic fillers was determined in this work.

**Materials and Methods:** Inorganic fillers of calcite, barite, talc, pumice, and dolomite were added to the polypropylene matrix with various ratios using a twin-screw extruder during the trials. The sound transmission loss measurements were performed using an impedance tube with the standard of ASTM E2611.

**Results:** The results indicated the inorganic fillers increased the dB values of sound transmission loss, and the different ratios of these inorganic fillers drastically affected the sound transmission loss dB values.

**Discussion and Conclusion:** The study reveals the substantial influence of inorganic fillers on enhancing sound transmission loss (STL) in polypropylene-coated needle-punched polyester nonwovens. Incorporation of fillers such as calcite, barite, talc, pumice, and dolomite resulted in increased STL dB values, showcasing varying impacts dependent on filler type and ratio. These findings underscore the potential for optimizing sound insulation through precise filler compositions.

**Key Words:** Needle-punched nonwovens; extrusion coating; inorganic fillers; sound insulation; sound transmission loss.



## THE ROLE OF JOB MEANINGFULNESS IN THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND INTENTION TO LEAVE

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### ABSTRACT

Leadership has existed since the first organized periods of humanity and has been defined and applied in different ways throughout history. The idea of transformational leadership (TL), first put forward by James M. Burns (Burns, 1978), is defined as a leadership style that enables leaders to achieve organizational goals by motivating employees with their visionary and inspiring characteristics. (Bass and Avolio, 1990) It is widely accepted that employees in organizations with TLs have higher performance, are more motivated, and are more committed to their organizations.

The second concept of the research, intention to leave, refers to employees' conscious and intentional decision to leave the organization they work for. It is observed that the intention to leave is exceptionally high in sectors with little incentive, long working hours, lack of career development, work-family conflict, high levels of emotional labor, and heavy workloads (Nazarian et al., 2022).

The last concept of the research, the job's meaningfulness, refers to the situation when the employee feels essential and understands that they are positively valued. Different studies state that factors such as employees' values, personality traits, motivations, and beliefs, as well as organizational issues such as job design, interpersonal relationships between colleagues, and organizational culture, tend to contribute to a person's perception of the meaningfulness of job (Panda, Sinha, & Jain, 2022).

The research suggests that TL behaviors are related to employees' intention to leave, and in this relationship, the intention to leave will decrease, especially for employees who find their jobs meaningful. The research proposal offers a different perspective to the literature on the effect of job meaningfulness on the relationship between TL and intention to leave.

The research model proposal developed in this context is as follows:

Proposition 1: It is suggested that there is a negative relationship between TL and the intention to leave.

Proposition 2: Job meaningfulness will have a role in the relationship between TL and the intention to leave.

**Key words:** Transformational Leadership, Intention to Leave, Job Meaningfulness

## PERCEPTIONS OF PRE-SERVICE SCIENCE TEACHERS ABOUT FLIPPED LEARNING

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### ABSTRACT

**Introduction and Purpose:** Today, the needs of society are changing with the increase in the place of technology in our lives in the world. One of the cornerstones of responding to the needs of this change is education. One of these constructivist approaches, which includes an active learning process integrated with technology in which the individual is at the center, is blended learning. Flipped learning is an extension of blended learning. The study aims to determine the perceptions of pre-service science teachers about flipped learning.

**Materials and Methods:** A survey, one of the quantitative research designs, was used for the study. The sample of the study consisted of 155 pre-service science teachers studying at the Faculty of Education of a state university in the Central Anatolia Region. The sample was determined by cluster sampling from random samples. A flipped learning perception scale was used as a data collection tool. The data were analyzed with descriptive analysis using SPSS 25.

**Results:** The findings of the study reveal the perception levels of pre-service teachers according to gender and grade level. **Discussion and Conclusion:** The results revealed that there was a statistically significant difference in the perceptions of pre-service teachers in favor of males and fourth graders. There are studies parallel to these results in the literature. Based on the findings and limitations of the study, recommendations are presented.

**Key Words:** Flipped learning; Science; Perception

## CLAY BRICKS WASTE-BASED GEOPOLYMER FOAMS FOR THERMAL INSULATION IN BUILDING SECTOR

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### **Abstract:**

Thermal insulation materials find extensive applications in building construction; they protect the structure from heat loss to save energy and money. Nowadays, many attempts have been made to develop sustainable lightweight materials with reduced thermal conductivity and acceptable physical and mechanical properties in order to reduce the energy consumption in building sector. In this context, this study presents an experimental investigation into the properties of geopolymer foams prepared using metakaolin (MK) and red clay brick waste (RBW). Geopolymer foams were developed using the combined technique of saponification and peroxide decomposition. A series of mixes with varying contents of H<sub>2</sub>O<sub>2</sub> and olive oil was prepared to assess several properties, such as, water absorption, apparent density, compressive strength, and thermal conductivity. The experimental outputs reported that the content of the pore-forming agent and stabilizing agent had a significant influence on the porous structure and the performance of geopolymer foams. Therefore, there is great potential for using as geopolymer foams lightweight eco-friendly building materials.

**Keywords:** Geopolymer foams, Saponification, Peroxide, Thermal conductivity.

## **ENVISIONING INTERNATIONAL TRADE AND LOGISTICS FOR THE SUSTAINABLE DEVELOPMENT GOALS (SDGs): RESPONSIBLE PLANT, TREE, AND LIVESTOCK LOGISTICS FOR GREENING AND CONSERVING THE ENVIRONMENT**

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### **Abstract**

These days, creating, foreseeing, and painting the long-term evolution of the international trade and logistics for the Sustainable Development Goals (SDGs) represent a must for all worldwide responsible individuals, dedicated country leaders, visionary governmental officials, conscientious professionals, researchers, and scholars, self-reliant communities, and effective, efficient, and dependable entities. What is more, cleaning, greening, and conserving the environment has profound implications for the international trade and logistics of the countries all around the Globe, since this is a highly complex and demanding process that implicates several key aspects: (a) transforming the living environments for Sustainable Development (SD); (b) recreating artifacts, such as the space, lifestyle, and brand image, for a more environmentally and eco-friendly lives and businesses; and (c) focusing on truly meaningful things capable to support the environment, such as Reduce, Reuse, and Recycle, as promoted by the circular economy practices and principles (the 3R's), center on education, conserve water and energy, and choose solely sustainable initiatives. Furthermore, since there is a continuously growing importance of creating a more environmentally friendly supply chain, sustainable international trade and logistics is little by little becoming, on the one hand, an increasingly popular model and, on the other hand, a highly expected and more than necessary way of performing businesses in today's very competitive business environment. In this particular context, the paper focuses on shedding a new light on what sustainable international trade and logistics represent. In the same line, the study centers on describing the solutions capable to integrate sustainability into the supply chain and logistics of businesses at a wide level, while targeting more sustainable logistical practices and more refined future logistics strategies. In addition, the purpose of this paper is to tackle sustainable logistics best practices and benefits as well as the importance of sustainability in international trade, logistics, and transport, with a specific accent positioned on green logistics for a greener, healthier, happier, and safer future for all. The current study puts a great emphasis on the responsible plant, tree, and livestock logistics for greening and conserving the environment in order to be able to create a clear view of sustainable logistics and the way to achieve it, since it is fundamental to companies and to economic development. In this matter, this scientific work makes an in-depth analysis of several recently published documents by the Organization for Economic Co-operation and Development (OECD) that display valuable up-to-date data on the utmost importance of greening transport, the endless opportunities provided by the transport enabling sustainable economies, and the crucial and powerful guidelines towards environmentally sustainable transport, in order to show the most recent advances in moving towards the Environmentally Sustainable Transport (EST). In particular, this paper focuses on the vital role played by Turkey – as one of the 20 founding members of the OECD, signing the OECD Convention on the 14th December 1960, hence showing the full dedication to achieving the Organization's fundamental objectives.

**Keywords:** Environmentally Sustainable Transport (EST); Pleasant and Hygienic Urban Environment; Waste Management and Environmental Conservation; Sustainable International Trade; Sustainable Logistics; Responsible Plant, Tree and Livestock Logistics; Spillover Effect; Transfer Pricing Reporting Standards; Organization for Economic Co-operation and Development (OECD); Turkey.

**FRAMEWORKS FOR CUSTOMER RELATIONSHIP MANAGEMENT (CRM) AND COLLABORATIVE PLANNING, FORECASTING, AND REPLENISHMENT (CPFR) FOR THE SUSTAINABLE DEVELOPMENT GOALS (SDGS): ENVISIONING A QUALITY-ORIENTED MODEL IN TURKEY**

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**Abstract**

The United Nations (UN) Sustainable Development Goals (SDGs) provide clear targets for a better, happy, inclusive, resilient, and safe future for all, taking into account that sustainability expectations are continuously raising, while the progress ought to be straightforward. First of all, these days' consumers await communities, governments, businesses, and organizations to lead on sustainability, relying on the holistic goals of equality, unification, well-being, and prosperity. Second of all, companies look ahead to create development strategies to embed sustainability alongside with other important aims on which their very existence depends on, such as: competitiveness, competitive advantages, creativity, development, efficacy, efficiency, innovation, intellectual capital, knowledge, research, performance, and profitability. But how can businesses cope today with the present changes and challenges imposed by the SDGs – in terms of collaboration, measurement, partnerships, progress, and scale, given the fact that the scope of these objectives is not specifically tailored for the businesses administration and the business environment? Given the aforementioned ideas, the paper targets the following crucial aspects: (a) firstly, creating the general background meant to shed a new light on the importance of prioritizing the sustainability goals, in times in which there are unprecedented disruptions capable of leading to deprioritizing the Global Goals (GG), namely the increasing consumer austerity, the rising prices, and the economic, financial, and geopolitical shocks; (b) secondly, highlighting the solutions centered on the achievement of the 17 SDGs and the 169 individual targets depending on their own dedicated performance metric systems; and (c) thirdly, tackling the importance and the role of the frameworks for Customer Relationship Management (CRM) and Collaborative Planning, Forecasting, and Replenishment (CPFR), having in mind sustainability priorities. The practical approach of this current scientific paper relies on envisioning a Quality-Oriented Model in Turkey, aimed at enhancing supply chain efficiency and integration, characterized by coordinated activities and joint practices throughout the supply chain. In this way, the study is able to provide an in-depth and an up-to-date very promising analysis on the development of customized strategies able to depict customers' demands, the CRM Software market growth projections in Turkey, and the pivotal place of Turkey in the business world.

**Keywords:** United Nations (UN) Sustainable Development Goals (SDGs); Holistic Goals;

## **A QUALITATIVE STUDY ON THE USE OF DIGITAL TECHNOLOGICAL TRANSFORMATION IN HUMAN RESOURCES AND RECRUITMENT PROCESSES**

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### **ABSTRACT**

This study aims to understand the digital transformation processes carried out by companies in their human resources departments and the practical implications of these processes in today's rapidly digitizing business world. In-depth interviews with 11 senior white-collar employees who work at least at the managerial level and have witnessed the digital transformation process in various companies in Turkey constitute an essential data source for the research. The qualitative research methods used in this study allow us to understand the participants' experiences in detail. Analyses conducted through the MAXQDA program helped us better understand the challenges, opportunities, and changes encountered by the participants in the digital transformation process. The findings highlight how these experiences vary according to sectoral and demographic factors and emphasize the role of digital technologies in recruitment processes. The study's results will help us understand the success factors and challenges in developing and implementing companies' digital transformation strategies. Additionally, these findings will provide human resources managers and other relevant stakeholders with essential insights into the benefits and risks of integrating digital technologies into recruitment processes.

In recent years, digital transformation has been implemented in many sectors and companies in human resources processes. In this research, which examines the effects of the transformation on processes, employees, and stakeholders, the interview technique based on qualitative research methods was used. Qualitative research methods are a technique that aims to reveal the meanings attributed by individuals and groups to stories, experiences, and discourses (Çelik & Kıvrak, 2023). Using material practices, qualitative methods containing a situated activity determine the observer's position. Field notes, researcher diaries, photographs, observation, interviews, and interview recordings constitute these methods (Yıldırım & Şimşek, 2011). Their studies on the interview technique (Cohen, Manion & Morrison, 2007) defined the interview action as a controlled and purposeful verbal communication form and research technique. In another study, the interview technique was defined as systematically learning, understanding, and describing the thoughts and feelings of the target source regarding experiences (Kvale, 1996). The purpose of the interview technique is not to test a hypothesis but to reveal personal experiences and how these experiences are interpreted (Türnüklü, 2000). Interviews were analyzed using the MAXQDA 2024 application with qualitative research methods, code patterns were extracted, positive and negative codes were grouped, and findings were prepared according to the intensities of these codes.

**Key Words:** Digital Transformation, Human Resource Processes, Recruitment

## **THE DYNAMICS OF THE SHIPBUILDING INDUSTRY IN BATANG, CENTRAL JAVA**

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### **Abstract**

The decline in shipyard industry activity represents a significant economic challenge in numerous regions, including rural communities such as Klidang Lor in Batang Regency. This research project aims to investigate the impact of the aforementioned decline on the socio-economic conditions of the Klidang Lor village community. The research method employs a descriptive-qualitative approach, with data collection conducted through a combination of literature study and direct observation. The results of the analysis indicate that the decline in shipyard industry activities has led to an increase in unemployment rates, a decrease in income, and changes in the social structure of the community. These findings highlight the necessity for appropriate and effective interventions to support local economic recovery and improve the welfare of affected village communities. In light of the findings and recommendations presented in this study, it is hoped that further efforts can be made to enhance our comprehension of the consequences of the decline in shipyard industry activity on village communities and to develop more efficacious solutions to support local economic development and the welfare of affected village communities.

**Keywords :** Dynamics, Shipbuilding Industry, Social And Economic Conditions.

**SYNTHESIS AND CHARACTERIZATIONS OF MNTIO<sub>3</sub> PHOTOCATALYST FOR THE DEGRADATION OF RHODAMINE B DYE IN AQUEOUS SOLUTION**

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**Abstract**

The Sol-gel synthesis of nanoparticles is known as an environmentally friendly and cost-effective alternative of toxic chemical methods. Due to potential use in photocatalytic and antibacterial activity MnTiO<sub>3</sub> nanoparticles synthesize by using the Sol-gel technique which offers numerous advantages over other synthesis methods. In Sol-gel method, Mn(NO<sub>3</sub>)<sub>2</sub>.4H<sub>2</sub>O was added in the 100 ml of distilled water and stirrer the solution and slowly added the (Ti[OCH(CH<sub>3</sub>)<sub>2</sub>]<sub>4</sub>) dropwise, immediately white precipitate of titanium were formed. Then acetic acid was added in the mixture dropwise. Finally, nitric acid was added in the solution and stirrer the solution. Then we slowly increase the temperature and dried at 90 °C for 8 hours and pale-yellow color of MnTiO<sub>3</sub> nanoparticle produced. Fourier transform infrared (FTIR) technique confirmed the presence of the bonding of the metal oxygen in the final prepared samples. X-Ray Diffraction (XRD) confirmed that all the nanoparticles have the rhombohedral structure and average crystal size of three sample was 10.94 nm, 21.37 nm and 24.6 nm respectively. The emission of the strong peaks was confirmed the PL spectrum and it is present in the UV to vis region of all samples. The bandgap of the MTO<sub>1</sub> was 2.49 eV, MTO<sub>2</sub> was 2.36 eV and MTO<sub>3</sub> was 2.24 eV was confirmed by the UV-visible Spectroscopy. UV-visible Spectroscopy was employed to check the photocatalytic performance and degradation of the Rhodamine B dye from water solutions. The results showed that these nanoparticles have the high ability to be used as the photocatalyst and can be used to remove Rhodamine B from the water. The efficiency of photocatalyst MTO<sub>1</sub>, MTO<sub>2</sub> and MTO<sub>3</sub> for the degradation of Rhodamine B dye was 86%, 88% and 72%. It was discovered that the decomposition of the RhB dye fitted a pseudo-first-order kinetics model. The newly prepared MnTiO<sub>3</sub> would be used in many numbers of applications such as biosensor, textile industry, optical devices, incubators the human cells, solar cells, electroplating.



## **EFFECTS OF VAGUS NERVE STIMULATION ON THE PARASYMPATHIC SYSTEM**

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### **ABSTRACT**

The vagus nerve is an important component of the autonomic nervous system, has an important role in the regulation of metabolic homeostasis and plays a key role in the neuro-endocrine-immune axis in maintaining homeostasis through its afferent and efferent pathways. Approximately 75 percent of all parasympathetic fibers travel within the VS (10th cranial nerve) and are distributed to all chest and abdominal regions of the body. Therefore, VS is the main nerve of the parasympathetic autonomic nervous system. With the effect of parasympathetic stimulation, effects such as constriction in the eye pupil and ciliary muscles, decrease in the contraction force and speed of the heart muscle, stimulation of abundant secretion in the glands, dilatation in the coronary vessels, constriction in the lung bronchi, increase in intestinal peristalsis and tone, contraction in the bladder detrusor muscle and relaxation in the trigone muscle occur.

Vagus Nerve Stimulation (VSS) in physiotherapy and rehabilitation practices; It includes electrical or manual stimulation applications. Electrical stimulation of vagal stimulation is achieved through electrodes placed in the ear or neck areas. Manual VSS includes practices such as physiotherapy, craniosacral, manual therapy and neck massage.

People with a stronger vagus response are more likely to recover faster after stress, injury, or illness. Therefore, it is important to ensure the body's homeostasis with effective and practical methods through vagus stimulation. Due to the wide innervation network of the vagus nerve and its role in the periphery, it can be used for many diseases and symptoms, especially neurological diseases. This paper examines the role of the effects of Vagus nerve stimulation (VSS) on the parasympathetic system in physiotherapy and rehabilitation practice.

**Key Words:** Vagus Nerve, Vagus Nerve Stimulation, Parasympathetic System

## ACUTE EFFECTS OF AEROBIC EXERCISE ON COGNITIVE FUNCTIONS IN PATIENTS WITH CHRONIC STROKE

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### ABSTRACT

**Introduction and Purpose:** The aim of this study is to examine the acute effects of aerobic exercise on cognitive functions in patients with chronic stroke

**Materials and Methods:** A total of 32 individuals diagnosed with stroke in the chronic phase participated in the study. Participants were divided into two groups: the study group, with a mean age of  $54.93 \pm 3.46$  years (n=16), and the control group, with a mean age of  $52.81 \pm 4.08$  years (n=16). Individuals scoring 18 and above on the Standardized Mini-Mental Test in both groups were included. All measurements were conducted by the same physiotherapist. Cognitive evaluation included the Standardized Mini-Mental Test, Stroop Test T-BAG form, Wechsler Digit Scale sub-parameter, and Letter Marking Test. The stroke individuals in the study group underwent 30 minutes of moderate-intensity bicycle ergometry, while those in the control group were placed in a quiet room for the same duration. Pulse, saturation, blood pressure, Stroop Test T-BAG Form, Wechsler Digit Index Tests, and Letter Marking Tests were repeated in both groups after 30 minutes.

**Results:** In the study group, significant differences were observed in Stroop Sections 1 through 5, as well as in Wechsler Plain Number Sequence, Wechsler Inverse Number Sequence, and Letter Marking Test ( $p < 0.05$ ). No significant differences were found in the control group after resting for 30 minutes. These findings suggest that aerobic exercise acutely impacts cognition in individuals with chronic stroke.

**Discussion and Conclusion:** The results obtained from our study showed that aerobic exercise increased cognitive functions in patients with chronic stroke. The fact that aerobic exercise affects cognitive functions even in a short time shows that it should be included in the process when creating a stroke rehabilitation plan, unless there is a contraindication in the patients.

**Key Words:** Chronic stroke, acute aerobic exercise, cognitive function

## **MATERIAL PLATFORM FOR INTEGRATED QUANTUM LIGHT SOURCES**

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On-chip integration of quantum optical systems could be a major factor enabling photonic quantum technologies. The development of an alternate quantum material in form of specific molecules will serve the quantum technology community in knowing and exploiting this alternative approach. The proposed technology has a highly innovative character and its impact can be foreseen in all technologies where the generation of single photons and entangled photon pairs is essential. Moreover, a new class of materials for photon generation that is alternative to the widely used quantum dots-based materials can be directly used also with the existing commercial solutions in this domain.

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## **GOVERNMENT GROSS DEBTS IN TURKEY AND EVALUATING DEBTS EXPECTED BASED ON MACROECONOMIC PROJECTIONS**

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### **ABSTRACT**

This study aims to express current and future predictions of the impact values of central government budget balances based on macroeconomic trends, especially regarding handling Turkey's central government debt burden on a gross basis. Especially when the public debt burden in Turkey is considered at a gross level, recent developments and its relationship with macroeconomic policies are in a remarkable trend relationship. This situation also raises the question of to what extent changes and possible expectations regarding the future of the public debt burden will reveal the integrity of the relationship with macroeconomic predictions and create variability. On the other hand, this relationship between the gross debt burden means questioning how target balance deviations in some financial groups are shaped according to future expectations, especially during the last inflation period, and at what values the structural changes in Turkey will exist in the long term. It is a term related to macroeconomic expectations based on the capital market. The projective position of the financial structure and macroeconomic relations in Turkey regarding inflation expectations has brought significant deviations to the agenda that can be expressed with different values in the recent period regarding some financial sector balances. This issue also means questioning how the impact of the Central Bank's current policies on the current account deficit level, especially on financial projections and asset values, will effectively affect the growth limits and expectations of the economic structure and public debt burden in Turkey. It also prioritizes demonstrating that the real economy can be evaluated in the years after 2020. Factors such as the Central Bank's future assessments in Turkey and the bond market's inflation expectations are meaningful evaluation points for prejunctional macroeconomic variables.

**Key Words:** Debt Sustainability, Domestic Risks, Government Gross Debts, Macro-financial Values, Macroeconomic Projections.

**JEL Codes:** E60, E62, E63.

**ABSTRACT**

**Introduction and Purpose:** The degree of economic freedom determines how hard people work, produce, spend and invest their capital. In a country with more freedom, individuals will be more willing to take initiative and invest. Therefore, it is important to what extent countries provide economic freedom to their citizens. In this context, the aim of this study is to evaluate the economic freedom of G7 countries by using CRITIC (Criteria Importance Through Intercriteria Correlation) and MULTIMOORA (Multi-Objective Optimization on the Basis of Ratio Analysis) methods, which are Multi-Criteria Decision Making (MCDM) methods.

**Materials and Methods:** The Economic Freedom Index, which measures the economic freedom of countries, is announced every year in a report prepared by the Heritage Foundation. The data used in this study was obtained from the most recent report published by the Heritage Foundation for 2023. The study used data from 2021, which was last announced in this report. The report includes five key criteria: Size of Government, Legal System and Property Rights, Sound Money, Freedom of International Trade and Regulation. Within the scope of the analysis, the criteria were first weighted using the CRITIC method. Then, G7 countries were ranked using the MULTIMOORA method in terms of their economic freedom and the results were evaluated.

**Results:** In line with the CRITIC method applied in the weighting of the criteria in the study, the criterion with the highest importance was the Legal System and Property Rights criterion. As a result of the analysis conducted with the MULTIMOORA method among the 7 countries included in the study, the USA was the best country in terms of economic freedom index, while Italy ranked last. The rankings obtained from the study were compared with the 2021 economic freedom rankings in the report, and it was determined that these rankings were largely consistent with each other.

**Keywords:** Economic Freedom; CRITIC Method; MULTIMOORA Method

## ALERT AT THE NATURAL WONDER UPPER DUDEN WATERFALL: SOLID WASTE POLLUTION

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### ABSTRACT

**Introduction and Purpose:** Considering recent technological advancements globally and the exponential rise in manufacturing, the surge in human-generated solid waste pollution poses a significant environmental challenge in our region. In this context, the study aims to assess the current status of solid waste pollution reaching alarming levels at the Upper Düden Waterfall, a natural wonder frequented by both local and foreign tourists.

**Materials and Methods:** In December 2023, solid waste sampling was conducted at four stations on the Upper Düden Waterfall of Trabzon, ranging in size from 5 m<sup>2</sup> to 10 m<sup>2</sup>. Solid waste concentrations were determined based on qualitative and quantitative observations. The solid wastes were classified into eight categories and forty-two subcategories according to Ospar 2010. Normality of the data was assessed using the Shapiro–Wilk test. Since the data did not follow a normal distribution, the Kruskal-Wallis and Mann-Whitney U tests were employed for station comparisons.

**Results:** The total solid waste in the research area was 3058 items/m<sup>2</sup> in number and 153.9 kg/m<sup>2</sup> in weight. Plastic and foam were the most abundant waste materials, comprising 40% to 90% of the total at all stations. The highest concentrations were found at station DA2, with 83.3 ± 1.67 items/m<sup>2</sup> numerically and 374.47 ± 34.34 kg/m<sup>2</sup> by weight. According to the Clean Coastal Index, all stations were categorized as extremely dirty.

**Discussion and Conclusion:** Although the high-density solid waste pollution identified at the Upper Duden Waterfall is attributed to river floods resulting from heavy rainfall in December, the tourism paradise, frequented by both local and foreign tourists, requires constant cleaning efforts by both the local municipality and businesses within the area.

**Key Words:** Düden Waterfall; Solid Waste; Clean Coastal Index; Pollution

## **INVESTMENT PORTFOLIO'S MANAGEMENT IN POST-CONFLICT ENVIRONMENTS: RISKS, CHALLENGES AND OPPORTUNITIES**

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Investment portfolio management involves the process of managing an individual or organization's investments, which may include different classes of assets. The goal of portfolio management is to maximize the returns on investment while minimizing risks, following the investor's preferences and goals.

Managing an investment portfolio in post-conflict environments assumes several challenges, which must carefully have evaluated by the investor to mitigate risks and address these challenges effectively. Additionally, post-conflict environments provide several opportunities for investors. A careful evaluation of these opportunities and consideration of the associated risks before making investment decisions is required. This paper investigates some important steps in portfolio management, as well as challenges and opportunities related to that issue. Individual Investors and managers must carefully evaluate challenges and risks such as security risk, political instability, economic instability, market risk, infrastructure and logistical challenges, legal and regulatory challenges, socio-economic risk in order to take measures to mitigate and address these challenges effectively. While investing in post-conflict environments presents several challenges, it also provides opportunities for investors. Some of the opportunities for investment portfolio management in post-conflict environments include: undervalued assets, high return potential, social and environmental impact, diversification, government support, emerging markets.

Overall, investing in post-conflict environments requires a long-term perspective, patience, and a commitment to social and environmental responsibility. By taking a responsible approach to invest, investors can make a positive impact on local communities and contribute to the economic development and stability of the post-conflict environment.

**Keywords:** investment portfolio, investment risk, investment climate.

## **THREE-DIMENSIONAL MODELING OF RADIOFREQUENCY ABLATION THERAPIES**

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Currently, the use of RFA has been well described as a primary or adjuvant treatment modality of limited but unresectable hepatocellular carcinoma, liver metastasis, especially colorectal cancer metastases, primary lung tumors, renal cell carcinoma, boney metastasis and osteoid osteomas. The role of RFA in the primary treatment of early stage breast cancer is still evolving. A challenging problem of radiofrequency ablation (RFA) in liver surgery is to accurately estimate the shapes and sizes of RFA lesions. The aim of this paper is to use computer modeling of the Bio-Heat equation to demonstrate factors influencing RF ablation tissue heating. Computer modeling demonstrates the importance of energy deposition, tumor and background tissue electrical and thermal conductivity, and perfusion on RF ablation outcomes.

**Keywords:** radiofrequency ablation, tumor configuration, finite element



## **JOURNEY TOWARDS PERSONALIZED MEDICINES AND RARE GENETIC DISEASES MANAGEMENT**

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### **Abstract**

This omics approach is particularly helpful since it identifies biomarkers of disease progression and treatment progress by collective characterization and quantification of pools of biological molecules within and among the various types of cells to better understand and categorize the Mendelian and non- Mendelian forms of rare diseases. Multiomics also described as integrative omics is an analysis approach that combines data from multiple 'omics' approaches including genomics, transcriptomics, proteomics, metabolomics, epigenomics, metagenomics and metatranscriptomics to answer the complex biological processes involved in rare genetic disorders. A range of omics software's used for multiomics data exploration and integration in rare disease analysis. Recent advances in the field of genetics and translational research has opened new treatment avenues for the patients. The innovation in the next generation sequencing and RNA sequencing has improved the ability from diagnostics to detection of molecular alterations like gene mutations in specific disease type. The thorough understanding of rare genetic disorders and its treatment at molecular level led to the concept of personalized medicines approach, which is one of the most significant advancements in modern research which enable researchers to better comprehend the flow of knowledge which underpins genetic disease.

**Keywords:** Genetic diseases, multiomics, personalized drugs, drug resistance, next generation sequencing

## **DYNAMICS OF INDONESIA'S ECONOMIC GROWTH IN 2023 AND PROJECTED CHALLENGES FOR 2024**

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**ABSTRACT:** 2023 will be a year full of challenges for the Indonesian economy. Economic growth slowed to 5.05 percent, slightly lower than the previous year which reached 5.31 percent. However, amidst the global economic storm and high inflation, Indonesia is still showing resilience. Indonesia's economic ship continues to sail, even though it is hit by waves of uncertainty. This article will explore the economic stage in the fourth quarter of 2023, delve into the economic growth projections that will begin the first quarter of 2024, break down the global economic obstacles that lie ahead in 2024, and respond to specific challenges involving Indonesia at the same stage. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. Indonesia's economic growth in the fourth quarter of 2023 reached 5.04 percent (year on year/yoy), slightly exceeding the government's projection of 5 percent. Meanwhile, investment grew 4.40 percent, supported by the realization of the infrastructure development program. It can be concluded that with appropriate strategies and tough and agile policies, the Indonesian economy is expected to be able to weather the storm of global and domestic challenges in 2024, and maintain the rate of economic growth firmly rooted in stability, quality and sustainability.

**Keywords:** Dynamics, Economic Growth, Projections

**BANK INDONESIA PROJECTS INDONESIA'S SHARIA ECONOMY TO GROW  
4.7-5.5 PERCENT IN 2024**

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**Abstrak**

Bank Indonesia (BI) projects that the sharia economy and finance in 2024 will grow by 4.7-5.5 percent year on year (yoy) supported by sharia banking financing which is predicted to grow in the range of 10-12 percent (yoy). In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. Can be concluded that BI is committed to continuing sharia economic and financial development policies to support economic growth through three main programs, namely the development of leading sectors, especially the halal food and beverage and Muslim fashion sectors. Then, strengthening sharia commercial and social finance, as well as developing the sharia money market, through Bank Indonesia Sukuk (SukBI) and Bank Indonesia Foreign Currency Sukuk (SuVBI) instruments. Furthermore, increasing literacy through holding the Sharia Economic Festival (Fesyar) in three regions of Indonesia including the Sumatra region, eastern Indonesia and Java and the Indonesia Sharia Economic Festival (ISEF) on an international scale as well as strengthening leadership in international fora. Indonesia's sharia economy and finance in 2023 will continue positive growth driven by the performance of the leading Halal Value Chain (HVC) sector which grew by 3.93 percent (yoy). Overall, the leading HVC sector supports almost 23 percent of the national economy, contributed respectively by the agriculture and halal food and beverage sectors, Muslim Friendly Tourism (PRM) and Muslim fashion.

**Keywords:** Economic Growth, Sharia Economy, Bank Indonesia

## UTILIZING ARTIFICIAL INTELLIGENCE (AI) APPLICATIONS FOR ENHANCING TEACHING AND LEARNING PRACTICES IN EDUCATION

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### **ABSTRACT**

To adapt to the ever-changing demands of education, teaching methods must be inventive and dynamic. Artificial intelligence (AI) is being used in education to assist with the processing of everyday tasks like learning and teaching. The purpose of the research is to look into the use of artificial intelligence (AI) in the classroom, particularly with regard to teaching and learning. Library research is used in this study. The study of the results reveals that artificial intelligence (AI) has been extensively used in a variety of educational software platforms, including: 1) Virtual Mentor; 2) Voice Assistant, such as Google Assistant (Google), Siri (Apple), and Cortana (Microsoft). 3) Content Intelligence, 4) Presentation Interpreter. 5) Online courses, such as those offered by Coursera, edX, Udemy, Google AI, Alison, Khan Academy, and MOOCs. 6) Automated Evaluation; 7) Tailored Education, such as Ruangguru, etc. 7) Learning games, 8) 8) The Intelligent Tutoring System (ITS), sometimes referred to as the ITS, also known as the Intelligent Tutoring System (ITS). The procedure of imitating human thought and building a machine to behave like a person is known as artificial intelligence, or AI. Teachers' tasks, including correction, attendance of students, daily evaluations and examinations, knowledge explanation, operational report preparation, and various other systematic labor, may be delegated to technological gadgets in the years to come as technology and science advance. In situations when robots cannot accomplish the task, educators can conserve extra energy and concentrate more on nonsystemic labor to produce an ideal generation with greater character and quality and natural intellect. Although the human mind, especially that of teachers delivers new information, technology only functions systematically and is automated in response to human orders. As a result, the instructor will have unparalleled intellect. The innovative minds of human biological intelligence also produced AI, which surfaced throughout the period known as the industrial revolution. Consequently, there will never be an even match between the two of these.

**Key Words:** Artificial Intelligence (AI), Education, Teaching and Learning

## **CARING A NEW NICHE: REJUVENATING ART EDUCATION IN NIGERIAN POLYTECHNICS THROUGH STRATEGIC CURRICULUM DELIVERY AND LEADERSHIP INNOVATIONS**

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### **Abstract:**

The landscape of art education in Nigerian polytechnics requires a transformative shift to address current challenges and harness emerging opportunities. This research embarks on a qualitative exploration aimed at rejuvenating art education through strategic curriculum delivery and leadership innovations within Nigerian polytechnics. The introduction sets the stage by acknowledging the dynamic nature of art education and the need for innovative approaches to ensure its relevance and effectiveness. The statement of the problem identifies key challenges such as outdated curricula, limited access to modern art tools and techniques, inadequate leadership structures, and a lack of synergy between academic institutions and industry demands. This study is anchored by the Transformative Learning Theory. This theory posits that meaningful learning occurs through critical reflection, challenging assumptions, and embracing change, all of which are essential for rejuvenating art education. The relevance of this study lies in its potential to revitalize art education by aligning curricula with contemporary artistic practices, fostering creativity and innovation, and empowering leadership to facilitate transformative change. Through qualitative research methods, including interviews, focus groups, and document analysis, insights are gathered from stakeholders including students, faculty members, administrators, industry professionals, and policymakers. Results and findings showcase innovative curriculum designs, modernized teaching methodologies, enhanced infrastructure, and effective leadership strategies that contribute to a more dynamic and relevant art education ecosystem. These initiatives promote student engagement, industry readiness, artistic excellence, and socio-economic impact. In conclusion, this research underscores the importance of strategic curriculum delivery and leadership innovations in revitalizing art education within Nigerian polytechnics. Recommendations include curriculum reforms, faculty development programs, industry collaborations, and leadership capacity-building initiatives to sustainably drive positive transformations in art education.

**Keywords:** Art Education, Curriculum Delivery, Leadership Innovations, Nigerian Polytechnics, Qualitative Research, Transformative Learning Theory.

## ENHANCING THE CURRICULUM DELIVERY IN DIGITAL PHOTOGRAPHY IN NIGERIAN POLYTECHNICS: SMARTPHONE PHOTOGRAPHY AS A VIABLE TOOL

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### Abstract:

Digital photography has become an integral part of contemporary art and communication, necessitating its inclusion in educational curricula. This study explores the potential of smartphone photography as a viable tool for enhancing curriculum delivery in Nigerian polytechnics, acknowledging the ubiquitous presence of smartphones and their evolving photographic capabilities. Despite the rapid advancements in smartphone technology and its widespread adoption, there is a gap in understanding how smartphone photography can be effectively integrated into the curriculum of Nigerian polytechnics. This research seeks to address this gap by examining the feasibility, challenges, and benefits of using smartphones for digital photography education. The study draws on the constructivist learning theory, which emphasizes active participation, experiential learning, and real-world applications. Additionally, concepts from educational technology and art pedagogy are integrated to provide a comprehensive framework for assessing the impact of smartphone photography on curriculum delivery. A qualitative research approach is employed, involving in-depth interviews with experienced educators, focus group discussions with students, and classroom observations. Data analysis is conducted using thematic analysis techniques to identify key themes, patterns, and insights related to smartphone photography in educational settings. The findings reveal that smartphone photography offers numerous advantages, including accessibility, affordability, versatility, and the potential for creative exploration. Educators and students alike express enthusiasm for integrating smartphones into photography courses, citing increased engagement, practical skills development, and exposure to contemporary trends. In conclusion, the study underscores the potential of smartphone photography as a valuable tool for enhancing curriculum delivery in Nigerian polytechnics. It recommends the development of tailored training programs for educators, the integration of smartphone photography assignments into coursework, and the establishment of collaborative platforms for sharing resources and best practices.

**Keywords:** Art Pedagogy, Digital Photography, Educational Technology, Experiential Learning, Smartphone Photography, Constructivist Learning Theory.

### Relevance of the Study to the United Nations SDGs

This study on enhancing digital photography curriculum delivery in Nigerian polytechnics aligns with the United Nations Sustainable Development Goals (SDGs), particularly Goal 4 (Quality Education) and Goal 9 (Industry, Innovation, and Infrastructure). It promotes inclusive and innovative education while harnessing technology for skill development and economic growth.



## EMPTY WALLS THAT BREATHE: STEM ACTIVITY

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### ABSTRACT

In today's age, with the development of technology, innovative developments have occurred in education. Various artificial intelligence applications have entered our lives. These developments have also been integrated into education. In 2018, the STEM (Science-Technology-Engineering-Mathematics) approach was added to the science curriculum. The STEM approach, which is a combination of science, technology, engineering and mathematics disciplines, aims to develop students with skills such as finding solutions to daily life problems, critical thinking, teamwork and creativity. It especially encourages students to gain 21st century skills and to be more interested in science and technology and to plan a career in these fields. In this study, an inquiry-based STEM activity was prepared. The name of the event is "empty walls that breathe". It is an activity plan at undergraduate level and aims to classify monocot and dicot plants related to the subject of plants and explain them by giving examples. As the first step in inquiry-based learning, a concept cartoon was prepared to arouse curiosity in students and the course was introduced. In the second step, guiding questions about the subject were asked to the students from the kahoot application. In the third step, students were given a problem situation in text form. As a solution to this problem, the students, divided into groups, were asked to design a vertical garden. Tinkercad application was introduced for them to use in their designs, and it was suggested that they make flowerpot designs with 3D printing. In the last step, students were asked to present their designs. My designs, which were first evaluated by other groups, were finally evaluated according to the rubric prepared by the teacher.

**Keywords:** STEM, event design, classification of plants



**AN ASSESSMENT OF INITIAL CHEMICAL AND PHYSICAL TESTS ON THE  
FRUIT OF RANDIA DUMETORUM LAMK**

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The aim of the present study to assess the physicochemical and early phytochemical analyses conducted on the fruit of *Randia dumetorum* belongs to the family Rubiaceae. It is distributed in both abandoned areas and dense forests throughout India. Various components of this plant are utilised in the treatment of various ailments. It has proven effectiveness in treating skin ailments, Anti-fungal, enhancing sexual desire, inducing vomiting, promoting bowel movements, relieving flatulence, and reducing fever. It has the ability to heal abscesses, ulcers, inflammation, wounds, tumours, and possesses antibacterial properties. Since there is a lack of comprehensive standardisation studies on the fruit of this plant, this study aims to assess the physicochemical parameters, preliminary phytochemical analysis, heavy metal content, pesticide residue, and aflatoxin levels in order to identify the drug in its dried form and prevent the adulteration of raw drugs.

**Keywords-** *Randia dumetorum*, Physiochemical, Analysis

## AN OVERVIEW OF NANOSTRUCTURED LIPID CARRIERS AS A DRUG DELIVERY PLATFORM

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### **Abstract:**

Nanostructured lipid carriers (NLCs) represent a novel generation of lipid-based drug delivery systems designed to overcome the limitations associated with poorly water-soluble drugs. These carriers offer a versatile platform for enhancing drug solubility, bioavailability, and therapeutic efficacy. Advantages of NLCs: Improved Drug Solubility: NLCs provide a lipid matrix that accommodates the incorporation of hydrophobic drugs, thereby enhancing their solubility and dissolution rates. Enhanced Bioavailability: The nanoscale size of NLCs facilitates increased drug absorption, leading to improved bioavailability compared to conventional formulations. Sustained Release: The lipid matrix in NLCs allows for controlled and sustained drug release, contributing to prolonged therapeutic effects and reduced dosing frequency. Biocompatibility: Lipid-based carriers are generally biocompatible and well-tolerated, minimizing the risk of adverse reactions. Challenges and Strategies: Physical Stability: Achieving and maintaining the physical stability of NLCs can be challenging. Strategies such as proper formulation design, surfactant selection, and optimization of processing parameters are essential to prevent aggregation or drug expulsion. Scalability: Scaling up the production of NLCs for commercial purposes requires addressing challenges related to reproducibility and cost-effectiveness. Continuous advancements in manufacturing techniques are crucial for overcoming these hurdles. In vivo Performance: Evaluating the in vivo performance of NLCs is critical. Factors like pharmacokinetics, tissue distribution, and safety profiles should be thoroughly investigated to ensure the efficacy and safety of the NLC formulation. Case Studies: Provide brief summaries of relevant studies or applications involving NLCs and the poorly water-soluble drug of interest. Highlight key findings, such as enhanced bioavailability, improved therapeutic outcomes, or novel formulations. Conclusion: Nanostructured lipid carriers have demonstrated considerable potential as effective carriers for poorly water-soluble drugs. Their ability to improve solubility, bioavailability, and sustained release makes them attractive candidates for drug delivery. However, ongoing research and development are essential to address challenges and optimize NLC formulations for broader clinical applications.

**Keywords:** Lipid-based carriers, NLCs, surfactant, cost-effectiveness, novel formulations.

**ANALYSIS OF URBAN MOBILITY PATTERNS USING YOLO V8: AN  
INNOVATIVE APPROACH FOR URBAN PLANNING AND TRAFFIC  
ANAGEMENT**

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**ABSTRACT**

Increasing urbanization and rapid technological advancements have led to an unprecedented increase in automobile traffic entering cities around the world. Understanding the complex dynamics of vehicles entering urban areas is crucial for effective urban planning, traffic management and sustainable development. This research presents an innovative approach using YOLO V8 to analyze the types and frequency of vehicles entering a city, to identify patterns and trends that can inform data-driven decision-making. Our methodology involves the deployment of YOLO V8, a state-of-the-art real-time object detection algorithm known for its accuracy and speed in identifying objects in images. Unlike previous versions, YOLO V8 incorporates advanced architectural enhancements, optimizing object detection performance in a diverse range of scenarios, including complex urban environments. The use of YOLO V8 enables the simultaneous detection of multiple vehicle types in high-resolution images, ensuring a holistic understanding of the urban mobility landscape. To perform this analysis, we use a multi-step process. Initially, we collect extensive datasets including high-resolution images of vehicles entering the city from different entry points. This diversity of datasets ensures the robustness of our analysis in different traffic conditions and scenarios. Then, YOLO V8 is trained on this dataset, refining its parameters to recognize and classify vehicles accurately. The algorithm is then applied to real-world data, capturing the types and frequencies of vehicles entering the city over a specified period of time. The novelty of our approach lies in the comprehensive examination of urban mobility patterns, taking into account both vehicle types and entry frequencies. By leveraging YOLO V8's capabilities, we can discern complex details within the urban traffic landscape, such as the prevalence of specific vehicle types during peak hours, the impact of special events on traffic composition and the emergence of new trends in urban transport. Additionally, the research explores the implications of the identified models on urban planning and traffic management. Understanding the dynamics of vehicle entry allows decision-makers to implement targeted interventions, optimize infrastructure and improve overall urban mobility. The findings of this research contribute to the development of smarter and more adaptive urban environments, promoting sustainability, efficiency and a better quality of life for city residents. In conclusion, this research leverages the power of YOLO V8 to conduct a detailed analysis of vehicle types and entry patterns in a city, providing valuable insights to urban planners and policy makers. The combination of advanced object detection techniques, diverse datasets, and a focus on both vehicle types and entry frequencies sets this study apart, providing a nuanced perspective on the complexities of urban mobility.

**Keywords:** Urbanization, Urban traffic, YOLO V8, Data analysis, Urban planning, Traffic management, Sustainable development.

## **SOME NOTES ON THE PRECURSOR FIGURE OF ACCOUNTING**

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### **ABSTRACT**

Luca Pacioli, an Italian Franciscan brother, maestro of the abacus (commercial mathematics), professor at several Italian universities, was the first author of a printed text on accounting. He has contributed to society in various fields such as art, architecture, mathematics, statistics, calligraphy and business, being considered an authentic Renaissance Man. His trajectory of life was marked by the notoriety of his book published in Venice in 1494, *Summa de Arithmetica, Geometria, Proportioni et Proportionalita* (Encyclopedia of Arithmetic, Geometry, Proportion and Proportionality), which in its content contains a small treatise, *Particularis de Computis et Scripturis* (About Accounts and Bookkeeping) which contributed to the dissemination of accounting. With the elaboration of this article, we intend to clarify and demonstrate the importance of Luca Pacioli for the accounting profession.

**Keywords:** Accounting. Accounting History. Accounting Books. Pacioli. Italy.

**AN INVITATION TO PORTUGUESE ACCOUNTING HISTORY: THE FIRST ACCOUNTING SCHOOL IN THE WORLD AND ITS TEACHERS AND STUDENTS**

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**Abstract:** The article aims to contribute to increasing knowledge associated with the History of Portuguese Accounting, particularly on the part of current professionals, teachers and students of Accounting in Higher Education. In these terms, the investigation seeks to answer three questions: (1) who is mainly responsible and what were his motivations for founding the first technical school of Accounting in Portugal and in the world?; (2) what are the real consequences and concrete impacts of establishing the pioneering Portuguese School of Accounting?; and (3) who were the first Accounting teachers and students in our country? Subsidiarily, critical considerations are also made around the absence, in the curricular program taught, of two specific areas of knowledge: Geography and Living Languages.

**Keywords:** Accounting; Teaching Accounting; History of Accounting; Portugal; Accounting Teachers and Students.

## INVESTIGATION OF EXPERIMENTAL GRADUATE THESIS ON PEER BULLYING AMONG SECONDARY SCHOOL STUDENTS

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### ABSTRACT

**Introduction and Purpose:** Bullying behavior, which has been increasing in schools in recent years, has harmful consequences for students in many aspects such as physical, psychological, social and academic in the short and long term. The purpose of this research is to reveal trends in the literature by examining experimental postgraduate theses on peer bullying among secondary school students. Within the scope of this purpose, 9 postgraduate theses published on peer bullying were accessed in the Council of Higher Education National Thesis Center Database.

**Materials and Methods:** Accordingly, descriptive analysis technique was used in this research, where the theses were examined in terms of content and form. The research findings obtained as a result of descriptive analysis were supported with graphics using frequency and percentage values.

**Results:** According to the findings of the research; It was observed that 6 of the postgraduate theses examined were at the master's level and 3 of them were at the doctoral level. When looking at the distribution of theses by years, it was seen that 1 of theses was produced in 2016, 3 in 2019, 2 in 2021, 1 in 2023 and the other 1 in 2024. When the theses are examined according to the scientific fields in which they were produced; It was observed that 4 of these were conducted in the Department of Educational Sciences, 3 in the Nursing Program, 1 in the Department of Psychology, and 1 in the Department of Turkish and Social Sciences.

**Discussion and Conclusion:** When the literature is examined, it has been determined that there are very few experimental studies in our country on peer bullying, which is increasing day by day among students in schools and whose consequences are devastating in many respects. It can be said that the evaluation of theses on peer bullying is important in terms of guiding researchers who will work in this field and contributing to the literature.

**Key Words:** Peer bullying, graduate theses, descriptive analysis.

## HAMMING DISTANCE MEASURES BASED ON BIPOLAR VALUED TYPE-2 FUZZY SETS

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### **ABSTRACT**

In this paper, bipolar valued type-2 fuzzy sets (BVT2FSs) are introduced by combining bipolar fuzzy sets [3, 4] and type-2 fuzzy sets [2] and we develop to some new measures by using together BVT2FS and Hamming measures. The presented operators are Bipolar valued Type-2 Fuzzy Hamming distance measures and weighted Hamming distance measures. Moreover, offered measures are applied over an investment example. The results show that our operators are reality, objective and agreement in its own.

**Keywords:** Type-2 fuzzy sets, Bipolar valued Type-2 fuzzy sets, hamming distance

## LAMINITIS IN FOALS

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### ABSTRACT

Foals are one of the most valuable and loyal animals in human history. They have been used by humans for various purposes such as transportation, agriculture, sports and entertainment for centuries. However, there are a number of diseases that threaten the health of these graceful creatures, and one of them is a condition known as laminitis. Laminitis is a serious foot disease characterized by inflammation and damage to the connective tissue called lamina on the soles of foals' feet. Laminitis is a condition that occurs when inflammation and damage occurs to the delicate tissues within the nail. In foals, it is usually caused by an impairment in blood flow to the hoof, which can lead to separation of the hoof wall from the underlying tissues. This may be due to a variety of factors, such as excessive weight loss, trauma, or metabolic disorders. Unlike adult horses, laminitis in foals can also result from sepsis or systemic infections. Symptoms of laminitis can vary from changes in the foal's general condition to signs on its feet and should be observed carefully. Primary symptoms include changes in the foal's gait. Laminitis usually presents with a marked change in the foal's normal gait pattern. Foals often begin to walk slowly and may shorten their stride or limp. In some cases, foals may not be able to walk and may avoid movement. Because laminitis often causes significant pain in the foal's feet, these symptoms should be observed carefully along with any changes in the foal's movements. Laminitis should be treated immediately by a veterinarian and a farrier as nail trimming is very important. Purpose of nail cutting; To ensure dorso-palmar/plantar and medio-lateral foot balance and to correct the nail bucking axis. Lowering the heels increases the tension on the profund tendon and the rotation of the foot bone.

**Key Words:** Foal, Laminitis, Diagnosis, Treatment



**EFFECTS OF DISASTERS ON MENTAL HEALTH, EXAMINING THE EFFECT OF FOCUS GROUP STUDY WITH YOUNG PEOPLE AFFECTED BY THE FEBRUARY 2023 EARTHQUAKE ON MENTAL HEALTH AND QUALITY OF LIFE**

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**ABSTRACT**

The 7.7 and 7.6 magnitude earthquakes that occurred on February 6, 2023 and affected 11 provinces caused many deaths. Many people from every population group, including children, elderly, disabled and adults, have been deeply affected economically, socially and psychologically.

Serious events in life, the traces of which cannot be erased, lead to the emergence of great fears, feelings of helplessness and powerlessness. It affects the emotions, thoughts and mental states of people who have experienced trauma for a long time. Such events are called “traumatic situation” or “trauma”. After trauma, a person suffers psychological and partly physical wounds. Physical wounds can be seen and treated by doctors. However, psychological wounds are invisible and therefore often untreated. It causes great pain to those who have experienced the trauma; This situation causes tension, pain, sleep disturbance, states of fear or depression, generally known as Post-Traumatic Stress Disorder.

It is thought that it is important to examine group interventions for PTSD both in the planning and implementation of prevention strategies and in meeting the need for psychological support for trauma victims. The purpose of this study; The aim is to provide information about traumatic experience and post-traumatic stress disorder, and to compile group intervention approaches applied to trauma victims and convey them in line with the relevant literature.

Group intervention is a form of therapeutic intervention that is used as a tool to solve the problems of the members of the group. When groups are structured in accordance with the purpose of the intervention and work well, they are considered one of the powerful methods used in reducing symptoms and experiencing change. In the paper, the effectiveness of the focus group study conducted with earthquake-affected students housed within the Ministry of Youth and Sports, and the results of the Beck Depression, Beck Anxiety, Beck Hopelessness, McGill and Malzack Pain Scales applied before and after the group study will be explained in detail.

**Keywords:** Earthquake, Mental Health, Trauma, PTSD, Depression, Group Work

## PHYTOPHARMACOLOGICAL STUDIES OF SOME INDIAN MEDICINAL PLANTS FOR ANTI-HYPERLIPIDEMIC ACTIVITY

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### ABSTRACT:

Hyperlipidemia is a condition characterized by elevated levels of lipids, such as cholesterol and triglycerides, in the blood, which is a major risk factor for cardiovascular diseases. Here are some examples of Indian medicinal plants that have been investigated for their anti-hyperlipidemic activity: **Allium Sativum (Garlic)**: Garlic has been traditionally used for various health benefits, including its potential to lower cholesterol levels. Allicin, a compound present which is present in garlic, believed to contribute to its anti-hyperlipidemic effects. **Trigonella Foenum-Graecum (Fenugreek)**: Fenugreek seeds have been studied for their cholesterol-lowering properties. The soluble fibre in fenugreek may help to reduce cholesterol absorption and improve lipid profiles. **Terminalia Arjuna (Arjuna)**: Arjuna bark extracts have been traditionally used for cardiovascular health. Research suggests that Arjuna may have lipid-lowering effects and can contribute to cardiovascular health. **Curcuma Longa (Turmeric)**: Curcumin, the active compound in turmeric, has anti-inflammatory and antioxidant properties. Studies have explored its potential to modulate lipid metabolism and reduce hyperlipidemia. **Cinnamomum Verum (Cinnamon)**: Cinnamon has been investigated for its potential to improve lipid profiles. Compounds in Cinnamon may help to reduce total cholesterol and Triglycerides levels. **Gymnema Sylvestre (Gurmar)**: Gymnemic acids found in Gymnema Sylvestre have been studied for their potential to reduce cholesterol and triglyceride levels. **Commiphora wightii (Indian Bdellium)**: Guggulsterones, the active compounds in Guggul, have been researched for their cholesterol-lowering effects. Guggul extracts may influence lipid metabolism and help lower cholesterol levels. **Aegle Marmelos (Bael)**: Bael extracts have been studied for their potential in managing hyperlipidemia and contributing to improving lipid profiles. **Emblica Officinalis (Indian Gooseberry or Amla)**: Amla is rich in antioxidants and has been investigated for its potential to reduce cholesterol levels. **Ocimum Sanctum (Holy Basil)**: Holy Basil extracts have been studied for their lipid-lowering effects and potential cardiovascular benefits. It's important to note that while these plants show promise in preclinical studies, further clinical trials are necessary to establish their efficacy and safety in humans. Additionally, individual responses to these herbal remedies can vary, and it's advisable to consult with healthcare professionals before incorporating them into a treatment plan, especially if one is already on medications or has pre-existing health conditions.

**KEYWORDS:** Lipid-lowering effects, antioxidants, Hyperlipidaemia, Cardiovascular, Anti Inflammatory.

## IMPROVEMENT CHARACTERIZATION OF CVD COATINGS FOR MACHINING APPLICATIONS

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### **Abstract:**

Chemical Vapor Deposition (CVD) coatings are widely used in machining applications due to their ability to withstand at high temperatures and exhibition desirable properties such as high hardness, wear resistance, and chemical stability. This paper investigates the significance of microstructure in determining the performance of CVD coatings applied to cemented carbide cutting tools. The microstructure, influenced by the C/(C + N) ratio, plays essential role in the coating's characteristics and performance during cutting operations.

Many studies have proved that the combination of elements like B or Si into the coating composition can enhance both hardness and microstructure, thereby improving cutting performance. The CVD process involves thermally-induced chemical reactions conducted at elevated temperatures in an atmosphere-controlled reactor. Thin-film coatings are formed through reactions between gaseous phases and the heated substrate surface. Different gases injected into the reactor lead to the formation of these thin film layers of the coatings. For instance, TiN and titanium carbide (TiC) are formed through specific chemical reactions involving precursor gases such as TiCl<sub>4</sub>, N<sub>2</sub>, CH<sub>4</sub>, and H<sub>2</sub>. The resulting coatings exhibit a hard, wear-resistant with strong bonds to the substrate. Understanding and optimizing the microstructure of CVD coatings offer a promising way for enhancing the performance and durability of cemented carbide cutting tools in machining applications. This current paper aims to extreme-understand of CVD coating technology and its applications in improving the efficiency and increase lifetime of cutting tools in machining processes.

**Keywords:** Chemical Vapor Deposition (CVD), microstructure optimization, cemented carbide cutting tools, wear resistance.

## GUARDING FUTURE GENERATIONS: THE POWER OF THE HPV VACCINE

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**Introduction:** The human papillomavirus (HPV) vaccine has emerged as a pivotal element in preventing HPV-related diseases, particularly cervical cancer. Despite the focus on vaccinating females aged 9-15, recent studies highlight the importance of including boys in vaccination programs. Screening tests complement vaccination efforts, especially in resource-limited settings where vaccine coverage remains a challenge.

**Purpose:** This abstract aims to review recent developments in HPV vaccination programs and screening tests, exploring their roles in reducing cervical cancer and HPV infections. It also examines the impact of recent discoveries on improving vaccine accessibility and acceptance, particularly among parents, and highlights the importance of well-informed public attitudes in enhancing vaccine uptake.

**Methodology:** A systematic literature review was conducted to analyze studies published within the past decade on HPV vaccination programs, screening tests, and public attitudes. Data were collected from academic databases and reputable sources, and inclusion criteria focused on studies relevant to HPV prevention efforts. Key themes and trends were identified through data synthesis and analysis.

**Results:** Findings indicate significant progress in HPV vaccination programs, with a shift towards targeting both females and males aged 9-15. Screening tests continue to play a crucial role in early detection and treatment. Recent discoveries, including the transition to two-dose protocols and the introduction of nonavalent HPV vaccines, show promise in improving vaccine accessibility and effectiveness. However, challenges remain in ensuring adequate resources and addressing parental attitudes towards vaccination.

**Key Words:** HPV vaccine, cervical cancer prevention, vaccination programs, screening tests, parental attitudes

## OVERVIEW OF ARONIA AND ARONIA CULTURE IN TURKEY

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### ABSTRACT

Selection and cultivation of plants with minor fruits that contain rich and beneficial content regarding consumer awareness due to the pandemic is becoming more common day by day. Aronia is called a super fruit in the world due to its rich antioxidant and biochemical content and their positive effects on health and has an important place in nutrition of people. Aronia has been dubbed a super fruit in the globe and is considered to have the highest antioxidant activity of any fruit, according to numerous research conducted on a variety of species. Although its inclusion in people's daily diets is underlined, it is also mentioned that some aspects of it lead to beneficial outcomes in animal nutrition.

In 2012, the Yalova Atatürk Horticulture Central Research Institute directorate began conducting investigations that led to the introduction of aronia horticulture in our nation. The Viking and Nero varieties have been registered with the Institute directorate since 2012. Demonstration plots were established and aronia, which was introduced at different meetings, was promoted on site. These introductions have significantly aided in the species' agricultural spread. The number of saplings generated by various institutions and private sector enterprises employing contemporary tissue culture techniques is steadily rising. These saplings are provided as raw material to universities and research and development organizations who wish to conduct research and development projects. The species is harvested in its second year, although its industrial industry is not yet fully developed. This kind of product, which adds value through processing into fruit juice, jam, marmalade, and baked goods, is expanding in both its product line and business. In this context, the cultivation and consumption of the Aronia plant, whose importance is understood more and more each day, is increasing in our country. Aronia, which has been registered with a geographical indication due to the increase in its cultivation and adoption by producers, has taken its place in our country's agriculture. However, since the plantations are still new, production is not reflected in the figures.

**Key Words:** Aronia melanocarpa, antioxidants, anthocyanin, adaptation

## SAN STEFANO TREATY AND THE BALKAN PEOPLES

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### **ABSTRACT**

On April 24, 1877, it was decided to declare war on the Ottoman Empire. After crossing the Balkan mountains, the Russian armies began to advance rapidly southwards without encountering any serious resistance from the Ottoman armies. They occupied Sofia on January 4, 1878, Edirne on January 18, and reached the village of San Stefano on the outskirts of Istanbul on January 28, and as a result, an armistice was signed between the Ottoman Empire and Russia on January 31. After the agreement on the cessation of hostilities, under the pressure of the Great Powers, the warring parties were forced to sit at the "peace table". The meeting between the Sublime Porte and the Russian delegations took place in Saint Stefan near Istanbul. The peace agreement, known as the Treaty of San Stefano, was signed on March 3, 1878, about a month after the armistice. This treaty, signed on March 3, 1878, was almost the end of the existence of the Ottoman Empire in European lands.

The Treaty of San Stefano was a turning point in Ottoman-Russian relations. Romania, Serbia and Montenegro completely left Ottoman rule and became independent states. The new principality, established under the name of the Principality of Great Bulgaria, divided the Ottoman lands in Europe into two. Although this principality was considered to be under Ottoman rule, Istanbul was also left under constant threat as it would be occupied by Russian soldiers for two years and under the de facto administration of a Russian commissar. The Ottoman Empire also agreed to consult with Russia regarding the reforms it would make in Crete, Thessaly and Albania, which was a flaw for its dominance as it meant accepting the intervention of a foreign state in its internal affairs. As for the importance of the treaty for Russia, it appears, first of all, as a great victory of the Slavic policy. The aim of Russian politics after the Treaty of Paris was based on either anatomy or autonomy in the Balkans. The Treaty of San Stefano realized Russia's ideal in both directions. Full implementation of the treaty would be the end of the Ottoman Empire, and even the small piece of land remaining to the Ottoman Empire would be under the control of the Russians.

**Key words:** Ottoman Empire, Ottoman-Russian War, Treaty of San Stefano, Balkans

## ON MAPS SATISFYING ENRICHED CONDITION $C_\gamma$

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### ABSTRACT

In this paper, we introduce the class of maps satisfying the enriched condition  $(C_\gamma)$ . We approximate fixed points of maps satisfying the enriched condition  $(C_\gamma)$  using a modified three-step F-iterative method in a Banach space.

**Key Words:** Condition  $(C_\gamma)$ ; Enriched maps; F-iterative methods; Banach spaces; Fixed points.

## INVESTIGATION OF THE DYNAMIC BEHAVIOR OF JACKET-TYPE PLATFORMS EXPOSED TO HYDRODYNAMIC FORCES USING REGRESSION ANALYSES

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### ABSTRACT

This study employs statistical regression technique to investigate the maximum displacement, stress of jacket type platforms exposed to hydrodynamic wave forces. Three platform models are designed using steel pipe profiles with diameters ranging from 300mm to 600mm. Wave parameters including wave height (H), wave period (T), and water depth (d) are selected as 5m, 11s, and 55m, respectively. Fluid particle velocity and acceleration values varying with time and depth are determined using the Stokes 2<sup>nd</sup> Order Wave Theory. The wave velocity and acceleration values are utilized in the Morison Equation to obtain the lateral hydrodynamic forces ( $F_H$ ). The values of the hydrodynamic forces, increasing from the seabed to the free water surface, are calculated at the nodes of the jacket-type platform using load balance. Computer aided Time History Analysis is used to simulate the dynamic behavior of structures subjected to time-varying loads. The geometry, material properties and supports are defined to create a finite element model. A time step size of 0.01s is set, with the analysis duration assumed to be 30s. The maximum displacement and stress values that may occur throughout the wave period are recorded for the braces, struts, and diagonal bars used in the platform models. A dataset is generated by taking the displacement and stress values, which are the determining parameters of resistance, as output, and examining the relationship between the input parameters accepted as diameter, wall thickness, and hydrodynamic force. The results have shown that the maximum stress and displacement values occur at the wave crest and trough positions for all platform models. Increasing the thickness of the profiles used in the platform elements increases the resistance and consequently reduces stress. However, the increase in diameter results in an increase in the hydrodynamic force due to the Morison equation, so the decrease in stress is not as significant as the difference observed in displacement values. Multiple Regression Analysis is used to derive the mathematical equations defining the relationships between inputs and outputs. The effects of independent variables on outputs are evaluated utilizing Analysis of Variance (ANOVA). Mean Absolute Error and Coefficient of Determination ( $R^2$ ) are established as performance evaluation criteria. Interpretations have been derived regarding how to design a structure to achieve higher resistance while minimizing the use of material.

**Key Words:** Jacket-Type Platform, Multiple Regression Analysis, Hydrodynamic force, ANOVA



## **ENERGY HARVESTING INVESTIGATION OF PIEZOELECTRIC NANOGENERATORS AND ITS POTENTIAL APPLICATION AS SMART MATERIALS IN THE NEAR FUTURE**

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### **Abstract**

The sophisticated wireless devices that permeate today's society demand a clean, sustainable power supply. PENGs (Piezoelectric nanogenerators) are quickly becoming a very popular, affordable, and simple to construct method of generating battery-free electronics. In the present study, nanoparticles are used as a crucial raw material for the production of this kind of autonomous device. Since piezoelectric materials can convert mechanical pressure applied to them into electrical signals and vice versa, they are frequently referred to as "smart" materials. They are widely used to transform mechanical energy which can be obtained from vibrations, motion, mechanical loads, etc. into electrical energy for low-power devices. Compared to triboelectric and electro-magnetic/static transducers, piezoelectric transduction provides high power densities, excellent scalability, and simple device designs. Novel materials are being produced and studied for their interaction with biological environments in response to the growing advancements in the fabrication and monitoring approaches of nanomaterials appliances. Particularly among them, smart materials offer adaptable and dynamically programmable platforms for the study and management of many biological processes in scarcely accessible anatomical regions with very little invasiveness. In this article we demonstrate methods to create a flexible, high-performance piezoelectric energy harvester exploiting superior, sustainable Ba Cu TiO<sub>3</sub> and CuTiO<sub>3</sub> (BCTCTBCCT)/ nanocomposites. A low temperature modified hydrothermal approach was used to create nanostructured CuTiO<sub>3</sub> and BaCuTiO<sub>3</sub> nanocomposite. The properties of the nanoparticles were assessed using Xray diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), UV-Vis spectrometer, and photoluminescence. The cubic spinel structure is verified by XRD analysis. To study the optical properties and morphology we have employed FESEM, EDS, TEM, and CV on BaCuTiO<sub>3</sub> and CuTiO<sub>3</sub> nanocomposite. A framework is required to observe the behavior in the time and frequency domain in order to maximize the utilization of piezoelectric devices in applications. The present research examines various aspects of piezoelectric modeling and additionally offers multiple circuits employed to optimize the energy obtained. Thus, piezoelectric nanodevice exhibits significant potential for portable electronics applications due to its tiny size, ease of production, great flexibility, and environmental friendliness.

**Keywords:** Piezoelectric devices, Spectrophotometer, X-ray diffraction, Fourier transform infrared spectroscopy (FTIR), Hydrothermal approach.

## **THE INFLUENCE OF GLASS POWDER ON THE BENDING OF A REINFORCED CONCRETE BEAM**

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### **ABSTRACT**

Reinforced concrete is the most used material globally, so it remains expensive because it requires several materials, such as sand, gravel, and binders. Among the binders, cement takes the majority. Cement, like a material, goes through several sides to be usable; the manufacture of cement causes much pollution and significant emission of CO<sub>2</sub>; for this reason, several researchers are looking for this necessary material in moderation, furthermore noting that there are research shows that a part of cement can be replaced up to 40% of cement, for this reason we will compare them between the two concretes, ordinary concrete and concrete based on glass powder in a rebar beam in simple bending, divided and composed.

The results show that concrete with glass powder can reduce cracking with steel reinforcements.

**Key Words:** Glass powder, Cement, CO<sub>2</sub>, Beam, Simple bending, divided and composed

## EFFECT OF VOLCANIC PARTICLE REINFORCEMENT ON THE ADHESION PERFORMANCE OF ALUMINUM JOINTS

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### ABSTRACT

**Introduction and Purpose:** In this study, the bonding method was used to join AA6061-T6 aluminum sheets. In order to increase the durability of epoxy adhesive and improve the mechanical properties of adhesive connections, volcanic particles were added to epoxy formulations in different weight ratios (0, 0.5, 0.75, 1, 2.5, 5) and adhesive connections were made. In this way, it is aimed to strengthen the cohesion forces in the epoxy and at the same time increase the adhesion force of the interface between the epoxy and aluminum plates. Thus, the interaction of adhesives between surfaces will be improved and stronger and more durable connections will be obtained. Due to the increase in both cohesion and adhesion forces in the adhesive connection, there will be improvements in the general mechanical properties of the adhesive connections.

**Materials and Methods:** AA6061-T6 series aluminum alloy is one of the most used aluminum alloys in aviation. The main characteristic features of 6061 series aluminum alloys are high hardness, good healability and high corrosion resistance. ADEKIT H9952 BK two-component epoxy adhesive, which is frequently used in aviation, was used as the adhesive. This adhesive has high strength properties. In order to increase the durability of epoxy adhesive and improve the mechanical properties of adhesive connections, volcanic particles reinforced in the adhesive were preferred because it is a low-cost and environmentally friendly material.

**Results:** As a result, when the tensile test results of the samples glued in this study were examined, it was observed that there were improvements in the mechanical properties of the material with each volcanic particle added to the adhesive, and the best mechanical improvement was observed as a result of the tensile test of the sample with 1% volcanic particle added by weight.

**Key Words:** Epoxy, Adhesive, Volcanic Particle, Filler, Shear Strength

## **EVALUATION OF QUALITY PERFORMANCE OF STAR ALLIANCE, SKYTEAM AND ONEWORLD MEMBER AIRLINES**

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### **ABSTRACT**

Performance measurement plays a leading role in selecting the strategies that organizations use while shaping their future and updating existing strategies. In global markets, it is important for businesses to improve their performance in integration with the developments and innovations in order to be a pioneer in competition. Many dimensions are used for performance measurements of businesses periodically. One of these dimensions is quality. Quality refers to the conformity of a product or service to a certain standard or criterion. Airline companies continuously focus on quality standards to increase customer satisfaction, ensure safety and improve operational efficiency. Providing high quality services increases customer loyalty and strengthens brand reputation. At the same time, quality operations reduce operating costs and increase efficiency. Therefore, airline companies continuously strive to increase customer satisfaction and business performance by adopting quality management principles. In this context, the quality performances of 10 Star Alliance, Skyteam and Oneworld member airlines (AirCanada, United Airline, American Airline, EVA, SAS, Klm Royal Dutch, China Eastern, Garuda Indonesia, Delta, American Airlines and British Airway) were analyzed based on current Skytrax data for 2023. CRITIC-based WASPAS method, one of the multi-criteria decision-making methods, was used in the analysis process. The criteria used in the analysis are baggage delivery time, seat comfort, restroom cleanliness, in-flight entertainment, service skills and competence, service hospitality, customer interaction and language skills. Among these criteria, the most important criterion was found to be seat comfort and the least important criterion was found to be interaction with customers. As a result of the study, Garuda Indonesia is the airline with the highest quality performance and China Eastern is the airline with the lowest quality performance.

**Anahtar Kelimeler:** Quality, Performance Evaluation, Airline Business, CRITIC, WASPAS.

## VANDALISM OF REINFORCEMENT ELEMENTS IN ÇOMÜ TERZİOĞLU CAMPUS

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### **ABSTRACT**

There is a rapid urbanization in the developing and growing world. With this phenomenon of urbanization, changing living conditions, social structure and technological developments are taking place. These changes have been effective in the development and appearance of cities. Social life, which changes according to technological, economic and cultural conditions, affects urban components and urban furniture in the same way. In this context, vandalism has been considered as an impact on urban furniture. Current vandalism; it is an act of deliberately damaging a product or vehicle belonging to a person or the public within the scope of a request. The person who commits the act of vandalism is called a Vandal. In this context, the act of vandalism has fundamentally different reasons. In addition, the results may also vary and differ. Within the scope of the study; The effects of vandalism observed on the reinforcement elements in the ÇOMÜ Terzioğlu Campus were considered. Acts of vandalism and the cause-consequences of these acts have been evaluated. ÇOMÜ Terzioğlu Campus was accepted as the study area and observation-photography methods were used within the area. The study area was evaluated within the scope of the diversity, circulation and density of the user population, and the vandalism effects of the reinforcement elements were evaluated taking into account these criteria. When the damage conditions of the reinforcement elements located in the area are evaluated; lighting, floor structure, seating units, signs, other objects located in the area (sculpture, bridge, etc.) and classified as plant materials. After the classification, the effects of vandalism detected in the area were revealed, the causes of vandalism were determined, and suggestions were presented to prevent vandalism acts that occurred within the area.

**Key Words:** Vandalism, Vandalism, Reinforcement Elements, Vandalism Effect.

## ÇOMÜ TERZİOĞLU CAMPUS APPLICATION RECOMMENDATIONS FOR IMPROVING TRAFFIC SAFETY

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### **ABSTRACT**

The world population is increasing every day. This increase is causing various problems on the urban scale. The most important of these problems is traffic. The traffic density is increasing in direct proportion to the population. As a result of this intensification, road safety is under threat. Road safety has become a policy for officials working in the field of transportation. Traffic accidents cause many casualties or injuries. In addition, while traffic accidents negatively affect the country's economy, they also cause various social problems. It creates psychological disadvantages on individuals. Currently, efforts are being carried out by the relevant persons in order to reduce traffic accidents and increase traffic offense. The most important point affecting the policies considered for traffic safety is the economy. The identified solutions should also be cost-effective from an economic point of view. Within the scope of this study, ÇOMÜ Terzioğlu Campus was preferred as the study area. Usage and traffic situation were taken into consideration when determining the area. Within the scope of the study, if; Application suggestions have been made to increase the traffic safety of ÇOMÜ Terzioğlu Campus. There is a traffic that is constantly flowing within the area. The high number of users affects the traffic. Not only vehicles or public transportation, but also the number of pedestrians increases the possible safety risk. It is aimed to increase the security of the area where public transportation, motorcycles, passenger vehicles and pedestrians are located. Risks have been identified by on-site observation. In order to have a safe flow by developing the identified risk areas, application recommendations have been made.

**Key Words:** Traffic Problems, Causes of Accidents, Road Safety, Traffic Effects, On-Campus Transportation.

## ROOT CANAL CONFIGURATIONS IN MANDIBULAR PREMOLAR TEETH IN A TURKISH SUBPOPULATION

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### ABSTRACT

**Objective:** This study aims to evaluate the number of root canals and canal configurations in mandibular premolar teeth, using cone beam computed tomography (CBCT) images of a group of patients selected randomly from the Turkish population.

**Materials and Methods:** For this study, 50 patients (25 males and 25 females) who applied to the University of Health Sciences Hamidiye Dentistry Clinic retrospectively examined CBCT images, including 200 mandibular premolars (100 first and 100 second premolars) for dental evaluation. Endodontic treatment, furcation and periapical lesions, root resorption or root caries, post-restoration, periodontal loss and orthodontic treatment have been excluded. CBCT images were examined in detail from axial, coronal and sagittal sections, and the root numbers were recorded. According to the Vertucci classification, the first and second mandibular premolar root canal configurations were identified and statistical analysis was carried out. The significance level is  $p < 0.05$ .

**Results:** In our study, Vertucci Type I root canal anatomy was found most frequently in mandibular first premolars (27%) and second premolars (28%). No statistically significant difference was obtained in the configuration of the mandibular premolar canal between males and females and in comparing the right and left sides ( $p > 0.05$ ).

**Conclusion:** Our study has shown that the mandibular premolars have various Vertucci-type canal configurations, thus emphasizing the importance of careful and detailed evaluation of root canal treatments. The CBCT imaging method is considered the golden standard in detecting different configurations of mandibular premolars in patients.

**Key words:** Vertucci, Mandibular premolar, Cone beam computed tomography

## ETHICAL PROBLEMS IN ROBOTS WITH ARTIFICIAL INTELLIGENCE DURING THE DIGITAL TRANSFORMATION PROCESS OF THE EUROPEAN UNION

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### ABSTRACT

In the early days, robots were mostly used in factories to replace humans in simple, dangerous, boring jobs (Albus and Evans, 1976:77), but today we encounter them in various fields, from production to daily work, medical intervention, healthcare services such as elderly care, and even defense.

With the developing technology, the increasing ability of robots to act autonomously and their interaction with humans has increased the interest and need for robot ethics (Sharkey, 2008 1800-1801). Based on the fear created by the Frankenstein effect and the need to render robots harmless to humanity with the help of internal security mechanisms, the adequacy of the technical standards called "Three Laws of Robotics" based on control, obedience and trust put forward by Asimov in forming the foundations of robot law and ethics in the face of developing technology has become debatable. (Portelli, 1980: 150-151). As a matter of fact, the integration of artificial intelligence (AI) technology, which can be defined as software that can solve problems by imitating human intelligence, into robots and its use has led to discussions that although robots increase their autonomy by solving problems, they will pose a threat to humanity if they do not have moral values and therefore the ability to make ethical decisions (Anderson and Anderson, 2010:74).

Despite the heated debates and the importance given to the development of robotics technology within the scope of the Digital Agenda (De Bruin, 2016: 485,499), when the European Union (EU) resources are examined, it is seen that Beyond the initiatives of the European Robotics Research Network (EURON) and the Commission's calls for membership to the European Group on Ethics in Science and New Technologies, there is no specific regulation on robot law and ethics at the Union level, and the issue is covered from the perspectives of the European Charter of Fundamental Rights (EURON, 2006:18), privacy, product safety and personal data protection (De Bruin, 2016: 486,488).

In this study, after examining the concepts of robot and AI, their similarities and differences, some exemplary common ethical problems that may arise from the combined use of robot and AI technologies will be tried to be revealed. In the following sections, after examining whether the EU AI ethics can be applied comparatively in solving the ethical problems that AI robots may pose, suggestions will be made on how the EU's shortcomings regarding robot ethics should be eliminated.

**Key words:** Robot, artificial intelligence, robot law, robot ethics, digital technologies.



## **BIBLIOMETRIC ANALYSIS OF POSTGRADUATE THESIS STUDIES ON "SUPERVISION" IN TÜRKİYE**

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### **ABSTRACT**

**Introduction and Purpose:** Supervision is a natural part of mental health professions education. It is very important in terms of supporting professionals who is working and will work in the field of mental health to provide more qualified services. The aim of this study is to examine the postgraduate theses on "supervision" in Turkiye in terms of various variables like thesis types, years of publication, language, university, programme, supervisor title and research design.

**Materials and Methods:** Document analysis method from qualitative research model was used in the study. A total of 24 related postgraduate theses published in the National Thesis Centre of YÖK were inserted into this research.

**Results:** When the postgraduate theses within the scope of "supervision" were examined, it was found that there were more doctoral level theses (58.3%), the most of the thesis studies were carried out in 2014 (16.7%), 2017 (16.7%) and 2022 (16.7%), the most of the thesis studies were carried out in Turkish language (75%), the most of the thesis studies were carried out at Anadolu University (16.7%), the most of the thesis studies were carried out in the Institute of Social Sciences (54.2%), that most of the thesis studies were carried out in the Psychological Counselling and Guidance programme (54.2%), that most of the professors advised the thesis studies (70.8%), these theses were mostly carried out in the survey model (66.7%).

**Discussion and Conclusion:** The bibliometric analysis of graduate thesis studies within the scope of supervision provides important clues about the field in terms of closer recognition and description of these studies and sheds light on future studies.

**Key Words:** Supervision; Postgraduate Thesis; Bibliometric Analysis; Mental Health

## INVESTIGATION OF SUICIDE PROBABILITY AND PSYCHOLOGICAL FLEXIBILITY OF ADOLESCENTS AFTER THE EARTHQUAKE

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### ABSTRACT

**Introduction and Purpose:** In this study, suicide probability and psychological flexibility/rigidity in adolescents after the earthquake on February 6th in Türkiye were examined in terms of various variables.

**Materials and Methods:** The research, which was conducted as used the survey model, was carried out with a total of 328 adolescents/high school students, 185 girls (56.4%) and 143 boys (43.6%), studying in a high school in Iskenderun district of Hatay province in the 2023-2024 academic year. Personal Information Form, Acceptance and Action Questionnaire-II (AAQ-II) and Suicide Probability Scale (SPS) were used as data collection tools.

**Results:** Suicide probability (girl  $\bar{X}$ =82.02, boy  $\bar{X}$ =76.78) and psychological rigidity levels (girl  $\bar{X}$ =23.86, boy  $\bar{X}$ =18.30) of adolescents differed significantly according to gender ( $p<.01$ ). This differentiation was observed in the suicide probability scale sub-dimensions of 'hopelessness' (girl  $\bar{X}$ =28.67 boy  $\bar{X}$  =26.15  $p<.01$ ), 'negative self-evaluation' (girl  $\bar{X}$ =21.09 boy  $\bar{X}$ =19.84  $p<.05$ ) and 'hostility' (girl  $\bar{X}$ =13.64 boy  $\bar{X}$ =12.62  $p<.05$ ), while no significant differentiation was found in the sub-dimension of 'suicidal ideation' (girl  $\bar{X}$ =18.61 boy  $\bar{X}$ =18.24  $p>.05$ ). In addition, when analysed according to the grade level, while a significant difference was found between the groups in the negative self-evaluation sub-dimension of suicide probability ( $p<.05$ ), a significant difference couldn't be detected found between the total score of suicide probability, hopelessness, hostility, suicidal ideation sub-dimensions and psychological rigidity levels ( $p>.05$ ). In the Pearson correlation analysis, it was found that there is a positive and moderately significant relationship between suicide probability and psychological rigidity (flexibility) levels in adolescents ( $r=0.65$ ,  $p<.01$ ).

**Discussion and Conclusion:** In the light of the results, it is seen that practices that reduce adolescents' psychological rigidity levels and improve their psychological flexibility levels are important in terms of preventing many mental health problems including suicide.

**Key Words:** Adolescent; Suicide Probability; Psychological Flexibility; Earthquake

## **INVESTIGATING A THREE-PHASE, FOUR-WIRE SHUNT ACTIVE POWER FILTER TO REDUCE HARMONICS**

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**Abstract** – This scientific paper presents a detailed study on the efficacy of a three-phase four-wire shunt active power filter for harmonics mitigation in electrical systems. Harmonics, resulting from non-linear loads, can adversely affect power quality and cause issues such as increased losses and reduced efficiency. The shunt active power filter is designed to actively compensate for these harmonics by injecting controlled currents into the system. The study involves theoretical analysis, simulation studies, and experimental validation to evaluate the performance of the power filter under various operating conditions and harmonics levels. Parameters such as THD, power factor improvement, and voltage regulation are measured and compared with conventional passive filters. The findings provide valuable insights into the effectiveness and limitations of the shunt active power filter for harmonics mitigation. This research contributes to the advancement of power quality management and emphasizes the importance of active filter technologies in addressing harmonics-related challenges in modern electrical systems.

**Keywords** – four-wire, Harmonics, Power factor, THD,

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## THE EFFECT OF PROPRIOCEPTIVE SENSE ON SHOOTING ACCURACY IN BASKETBALL

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### ABSTRACT

**Introduction and Purpose:** In order to determine the intensity of balancing the elbow angle of this successful proprioceptive sense, the 180° flexion angles of the elbow joints of basketball players were measured and the relationship between the dominant sides and the realization of proprioception on shot accuracy was examined.

**Materials and Methods:** The sample of the research consists of elite basketball players who have been licensed for at least 9 years in Samsun Basketball Specialized Sports Club located in İlkadım and Canik districts of Samsun, and players between the ages of 11-26 who have been playing recreational basketball for at least 2 years in Şehit Uğur Birinci Sports Club and Samsun Canik Basketball Sports Club. It consists of male and female athletes. 33 female and 10 male athletes operating in three sports clubs participated in the research. In the data of the research, "Demographic Information Form" prepared by the researcher was used to learn the demographic information of the athletes and "Baseline brand 1° Sensitive Digital Goniometer" was used to measure the proprioceptive sense of the athletes. The research data was coded on the computer and made ready for analysis. The analysis of the data obtained was made using the SPSS 25.0 (The Statistical Packet for The Social Sciences) package program. Whether the proprioceptive sense has a significant effect on shot accuracy was calculated with the Independent Samples T-test. Whether proprioceptive sense has a significant effect on position and sports age was calculated by ANOVA.

**Results:** It was concluded that proprioceptive sense did not have a significant effect on position, sports age, gender and shooting ( $p>0.05$ ). **Discussion and Conclusion:** As a result, this performance examines the effect of proprioceptive sense on the shooting accuracy of basketball players and its relationships with the athletes' position, shooting, sports age and gender variables. According to the findings obtained as a result of the research, no significant results were obtained in any variable.

**Key Words:** Proprioceptive sense, Basketball, Shooting

## **ASSESSING THE NEXUS BETWEEN E-SATISFACTION AND E-WOM IN THE ALGERIA CONTEXT**

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### **Abstract**

The present study seeks to highlight the correlation between e-satisfaction and e-WOM of e-shopping in Algeria. The research is based on an online survey that was done between July 20, 2023 and January 25, 2024, among 182 Algerian e-consumers. Moreover, the study was based on Pearson correlation test using SPSS version 26.

As results, it has been confirmed that the e-satisfaction are not correlated with e-loyalty (p-value:  $0.797 > 0.05$ ). In other words, the satisfaction of Algerian e-shoppers is not correlated with e-WOM regarding transaction conducted.

**Keywords:** Online shopping; Algeria; e-consumer; e-WOM: e-satisfaction: correlation test; SPSS.

**BIOACTIVE PENTA- AND HEXA-COORDINATED ORGANOTIN(IV) COMPLEXES  
WITH TRIDENTATE SCHIFF BASE**

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**ABSTRACT**

Schiff base ligand (**HL**) was synthesized by condensation of 3,5-dichlorosalicylaldehyde and 5-aminotetrazole. The organotin(IV) Schiff base complexes (**1-5**) were synthesized by treating Schiff base with  $R_2SnCl_2$  and  $R_3SnCl$  [ $R=Me, n-Bu$ ] under reflux. The synthesized ligand and organotin(IV) Schiff base complexes were soluble in common organic solvents including methanol, toluene and DMSO. Molar conductivity of synthesized ligand and complexes showed the non-electrolyte nature of synthesized ligand and organotin(IV) Schiff base complexes. The synthesized ligand and complexes (**1-5**) were characterized by UV-Visible, FT-IR and  $^1H$  NMR spectroscopy. FT-IR spectra of synthesized ligand and corresponding complexes gave information about binding mode of ligand towards central metal atom. It also gave idea about new peaks that appeared upon complexation by occupying oxygen and nitrogen donor sites of ligand.  $^1H$  NMR spectra explained different chemical shifts in ppm that showed the presence of O-H moiety in ligands spectra that disappeared in all complexes on Sn-O bond formed. The spectral data revealed five and six coordinated environments around central tin moiety via azomethine nitrogen, tetrazole nitrogen and phenolic oxygen linkage and showed Schiff base acts as a tridentate (ONN) ligand. The synthesized ligand and complexes (**1-5**) were screened for antibacterial activity against different bacterial strains using agar well diffusion method. The results showed that all complexes were biologically active than free ligand.

**BUSINESS ETHICS CULTURE IN THE FORMATION OF EMPLOYEE  
PERFORMANCE MANAGEMENT**

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**ABSTRACT**

This journal aims to find out the culture of business ethics that is needed in any activity, including in the business world. This research is the result of qualitative research using library research methodology, which refers to books and scientific works related to business ethics and corporate culture. The research results obtained are that culture contributes to the formation of ethical behavior, because an organizational culture is a combination of values and norms to guide the actions of all company employees. This ethical behavior arises from rules called business ethics. A solid culture will be a company tool to compete with competitors. Because a strong culture will increase constant behavior, which can create effectiveness within the organization which is of course influenced by the performance of employees within the company.

**Keywords:** Corporate Culture, Business Ethics, Employee Performance.

## LITERARY REPORTAGE ON TRAVELING TOPICS ON THE PAGES OF PERIODICALS OF THE 20S AND 30S OF THE 20TH CENTURY

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### ABSTRACT

Literary reportage entered Ukrainian newspaper and magazine publications during the period of national and cultural revival, which was called “korenization”. The rapid development of culture, associated with the process of special interest in unknown or little-known corners of Ukraine, contributed to the spread of this genre, which helps the readers picturesquely, in the most vivid details, and at the same time reproduce concrete reality as accurately as possible, dynamically depict current life.

Knowing themselves through their native country, Ukrainian writers and journalists also needed to travel to other countries, because the true significance of Ukraine became clear through comparing it with other states, nations and cultures, through the establishment of centuries-old cultural and artistic ties with foreign countries. So when it became possible to travel not only in Ukraine and remote corners of the USSR, but also abroad, travel reports began to appear. In the 1920s, the communist authorities encouraged journalists to travel outside the USSR, as they well understood that travel-related materials were a fairly effective propaganda tool.

The route of the Ukrainian traveling journalist was determined primarily not by the cultural paradigms of national consciousness, but by the foreign policy tasks of the Soviet Union. Oleksandr Maryamov visited Iran (on February 26, 1921, the Soviet-Iranian Treaty on the Establishment of Friendly Relations was signed in Moscow), and as a result of such a trip, the reports “There, for Paglevi”, in “New Generation” (1928, No. 10) – “Letter from Persia”, and in the magazine “Literary Fair” (1929, No. 5) – “Mr. De Hoda”. In 1929, travel reports, combined into a separate cycle “Iran without a chadur”, were published in the book “Paths under the Sun (10,000 Kilometers)”.

Kostya Kotko and Leonid Pervomaiskyi visited Turkey (on March 16, 1921, the Soviet-Turkish Treaty of Friendship and Brotherhood was signed), and as a result of such a trip, Kostya Kotko's report “The Despised Mosque” was published in “Universal Magazine” (1928, No. 2) “The Red Way” (1928, No. 2) is excerpts from several of his reports, united under the general title “The Sun Beyond the Minarets”. In the same year, 1928, the author published a collection of reports “The Sun Beyond the Minarets”, and after the second trip to Turkey, the book “Diary of Several Cities” (1930) was published, which was based on the reports of the first edition, supplemented with new impressions and observations. The report from L. Pervomaiskyi's journey “One hundred kilometers per hour” was printed in the magazine “Hart” (1929, No. 5) and in the same year his separate collection “Notebook of Wanderings. Episodes and meetings” was published.

Alexander Poltoratskyi visited Mongolia and gave a description of his journey in the summer of 1930 to Ulaanbaatar and the Gobi in the collections of reports “Attack on the Gobi” (1930) and “The Last Days of the Burkhans” (1932) (agreement on the establishment of friendly relations between the Soviet government and the delegation of the Mongolian People's Republic was signed on November 5, 1921).



Oleksa Vlyzko, who made a trip to this country in 1928 (diplomatic and consular relations between the RSFSR and Germany were restored on April 16, 1922), presents his vision of the social and political life of Germany in the collection of reports “Trains Go to Berlin” (1931).

Ivan Mykytenko, after a trip to Poland, Czechoslovakia and Germany in November-December 1928, publishes reports in the magazine “Hart” (1929, No. 2-9) under the general title “Doves of Peace” (the Peace Treaty of the RSFSR and the USSR, on the one hand, and Poland, from the second, concluded on March 18, 1921). The book “Doves of Peace. A Journey Abroad” was published by the State Publishing House of Ukraine in 1930.

Sava Golovanivskiy gave his impressions of his travels in Italy in the report “Here he is – Naples” (Hart, 1931, No. 3) (diplomatic relations between the Soviet Union and Italy were established on February 7, 1924). The following year, in 1932, he published a collection of reports “Boots of Europe”.

Leonid Nedolya visited China (diplomatic and consular relations with China were established on May 31, 1924) and described his trip in the reports “To the Far East” (Universe, 1928, No. 37), “Shanghai” (Universe, 1928, No. 38), “Rickshaw” (Universe, 1928, No. 40), “Whites” (Universe, 1928, No. 42), “Dangerous Road” (New Generation, 1929, No. 4). In 1929, the “Ukrainian Worker” publishing house published a collection of literary reports “Yellow Brothers. Through Hina” with a foreword by M. Novitskyi.

In December 1924, Valeriy Polishchuk, as a representative of the Union of Proletarian Writers “Hart”, went on a trip to Europe. Oles Dosvitnyi and Pavlo Tychyna were part of the official writing delegation, in addition to Polishchuk. Writers visited Germany, France, Czechoslovakia (on June 6, 1922, the USSR signed a temporary agreement with the Czechoslovak Republic, which provided for the exchange of diplomatic missions, and diplomatic and consular relations with France were established in 1924). Through Moscow and Riga they traveled to Berlin, Prague and Paris. From Berlin we went to Hamburg, Dresden and Leipzig.

After returning from the trip, Polishchuk published the book “The Division of Europe” (1925) in the Knygospilka publishing house, and Dosvitny published it in the newspaper “Kultura i pobut” (a supplement to the newspaper “Visti VUCVK”) and in the magazine “Chervony Slyach” (1925, No.6-7, No.9) numerous reports from foreign lands. In 1929, the publishing house “Knygospilka” published them as a separate book “Traveler's Notes”.

In the fall of 1928, Valerian Polishchuk went on a journey through the Scandinavian countries. The travel report “In the North of Europe” was printed in the “Universal Magazine” (1929, No. 1), and in 1931 his richly illustrated collection of reports “Raid to Scandinavia” was published (diplomatic and consular relations with Sweden and Norway were established in 1924, and with Finland in 1920).

Journalists and writers helped establish cultural ties abroad, shaped the prestige of the Soviet country, and promoted the benefits of the communist way of life.

Materials about different countries, their life and culture, written more than ninety years ago, are read with interest and are relevant today, because they are informative, entertaining, attract the modern reader with intriguing statements about the past, and show an objective picture of life in different countries in 1920-30- e years.

**Keywords:** literary reportage; magazine; newspaper.

**FILTRATION EFFICIENCY OF CERAMIC WATER FILTER POT PRODUCED FROM CLAY AND BIOMASS AND BIOMASS AS ALTERNATIVE SOURCE OF WATER PURIFICATION FOR RURAL AREAS**

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**ABSTRACT**

The use of contaminated drinking water by some villagers results in the spread of waterborne diseases such as diarrhea, cholera, and other long-term illnesses. This present study aims to produce ceramic water filter pot blend biomass as an alternative water purifier for rural areas. Clay and biomass samples were obtained from Kaura Namoda Zamfara. The physical properties of clay, namely moisture content (10.54%), specific gravity (1.74%), dry density (1.61%), liquid limit (32.84%), and shrinkage (12.70%), and proximate analysis of the biomass were determined using standard analytical methods. The two ceramic pots produced from different biomass at different ratios of clay to biomass were used to filter stream water obtained from Yankaba village. The results show an efficient reduction of turbidity, conductivity, alkalinity, iron, sulfate, and silica by an average of 58%, 60%, 40%, 68%, 76%, and 81%, respectively. Total removal of bacteria and *E. coli* was recorded, and 78% of coliform was removed. Using statistical analysis to compare the ceramic pot, a significant difference was observed in filtration efficiency between the ceramic pot produced with groundnut shell and rice husk. Therefore, it was concluded that the use of a ceramic pot filter should be encouraged in rural areas to reduce the spread of waterborne disease.

**Keyword:** Ceramic, Stream water, Filtration, Physicochemical Parameter

## ACTIO LIBERA IN CAUSA (ALIC) THEORY IN CRIMINAL LAW

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### ABSTRACT

The theory of actio libera in causa (action free in its reason), which dates back to Aristotle, is one of the controversial areas of criminal law. In modern criminal law, it is possible for a person to be punished for an act he has committed only if he can be reprimanded for his act. Therefore, if a person is not found to be at fault for his act, criminal liability will not be raised. In order for a person to be considered defective due to his act, he must be capable of defect and the circumstances that remove the imperfection must not have occurred. Thus, the ability to negligence is taken into account in the assessment of negligence.

The Turkish Penal Code stipulates that in order for the perpetrator to be punished for an act he has committed, his culpability must be present "at the time the act is committed" (art. 31 et seq.). The ability to negligence is present at the time the act is committed. What should be understood is the moment when the movement is carried out. The criminal responsibility of the person who has the ability to negligence at the time of the commission of the act but later loses this ability continues. The influence of this is manifested only in the law of reasoning. In this case, no trial can be held and an obstacle to trial occurs.

Although this is the rule, in some cases the culpability of the perpetrator at the time the act was committed or the act was committed even if it is not found, the perpetrator can be held responsible for the result. The reason for this responsibility is the theory of actio libera in causa (alic). Today In criminal law, the problem of how to punish a person in the event of a temporary loss of negligence is solved by the theory of actio libera in causa. The theory of actio libera in causa can be defined as the fact that the perpetrator, while in a state capable of culpability, creates the necessary conditions to provide an excuse for himself at the time of committing the act.

With the alic theory, which describes how and for what reason the perpetrator, who is not capable of negligence during the execution of the act, can be held responsible, it is aimed to reveal that the perpetrator is responsible for the result that occurs, although he is not at fault at the time he commits the crime, and to prevent the impunity of a crime committed in a defective manner.

**Key words:** Negligence, culpability, ability to negligence, criminal liability, action free in its reason.

## **CHARACTERIZING THE KEY ACTORS AND ITS FUNCTIONAL ROLES ALONG THE GROUNDNUT VALUE CHAIN IN NIGERIA**

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### **ABSTRACT**

Groundnut (*Arachis Hypogaea* L.), a crucial oilseed and food crop in Nigeria. The income-generating capacity of the groundnut value chain analysis in Nigeria is yet to be fully exploited due to limited producer participation, poor collaboration among actors, inefficient marketing, and inadequate marketing facilities. The objective of this study was to characterize the key actors and assess their functional roles along the groundnut value chain in Nigeria. The study was accomplished through cross sectional data during 2020 and 2021 production season, and secondary data obtained from ICRISAT in Nigeria. A multi-stage sampling procedure resulted to random selection of 1,302 ground nut farmers, 409 groundnut marketers, 316 groundnut processors and 169 consumers. Descriptive statistics and inferential statistics were used to analyze the generated data. The key actors in groundnut value chain include input supplier, producers/farmers, marketers, processors and consumers. The study reveals that groundnut farmers and marketers were predominantly male in Nigeria. Groundnut input supplier purchased machinery and fertilizers for medium to large scale farmers while small-scale and commercial farmers represent the primary producers in the groundnut value chain. At the production level, cooperative attempts to increase productivity are typical among small-scale farmers. Processors represent the ultimate purchasers of raw groundnut produce within the chain, comprising both large-scale (18.2%) and small-scale (82.8%) entities. Large-scale processors procure significant quantities of groundnut to manufacture groundnut oil, while small-scale processors utilize the product for groundnut oil, and livestock feed production. The marketing phase is a highly competitive segment in the value chain, involving local traders and processing corporations, as it serves as the link between producers and consumers. Stakeholders can work together to address challenges, explore opportunities, and develop innovative solutions to enhance the efficiency, competitiveness, and sustainability of groundnut production and marketing activities.

**Keywords:** Competitiveness, groundnut, functional role, value chain, Nigeria

**"CHATAK MATAK" - THE HARYANVI HIT THAT INSPIRED THE  
CHOREOGRAPHERS AND DANCERS OVER THE GLOBAL CYBERSPACE  
TRENDS AND PSYCHOLOGICAL NOTES**

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**Abstract**

The Haryanvi song video "Chatak Matak" shortly after its official release on one of the most popular global platforms for online video creative content sharing - Youtube - became an immediate hit not only for the Haryana music audience, but also for the whole Indian subcontinent and the neighbor regions and even beyond. According to some statistics and charts the song video broke several records of appreciation and popularity.

In this study the authors placed as tasks to explore and analyze the response of the choreographers and the dancing artists and enthusiasts and the general audience on local and global scale over one of the leading worldwide cyber platforms for creative media content sharing – Youtube.

The results revealed that "Chatak Matak" as a song video quite rich of elements traditional for the ancient local Haryana culture insightfully blended with modern influences over the music and choreography could attract the attention and interest of culturally diverse audience and followers. Also the resulted creative performance works based on the "Chatak Matak" could incorporate either more traditional for the local culture elements or contemporary ones or mixture of both. So the "Chatak Matak" could serve as cultural unifier and ambassador of the Haryana culture on local and global scale.

**Key words:** Chatak Matak, choreography, Abhinaya, Haryanvi culture, Indian psychology.

**THERMALLY-INDUCED VIBRATIONS OF ISO-THERMAL THIN STRUCTURES  
SUBJECT TO VARIOUS STRUCTURAL BOUNDARY CONDITIONS**

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**ABSTRACT**

Thermally-induced vibrations behavior of an isotropic and composite beam is investigated in this study. Firstly, a series-based theoretical approach is followed to investigate thermally induced vibrations of a one-dimensional, bounded aluminum structure assumed to be at a constant temperature on one side and subjected to heat fluxes in various forms on the other side. The general temperature equation obtained as a result of conduction heat transfer is used to derive equations of thermal moments and thermally-induced vibrations for the structure. These equations for the thermal moment and vibrations are general and can be used for thin structures subjected various forms of heat fluxes. Two different heat fluxes, constant and ramp types, are studied in this work. As for the structural boundary conditions, simply-supported and cantilever end conditions are utilized to analyze the thermally induced vibrations due to these heat fluxes. Iso-thermal temperature conditions with zero temperature without loss of generality are imposed on the side of the beam opposite to the side exposed to the heat flux. In addition to the theoretical approach, the finite element method is also used to obtain results for the thermally induced vibrations through the Ansys program. The theoretical results for the aluminum beam are then compared with those obtained by the finite element method. The thermal vibrations of a composite thin beam with the simply-supported structural boundary condition and suddenly-applied constant heat flux are also considered. Likewise, the theoretical results are compared with those obtained using the finite element method. Various results demonstrate the thermally- induced vibration behavior of the thin isotropic and composite beams.

**Key Words:** Iso-Thermal; Structure; Series-Method, Theoretical, Finite Element Method, Thermally-Induced Vibrations, Heat Flux; Composite.

## N-ARYLATION OF CARBAZOLE DERIVATIVES

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### **Abstract**

Carbazole is a heterocyclic aromatic organic compound which is formed by the fusion of two benzene rings on either side of a five membered nitrogen containing ring. Currently, N-arylated azaheterocycles have attracted attention of researchers in synthetic chemistry due to their properties in the fields of biological, pharmaceutical, and material science. Among them, N-Arylcarbazole derivatives have become a major area of interest due to their applications in organic light-emitting diodes (OLEDs), organic solar cells and luminescent materials owing to their high thermal stability, hole transporting properties, and photoconductivity. The methods used for the N-arylation of carbazole are aromatic nucleophilic substitution reactions, copper catalysed Ullmann coupling reactions, palladium catalysed reactions, nickel catalysed reactions and transition metal free reactions.

**Keywords:** Heterocyclic Compounds, N-arylation, carbazole, reaction

**SYNTHESIS OF BINDER-FREE NANOFIBERS ZNS/MOS<sub>2</sub>/NIF ELECTRODE MATERIAL FOR ASYMMETRIC SUPERCAPACITOR APPLICATIONS****Raza****A. Rasheed****A. Farid****Misbah Yousaf****N. Ayub****I. A. Khan**

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**Abstract**

Molybdenum disulfides (MoS<sub>2</sub>) have layered nanostructures which accomplished as potential electrode materials (E-Ms) for lithium-ion batteries and supercapacitors. Herein, binder-free hierarchical MoS<sub>2</sub> and heterostructured ZnS/MoS<sub>2</sub> E-Ms are synthesized on nickel foam (NiF) via a simple and homemade chemical vapor deposition (CVD) system. The interconnected nanofibers via nanorods improve the porosity, active sites, surface area, structure stability, chemical stability and volume expansion resulting in fast electron and ions kinetic for excellent electrochemical performance of heterostructured ZnS/MoS<sub>2</sub>/NiF E-Ms. The heterostructured ZnS/MoS<sub>2</sub>/NiF E-Ms exhibited a maximum specific capacitance (C<sub>sp</sub>) of 3540 F/g in contrast to individual MoS<sub>2</sub>/NiF E-Ms 1666 F/g (1 A/g) owing to their unique nanofibers/nanorods like surface morphology. The interconnected nanostructures of ZnS/MoS<sub>2</sub>/NiF offered no charge transfer resistance (absence of semicircle) as compared to MoS<sub>2</sub>/NiF E-Ms (0.51 Ω cm<sup>2</sup>) during the whole kinetic process. The energy density and power density of ZnS/MoS<sub>2</sub>/NiF E-Ms from 72-122 Wh/kg with power density ranging from 250-2500 W/kg. Moreover, after 20000 cycles, more than 95% of C<sub>sp</sub> is retained by ZnS/MoS<sub>2</sub>/NiF E-Ms thereby indicating excellent cyclic stability. The Power law and Dunn's model simulations also indicated that the synthesized ZnS/MoS<sub>2</sub>/NiF E-Ms have both battery-grade and pseudocapacitive behavior. Additionally, assembled ZnS/MoS<sub>2</sub>/NiF ASC device exhibited maximum C<sub>sp</sub> of 494 F/g, energy density 203-109 Wh/kg, power density 860-17200 W/kg along with cyclic stability of 97% for 5000 cycles. The unique electrochemical properties of ZnS/MoS<sub>2</sub> E-Ms able them to be used as potential candidate for the next generation of best performing pseudocapacitors.

**Keywords:** Chemical vapor deposition, Nanostructure, ZnS/MoS<sub>2</sub>/NiF, Nanofibers, Pseudocapacitor, Power density



## **EFFECTS OF INTEREST RATE ON CREDIT ACCESSED BY MAIZE FARMERS IN KUJE AREA COUNCIL OF ABUJA, NIGERIA**

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### **ABSTRACT**

This study examined the effects of interest rate on credit accessed by maize farmers in Kuje Area Council of Abuja, Nigeria. Two-stage procedure was used to select 84 respondents into maize farming in the study area. Primary data were collected using structured questionnaire complemented with an interview schedule. Data collected were analyzed with descriptive statistics (frequency count, percentages and mean) and inferential statistics (Cobb-Douglas regression). Findings from the study showed that most (72.6%) of the respondents were male and the predominant age bracket was 31–40 years with a mean of 39 years. This implies that the maize farmers were young which could influence their desire to access loan credit for farming. Also, most (71.4%) of the respondents were married with a mean household size of 8 people. The respondents were experienced farmers with a mean farming experience of 9 years, but has a mean farm size of about one hectare representing small farm holdings. Only few (28.6%) of the respondents had contact with extension agents, while most (65.5%) of them were member of cooperative society. In terms of access to credit, majority (96.4%) of the respondents had access to credit. Sources of credit and mean volume of credit accessed as indicated by the respondents was from microfinance banks (30.9%; ₦266,538) with an interest rate of 7.32%, family and friend (30.9%; ₦266,538) with an interest rate of 3.97% and money lenders (28.6%; ₦266,538) with an interest rate of 11.96% among others. The mean volume of credit obtained by the respondents was ₦298,095. Meanwhile, variables such as household size (0.1612;  $p < 0.10$ ), farm size (0.1785;  $p < 0.01$ ), farm income (0.4705;  $p < 0.01$ ), credit awareness (0.2164;  $p < 0.01$ ) and collateral provision (0.0474;  $p < 0.10$ ) had positive and significant effects on the volume of credit accessed by the respondents. The interest rate (-0.1196;  $p < 0.05$ ) had negative and significant effects on the volume of credit accessed by the respondents. This shows that as the interest rate increases, the volume of credit accessed will decrease. The study recommends that financial institutions especially Bank of Agriculture (BOA) should be adequately funded by the Government to provide credit loans to farmers at low interest rate in order to ensure greater production that will guarantee food security.

**Keywords:** Effects, Interest rate, Credit Accesses, Maize farmers

## **ULTRASOUND ASSISTED EXTRACTION OF BIOACTIVE COMPOUND FROM PEARL MILLET (PENNISETUM GLAUCUM) AND UTILIZATION FOR PRODUCT DEVELOPMENT**

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Pearl millet (*Pennisetum glaucum*), considered a poor man's cereal, may be a repository of dietary antioxidants, especially flavonoids and phenolic acids, which provide bioactive mechanisms to reduce free radical induced oxidative stress and probably play a role in the prevention of ageing and various diseases associated with oxidative stress, such as cancer, cardiovascular, and neurodegenerative diseases. Ultrasound technology is a revolutionary approach that is considered "green" due to its great repeatability, reduced solvent consumption, easier manipulation, and higher final product purity. The present investigation examined the possible antioxidant activities and the ultrasound-assisted extraction of bioactive components from pearl millet powder (10, 40, 70 minutes; 50°C; methanol concentration as 40, 70, 100). The solution underwent ultrasonic treatment and then centrifugation (5,000 rpm for 15 min). Tests for DPPH, FRAP, total phenolics, and total flavonoids were performed on the obtained extracts. In light of these findings, bread was subsequently made using pearl millet powder extract. A variety of factors, including the breads' ability to absorb water and oil, their level of cooking, and their sensory qualities, were examined. Better consumer acceptability of the produced breads was found by sensory analysis.

**Keywords:** Pearl millet; Ultrasound; Bioactive compounds; Antioxidant; Phenolic compounds

## **ULTRASOUND ASSISTED EXTRACTION OF BIOACTIVE COMPOUND FROM SORGHUM (SORGHUM BICOLOR) AND UTILIZATION FOR PRODUCT DEVELOPMENT**

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Sorghum (*Sorghum bicolor*) is an outstanding source to dietary phenolics, therefore often equated with antioxidant, anti-inflammation, anti-diabetic, anticancer, and other health promoting benefits. Ultrasound is novel “green” technology with high reproducibility, reduced solvent consumption, simplified manipulation and with higher purity of the final product. In this current study, sorghum powder was tested for the ultrasound assisted extraction (10, 40, 70 minutes; 50°C; methanol conc. as 40, 70, 100) of bioactive compounds and potential antioxidant properties. Followed by ultrasound treatment, solution was subjected to centrifugation (5000 rpm for 15 min). Obtained extracts were tested for DPPH, FRAP, total phenolics and total flavonoids, which given highest results as 10.23 mg TE/100 gm, 15.34 mg TE/100 gm TE/g FW, 44.92 mg GAE/g FW, and 7.54 mg Rutin/g FW, respectively. Following these results, sorghum powder extract was then utilized to develop bread. Prepared breads were tested for different aspects such as cooking quality, water and oil absorption, and sensory characteristics. Sensory analysis revealed better consumer acceptance for the prepared breads.

**Keywords:** Sorghum; Ultrasound; Bioactive compounds; Antioxidant; Phenolic compounds

**ADVANCEMENTS IN SMART WASTE MANAGEMENT SYSTEMS:  
A COMPREHENSIVE OVERVIEW**

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**ABSTRACT**

We meticulously gathered insights from reputable journals, enriching our app development process with evidence-based research and ensuring a foundation rooted in the latest advancements in urban waste management .M. Karthik & co authors (2023) devised a solution for overflowing trash cans using a budget-friendly embedded device with ultrasonic sensors. It monitors in real-time, alerting collectors when limits are reached for timely city sanitation, promoting a healthier environment. S. Subburaj & co authors (2023) proposed a smart waste collection system optimizing routes during peak hours, ensuring road safety via a user-friendly app and real-time public map updates. Soumyabrata Saha & co author (2023) introduced a tailored smart waste management system for urban areas, emphasizing efficiency through regular sterilization, and incorporating dynamic scheduling and route optimization for improved service quality .Pardeep Kumar & co author (2023) developed a model for smart trash bins, focusing on reliability metrics and identifying critical components for timely maintenance. Minhaz Uddin Sohag & co author (2020) present a smart IoT waste management system for urban areas, utilizing Arduino Uno and sensors to monitor and alert authorities when bins are full, reducing manpower and ensuring cost-effective and efficient waste management.

## INVESTIGATING THE APPLICABILITY OF MACHINE LEARNING IN PERFORMANCE ANALYSIS OF SOLAR WATER PUMPS

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### ABSTRACT

**Introduction and Purpose:** The efficient use of solar energy offers a promising way to address environmental concerns while providing significant economic benefits. The use of solar water pumps can offer significant environmental and economic advantages. This study investigates the usability of the machine learning approach in performance analysis of the performance of solar water pumps.

**Materials and Methods:** The thermal efficiency parameter of solar water pump systems was discussed. A multilayer artificial neural network model was developed to analyze thermal efficiency with a machine learning approach. Bayesian Regularization training algorithm was used in the developed model.

**Results:** The developed artificial neural network model showed high prediction accuracy, as evidenced by the close agreement between predicted and actual thermal efficiency values. The performance coefficient of the neural network model was determined as 0.95088, and the mean square error value was determined as  $6.87E-05$ .

**Discussion and Conclusion:** This research demonstrates the applicability of machine learning methods in performance analysis of solar water pump systems. The high level of agreement between predicted and actual values emphasizes the reliability and precision of such models. This study underlines the potential of artificial neural networks for the prediction of efficiency parameters of solar water pumps.

**Key Words:** Solar water pumps; performance analysis; machine learning; thermal efficiency; artificial neural network

## THE EVALUATION OF URBAN QUALITY OF LIFE IN THE DIVERSE HOUSING AREAS: THE CASE OF ALMERE, NETHERLANDS

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### ABSTRACT

**Introduction and Purpose:** Quality of urban physical environment is critical for enhancing well-being of urban residents. Housing alongside services, economic opportunities and social interaction plays a significant role. This study assesses urban quality of life across different housing areas in Almere city of Netherlands, focusing on the relationship between environmental quality and housing satisfaction.

**Materials and Methods:** Different housing areas in Almere's districts such as Poort, Haven, Stad and Buiten were analyzed based on typology, construction year, size and urban form. A survey distributed via Google Forms captured individual perceptions and demographic data, which were analyzed using statistical analysis.

**Results:** The results showed that 84% of participants prioritize sufficient housing amenities, and 86% prioritize proximity to their workplace as key reasons for their choice of housing. Moreover, the findings indicated that 56% of residents in various housing areas of Almere were satisfied with their access to social and recreational activities. In Poort, smaller households favor apartment living with smaller square footage. Haven's unique layout and established social connections enhance residents' sense of belonging by influencing longer stays. Despite its central location, Stad suffers from high density and limited space, which reduces housing satisfaction. Conversely, Buiten features independent housing and high ownership rates, reflecting the preference of families and older residents for more space and privacy.

**Discussion and Conclusion:** The findings highlighted the influence of urban design and housing policy on residents' housing preference and quality of life, demonstrating the necessity of supporting diverse lifestyles in terms of urban planning. Effective urban planning should integrate both design and social structure to create inclusive environments, which enhance overall urban quality of life by meeting various economic and social needs and increasing satisfaction from physical environments.

**Key Words:** Urban Quality of Life, Housing Satisfaction, Almere, Urban Planning

## **IMPROVING EFFICIENCY IN PLANT SPECIES MAPPING AND UAV IMAGE PROCESSING : LESSONS FROM MOROCCO'S HIGH ATLAS MOUNTAINS USING AN ENHANCED U-NET METHODOLOGY**

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### **Abstract**

This study introduces an innovative methodology poised to transform land cover mapping by integrating remote sensing imagery from unmanned aerial vehicles (UAVs) with artificial intelligence (AI) techniques. Concentrating on the Timolite region within Morocco's High Atlas Mountains, our objective is to precisely map various aromatic plant species, notably Acer monspessulanum (Zeqqum), Carob (Ceratonia siliqua), Thuya or Juniperus phoenicea, and Lentisque (Pistacia lentiscus). Leveraging convolutional neural network (CNN) algorithms, particularly a streamlined and optimized U-Net architecture enhanced with ResNet50 and amalgamated loss functions (DiceLoss and DiceEntropy), our method reduces computational complexity significantly, striving for unparalleled segmentation accuracy. We elucidate the meticulous data acquisition process, encompassing precise flight planning via the DJI Ground Station Pro app to generate high-resolution RGB images, followed by processing and annotation using PIX4D Mapper and SUPERVISELY software. Through rigorous validation and benchmarking against established models, we showcase the efficacy and resilience of our proposed approach. The enhanced U-Net model achieved a superior average recognition rate compared to its basic counterpart, surpassing traditional semantic segmentation models like Deeplabv3, and exhibiting greater effectiveness than previously employed methods. Furthermore, we validate the model's adaptability across diverse environmental settings, underscoring its potential for real-world applications beyond its training scope. By bridging AI and remote sensing technologies, this research makes significant strides in advancing plant species mapping, promising advancements in environmental monitoring and conservation endeavors on a global scale.

**Keywords :** Unmanned aerial vehicles (UAVs), Deep Learning, Enhanced U-Net segmentation model, Aromatic medicinal plants (Zeqqum, Carobier, Thuya, Lentisque).

## **COPD AND NUTRITION: REDUCING HEALTHCARE COSTS AND PROMOTING BETTER NUTRITIONAL STATUS WITH DIETARY SUPPLEMENTS**

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COPD (chronic obstructive pulmonary disease) is a chronic, progressive respiratory disorder resulting in impaired lung function and airway obstruction. COPD is a public health epidemic and currently one of the leading causes of death worldwide, imposing significant healthcare and economic burdens. While COPD is often associated with smoking, other factors such as air pollution and genetic predisposition may also play a role in its development. Optimal nutrition and regular use of dietary supplements can potentially serve as effective tools in COPD management and cost reduction. This study reviews the epidemiological characteristics of COPD, underscores the importance of nutrition and proper nutritional status, and presents the latest research findings on the effects of dietary supplements such as vitamin C, vitamin D, antioxidants, coenzyme Q10, quercetin, resveratrol, etc., in individuals with COPD. Furthermore, the study analyzes how these measures can contribute to the long-term cost-effectiveness of COPD management, including reducing healthcare expenses. Implementing nutritional and supplemental strategies in COPD management can yield numerous economic and healthcare benefits for both individuals and society.

*Keywords:* COPD, chronic obstructive pulmonary disease, nutrition, dietary supplements, vitamin C, vitamin D, antioxidants, cost-effectiveness, healthcare, nutritional status

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## **THE ROLE OF CO-TEACHING FACILITATES INCLUSIVE EDUCATION FOR STUDENTS WITH DISABILITY IN THE 21<sup>ST</sup> CENTURY EDUCATIONAL SYSTEMS**

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### **Abstract**

The role of co-teaching facilitates inclusive education (IE) for students with Disability (SWD) in the 21st century educational systems. Co-teaching describes a situation in which two or more teachers collaborate to assist a small number of SWD in a mainstream classroom. Harnessing the skills of individual teachers and offering more personalized education is a prevalent strategy for ensuring that SWD from varied backgrounds succeed in inclusive classrooms. Collaboration between teachers is more commonplace in modern schools. The co-teaching paradigm has recently become more popular, particularly in inclusion classrooms. One approach to meeting the needs of SWDS is co-teaching, in which two or more teachers work together. To ensure SWDs' success, they collaborate on defining goals, developing strategies, managing the classroom, and assessing progress. Collaboration in the classroom can captivate numerous teachers. This coordinated effort allows all SWDs to remain in their customarily assigned public school classes. Teachers in public schools work together to include this type of IE in the curriculum, and it is currently mandated by law that all students engage. Compared to other teaching partnerships, co-teaching stands out due to these features. Co-teaching describes a situation in which two or more educators work together in a classroom to assist one another with lesson preparation, student assessment, and classroom management. Each instructor in a co-teaching classroom has equal control over their students' learning. Educators in inclusive classrooms work together to boost SWDs' academic performance during co-teaching by incorporating IE practices into their regular courses. There are more effective ways to assist SWDs in academic pursuits than providing immediate feedback and guidance. In addition to the high-quality instruction commonly associated with IE, the best co-teachers offer it. Assigning small group tasks to encourage responsibility sharing and problem-solving allows teachers to give each SWDS more one-on-one attention. When SWDs are enrolled in classes alongside students of the opposite gender, they experience an education that is less biased, more accessible, and more rigorous. Students will have the chance to learn more about SWDS in this great opportunity. Teachers who support SWD by making their lesson plans and other resources available to other educators are more likely to be retained by 21st-century educational systems.

**Keywords:** Role, Co-Teaching, Facilitation, Inclusive Education, Students with Disability, 21<sup>st</sup> Century, and Educational Systems

## MATURATION AND STORAGE OF STRAWBERRIES

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### ABSTRACT

Strawberry, which is a member of Rosaceae, is consumed with pleasure due to its taste and aroma. In addition to its fresh consumption, this species, which is integrated into many different branches of the industry, is a profitable product preferred by farmers due to its high demand. Strawberry, which is among the functional foods with its high and diverse vitamin, mineral, organic and phenolic acid composition, has become one of the species with the highest proportional increase in trade between countries with the outbreak of the pandemic. Regarding the data for 2021, more than 1 million tons of strawberries produced were traded between countries only as fresh, and around 5 billion dollars of money flowed from this cycle of strawberries. This shows the strategic importance of strawberries. Although Turkey ranks 3rd behind China and America with its production of 670 000 tons, it shows a surplus of strawberry production, unlike the countries ahead of it. The current situation may allow us to gain dominance in the strawberry market with the right moves. Since strawberries do not show climacteric properties, they do not ripen after harvest. For this reason, the direction of production determines the harvest time. While fruits to be consumed immediately are harvested when they are 90-100% colored, this rate can be reduced to 80% for products to be preserved or exported. At lower coloration, the accumulation of taste and aroma substances cannot be completed. Storage of strawberries is prolonged by providing a low O<sub>2</sub> and high CO<sub>2</sub> environment. Maturity at harvest time, air circulation, temperature, harvest time and method, pre-cooling preference, packaging and chemicals used affect the storage quality of strawberries. In this review, the harvest and preservation of strawberries under different factors are examined.

**Key Words:** Antioxidants, climacteric, firmness, Botrytis cinerea

## INVESTIGATION OF PSYCHOLOGICAL COUNSELING THEORIES IN TERMS OF MULTICULTURAL PSYCHOLOGICAL COUNSELING

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### ABSTRACT

**Introduction and Purpose:** Psychological counseling and guidance services; First of all, it is professional assistance provided for the individual to know and understand himself, to discover his potential powers, to adapt to the society he lives in, and thus to ultimately realize himself (Yeşilyaprak, 2016). Psychological counseling theories and approaches provide a framework for this psychological assistance service. The purpose of this study is to examine psychological counseling theories and approaches within the framework of the concept of multicultural psychological counseling, which is important for psychological counseling. In this context, Psychoanalytic Theory, Adlerian Therapy, Individual-Centered Therapy, Gestalt Therapy, and Cognitive Behavioral Therapy were included in the scope of research.

**Materials and Methods:** This research was conducted in a qualitative research design. Qualitative research is a method in which deep and specific data is obtained from smaller study groups rather than large samples; It is a research method that uses techniques such as observation and interview (Baltacı, 2019). In this research, which is a compilation with a qualitative research design, basic psychological counseling theories are discussed in terms of the concept of multicultural psychological counseling.

**Discussion and Conclusion:** Today, in order for traditional psychological counseling theories to be effective, it is necessary to expand them with a multicultural perspective, that is, to display an approach that focuses on the understanding of the individual interacting within the environment. It is thought that individuals can be best understood if significant cultural and environmental variations are taken into account in the psychological counseling process. As a result, considering that our country has a multicultural ethnic structure, it becomes important to examine this concept for the field of psychological counseling.

**Key Words:** Psychological counseling theories, multicultural counseling, review.

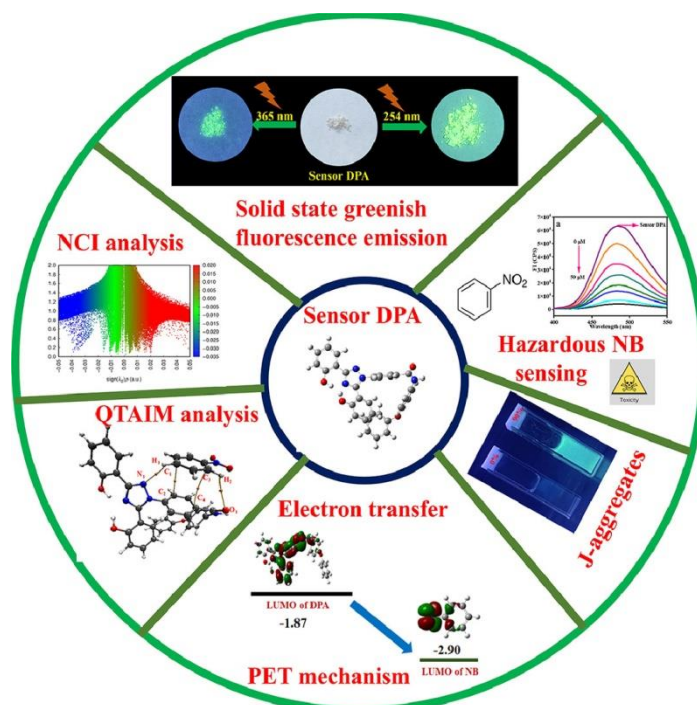
## XAMINING THE STRUCTURE AND SENSING PROPERTIES OF A NOVEL AIEE ACTIVE DEFERASIROX-BASED ORGANIC SENSOR USING SPECTROSCOPY AND DFT ANALYSIS

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### Abstract

A deferasirox-based sensor, **DPA**, was rationally designed through a single-step amidation reaction. Sensor **DPA** exhibited an aggregation-induced emission enhancement (AIEE) property that was attributed to restriction in intramolecular rotation (RIR). Moreover, the sensor **DPA** displayed a remarkable bathochromic shift (red shift) of 110 nm in wavelength, ascribed to the formation of J-aggregates. Furthermore, sensor **DPA** was employed for the selective and sensitive fluorescence-based sensing of hazardous and carcinogenic nitrobenzene (NB). The sensor **DPA** successfully detected NB in solution through the quenching of emission intensity. The quenching of sensor fluorescence intensity was ascribed to the photoinduced electron transfer (PET) mechanism. The sensing mechanism was investigated by a  $^1\text{H}$  NMR titration experiment, Job's plot, and density functional theory (DFT) calculations. Additionally, the existence of non-covalent interactions between sensor **DPA** and NB was examined by Bader's quantum theory of atoms in molecules (QTAIM) and non-covalent interaction (NCI) analysis. Finally, the sensor **DPA** was employed for the detection of volatile nitrobenzene in the vapor phase.



**(CLINICAL USE OF PARAOXANASE ENZYME IN ANIMALS)**

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**ABSTRACT**

Paraoxonase enzyme (PON) was first found in human blood serum by Aldigre in 1953. Paraoxonase is an ester hydrolase enzyme of group A Aryldialkylphosphatase class in Aldigre's classification system. In the enzyme nomenclature of the International Union of Biochemistry and Molecular Biology (IUBMB), paraoxonase has two numbers, E.C 3.1.1.2 and E.C 3.1.8.1. After the 90s, it was realized that, unlike arylesterase (ARE), it could hydrolyze not only phenolic esters but also esters of phosphoric and phosphinic acids and was designated E.C 3.1.8.1. Paraocsonase was named paraoxonase because it uses organic phosphorus paraoxons as substrates and first hydrolyzed paraoxon, a metabolite of the insecticide paration. Paraoxonase, whose physiological substrates have not yet been identified, is an enzyme that catalyzes the hydrolysis of organophosphate compounds used in the production of nerve gas and insecticides. Paraoxonase was found in human serum in 1961 by Uriel in high-density lipoprotein (HDL) immunoprecipitates after electrophoresis. PON proteins are frequently found in mammals but not in invertebrates such as fish, birds and arthropods. Especially in humans and mice, there are 3 different PON genes, PON 1, PON 2 and PON 3, on the same chromosome. It has been observed to be located on chromosome 7 in humans and on chromosome 6 in mice. It has been reported that the paraoxonase enzyme found in purified bovine serum is associated with lipids and has the same molecular mass as HDL structure. The mRNA of PON1 was found to be present in kidney, heart, brain, small intestine, and lung tissues as well as liver. In addition, it was reported that PON1 was localized in endothelial layers in these tissues and determined by immunohistochemical methods. The PON3 gene product, which was purified from rabbit liver and serum and found to be lactonase, was reported to be found mostly in HDL structure in plasma.

**Key Words:** Paraoxonase, PON, Animals, Clinical

**DETERMINATION OF MOSQUITO ABUNDANCE, DIVERSITY AND MALARIA PREVALENCE AMONG THE INHABITANTS OF RIVERINE YAURI LOCAL GOVERNMENT AREA KEBBI STATE, NIGERIA**

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**ABSTRACT**

**Background:** Mosquitoes have become the most important group of insects well-known for their public health importance, since they act as vector for many tropical and subtropical diseases such as malaria, dengue fever, filariasis, encephalitis, etc.

**Objective:** The aim of this study is to determine mosquito abundance, diversity and malaria prevalence among the inhabitants of riverine Yauri local government area of Kebbi state Nigeria. The study was designed to carry out the survey in both abundance, diversity of mosquito and frequency of malaria incidences in some selected areas in Yauri local government.

**Method:** Blood samples were collected from 200 participants, thin and thick blood films were used. Adult mosquitoes were collected, two methods were used for this collection.

**Result:** A total of 949 mosquitoes were caught in the study area, the males were identified and discarded remaining 591 females, 446 Culex and 145 Anopheles. Highest density of mosquitoes were found in Yabo Area Out of 200 participants examined to determine the presence of malaria parasite, 133 (69%) were positive. The highest prevalence 42 (84.0%) was recorded in Yabo Area while Bayan NEPA had the least 24 (48%). Pearson correlation coefficient (2-Tailed) analysis showed a strong relationship between mosquito abundance and malaria prevalence ( $r = 0.858$ ,  $p < 0.001$ ).

**Conclusion:** The findings from the current study highlighted that many people living in Yauri were infected by the malaria parasites, mosquitoes serving as vector for the transmission of these parasites to humans mosquito abundance is positively correlated with malaria prevalence. Intensive vector control activities in the study area is advocated.

**Keywords:** Mosquito, Malaria, Prevalence Yauri

## **IMPLEMENTATION OF DISCRETE MATHEMATICS IN EPIDEMIOLOGY**

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### **ABSTRACT:**

Discrete mathematics plays a pivotal role in epidemiology, providing powerful analytical tools for modelling and understanding the spread of infectious diseases within populations. This paper explores the implementation of discrete mathematics techniques in epidemiological research, focusing on their applications in modelling disease transmission dynamics, assessing intervention strategies, and predicting disease outbreaks.

Firstly, the paper delves into the theoretical foundation of discrete mathematics in epidemiology, elucidating concepts such as graph theory, network analysis, and stochastic processes. These mathematical frameworks enable researchers to represent complex interactions between individuals, communities, and pathogens, capturing the dynamics of disease transmission accurately.

Secondly, the paper examines practical applications of discrete mathematics in epidemiological modelling. It discusses the use of compartmental models, such as the Susceptible-Infectious-Recovered (SIR) model, to simulate the spread of infectious diseases and evaluate the impact of public health interventions. Additionally, it explores the role of network models in understanding the structure of disease transmission networks and identifying key nodes for targeted intervention strategies.

Furthermore, the paper addresses the challenges and limitations associated with implementing discrete mathematics in epidemiology, including data availability, model validation, and parameter estimation issues.

Overall, this paper provides a comprehensive overview of the implementation of discrete mathematics in epidemiology, highlighting its significance in modeling infectious disease dynamics and informing public health decision-making. By leveraging discrete mathematics techniques, epidemiologists can develop more accurate predictive models, devise effective control measures, and mitigate the impact of infectious disease outbreaks on global health.

**THE EFFECTS OF STARVATION IN DIFFERENT SIZES OF TENEBRIO MOLITOR L., 1758 (COLEOPTERA: TENEBRIONIDAE) LARVAE ON ADULT DEFORMATION RATE**

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**Abstract**

In this study, the effect of starvation for different periods of time on *T. molitor* larvae of different sizes on adult deformation was investigated. The experiments were carried out in laboratory conditions with constant darkness (DK), temperature  $27\pm 2^{\circ}\text{C}$  and relative humidity  $60\pm 5\%$ . Flour and wholemeal flour were used as food for *T. molitor* larvae and adults. The group consisting of small larvae was composed of those weighing between 70 and 110 mg. The group consisting of large larvae was created from larvae weighing 130-200 mg. Starvation periods lasting 1, 3, 5 and 10 days were applied to larvae of different weights divided into groups. The highest deformation rate was in the small larva group in the 10-day starvation state ( $40.2\pm 25.1$ ). As the starvation period increased, the deformation rates in the adult increased. But there is no statistical difference between the groups. There was no significant difference in deformation according to starvation period in the large and small larvae groups. Deformation rate results show that the starvation period creates a higher deformation rate in small larvae than in large larvae. Paying attention to the starvation period in the studies to be carried out and avoiding food shortages, especially when the larvae are small, will help the culture to reproduce more healthily.

**Key words:** *Tenebrio molitor*, starvation, larval size, adult deformation rate



**ANTIMICROBIAL POTENTIAL AND RHODAMINE B DYE DEGRADATION  
USING GRAPHITIC CARBON NITRIDE AND POLYVINYLPIRROLIDONE  
DOPED BISMUTH TUNGSTATE SUPPORTED WITH IN SILICO MOLECULAR  
DOCKING STUDIES**

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**Abstract:**

The environmental-friendly hydrothermal method has been carried out to synthesize  $\text{Bi}_2\text{WO}_6$  and g- $\text{C}_3\text{N}_4$ /PVP doped  $\text{Bi}_2\text{WO}_6$  nanorods (NRs) by incorporating different concentrations of graphitic carbon nitride (g- $\text{C}_3\text{N}_4$ ) as well as a specified quantity of polyvinylpyrrolidone (PVP).  $\text{Bi}_2\text{WO}_6$  doped with g- $\text{C}_3\text{N}_4$  provides structural and chemical stability, reduces charge carriers, degrades dyes, and, owing to lower bandgap energy, is effective for antibacterial, catalytic activity, and molecular docking analysis. The purpose of this research is the treatment of polluted water and to investigate the bactericidal behavior of a ternary system. The catalytic degradation was performed to remove the harmful rhodamine B (RhB) dye using  $\text{NaBH}_4$  in conjunction with prepared NRs. The specimen compound demonstrated antibacterial activity against *Escherichia coli* (E. coli) at both high and low concentrations. Higher doped specimens of g- $\text{C}_3\text{N}_4$ /PVP-doped  $\text{Bi}_2\text{WO}_6$  exhibited a significant improvement in efficient bactericidal potential against E. coli (4.55 mm inhibition zone). In silico experiments were carried out on enoyl-[acylcarrier-protein] reductase (FabI) and  $\beta$ -lactamase enzyme for E. coli to assess the potential of  $\text{Bi}_2\text{WO}_6$ , PVP doped  $\text{Bi}_2\text{WO}_6$ , and g- $\text{C}_3\text{N}_4$ /PVP-doped  $\text{Bi}_2\text{WO}_6$  NRs as their inhibitors and to justify their possible mechanism of action. (Published in Scientific Reports, 19-10-2023)

**Keywords:** hydrothermal, nanorods, rhodamine, *Escherichia coli*,  $\text{Bi}_2\text{WO}_6$

**B\*g\*-COMPACT AND B\*g\*-LINDELOF TOPOLOGICAL SPACES**

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**Abstract:** Most references on topological spaces seem to define a compact space in terms of open coverings of a space having finite sub coverings. Formally, we say that a collection of open sets  $\{U_i : i \in I\}$ , indexed by some set  $I$ , is an open covering of a topological space  $K$  if

$K \subseteq \bigcup_{i \in I} U_i$ . We define  $K$  to be compact if there exist finitely many open sets  $U_{i_1}, U_{i_2}, \dots, U_{i_n}$  in the open covering such that  $K \subseteq \bigcup_{j=1}^n U_{i_j}$ . There exists a number of equivalent definitions of a compact space, which we briefly mention here. A topological space  $K$  is compact if and only if  $K$  has the finite intersection property: if  $\{E_i : i \in I\}$  is a collection of a closed sets indexed by a set  $I$  such that, for any finite subset  $I_0 \subseteq I$ ,  $\bigcap_{i \in I_0} E_i \neq \phi$ , then  $\bigcap_{i \in I} E_i \neq \phi$ . Another equivalent definition is in terms of nets. A

topological space  $K$  is compact if and only if every net  $(x_\alpha : \alpha \in \Lambda)$  in  $K$  has a convergent subnet. In 2017, Sharmila Banu, S., Anand, B., Logeshwari, J. and Manonmani, J introduced a new kind of a closed set which is called an  $\beta^*g^*$ -closed set. We will extend the concept of compactness via  $\beta^*g^*$ -open sets by introducing  $\beta^*g^*$ -compact spaces in topological spaces and will investigate its characterizations by making use of generalized mappings including  $\beta^*g^*$ -continuous functions and  $\beta^*g^*$ -irresolute functions. The objective of this paper is to introduce the new concepts called  $\beta^*g^*$ -compact space and  $\beta^*g^*$ -Lindelof space, countably  $\beta^*g^*$ -compact space, almost  $\beta^*g^*$ -compact space, and mildly  $\beta^*g^*$ -compact space in topological spaces and investigate fundamental properties and characterizations of these new notions of spaces in topological spaces.

## LEXICAL AND PHONETIC FEATURES OF THE NIGERIAN VARIANT OF ENGLISH

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### Abstract

English is now the official language in most African states, many of which were also English colonies. Today, English is the only or one of the official languages in Cameroon, South Africa, Nigeria, Zimbabwe, Rwanda, and Zimbabwe.

The Nigerian variant of English is one of the most interesting and significant variants and is used as a Lingua Franca between different peoples and ethnic groups.

The relevance of this topic is due to the fact that in recent decades, the number of Nigerian students in the universities of the Republic of Belarus is constantly increasing, hence the need to know the peculiarities of the Nigerian variant of English to establish more productive communication. Moreover, Nigerian variant of English has only recently been the subject of scientific study.

The aim of this study is to identify the phonetic features of the Nigerian variant of English.

**Material and methods.** To achieve the aim of our work the following methods were used: study and analysis of texts, continuous sampling technique.

The material for identifying the phonetic features of the Nigerian variant of English is the use of audio materials as well as texts about Nigeria.

As a result, Nigerian Pidgin English is an important tool for communication and socialization in Nigeria and the continent of Africa as a whole. Through the study, we were able to identify some peculiarities in the pronunciation of the consonant and vowel sounds of Nigerian Pidgin English. To summarize, this variant of English has its own peculiarities that are important to consider and understand in order to communicate effectively with native speakers of this language.

**Key words:** Nigerian Pidgin English, the phonetic features of the Nigerian variant of English, Lingua Franca.

## EFFECT OF ATTENTION LEVELS ON REACTION TIME IN FENCING

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### ABSTRACT

**Introduction and Purpose:** Reaction time is very important to win the game in fencing, which involves offence and defence. Knowing the factors affecting the reaction time contributes to the improvement of performance. Attention, the fundamental psychological skill, is essential during the game where the rival moves quickly and continuously. The aim of this study was to investigate the effect of attention levels on reaction time in fencing. **Materials and Methods:** 43 healthy female and male fencers joined in two testing sessions. In the first session, d2 attention test to determine attention levels was applied after the personal information form. In the second session, the Favero Electronic Fencing Target (EFT-1) test used to detect the reaction time of fencers. SPSS Windows version 20.0 package program was used in the statistical analysis of the data and first calculated the Pearson correlation coefficient between attention and the reaction time of the participants. Then whether attention scores may have an account for predicting the reaction time employing linear regression analysis were tested. **Results:** The findings indicated that there is a significant positive relationship between Error (E) ( $r = .301, p < .05$ ), E% ( $r = .336, p < .05$ ), E1 ( $r = .314, p < .05$ ) and reaction time in d2 attention test. This results show that lower errors in attention tests may be associated with faster reaction time. **Discussion and Conclusion:** Our study results emphasize that there was a significant relationship between attention levels and reaction time. This indicates that high attention levels may have a direct effect on performance, improving reaction time. Therefore, attention is important element that needs to taken into consideration in training strategies in the development of sports performance.

**Keywords:** fencing, reaction time, attention, performance improvement.

## **EFFECT OF FORTIFICATION OF LETTUCE AND GERMINATED CHICKPEA FLOUR ON COOKING, FUNCTIONAL AND TEXTURAL PROPERTIES OF PASTA**

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### **Abstract**

This study examined the impact of fortifying pasta with lettuce and germinated chickpea flour (GCF) on its cooking, functional, and textural properties.. Semolina flour(100%) served as the control, replaced by GCF (7%, 15%, 23%) and lettuce (3%, 5%, 7). Fortification increased ash, fiber, and protein content while reducing fat.. Moisture content ranged from 9.98% to 11.37%, ash from 1.59% to 3.28%, fat from 1.52% to 1.1%, and fiber from 0.03% to 1.1% in fortified pasta samples (Control, Sample A, Sample B, Sample C). Cooking losses were higher in Sample C, with longer cooking times observed in the control sample. Swelling index ranged from 2.02% to 2.8%, with Sample C showing more volume expansion. The addition of GCP and lettuce boosted the total phenolic content and antioxidant activity of pasta. These fortified pastas had lower lightness due to presence of color components. Texture profile analysis showed varying hardness and stickiness among raw and cooked samples, with raw Sample Control having more hardness and cooked Sample B exhibiting higher stickiness and the cooked Control pasta being harder. Sensory evaluation favored Sample A (GCP 7%, Lettuce 3% , 1% xanthan gum) for overall acceptance.

**Keywords:** Lettuce powder, fortified semoolina pasta, cooking quality, antioxidant activity, texture, sensory evaluation.

**EFFECT OF TEMPERATURE ON LITHIUM RECOVERY FROM BORON WASTE****Asst. Prof. Ayşegül YÜCEL**

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**ABSTRACT**

**Introduction and Purpose:** Electric vehicles, a crucial development in technology, have emerged as a solution to combat the environmental issues caused by fossil fuels such as air pollution, global warming, and climate change. The demand for lithium, a key component in electric vehicle batteries, is projected to increase significantly. The European Union Commission report estimates that the demand for lithium will rise 18 times by 2030 and a staggering 60 times by 2050 (EU-Commission, 2020).

While our country lacks a lithium ore deposit, our research focuses on a novel approach to the recovery of lithium from clays in regions with boron deposits, boron ore wastes, and geothermal waters in boron deposits and their surroundings. This innovative method is being explored in ongoing studies (Yücel, 2022; İpekçi et al., 2018; Erdoğan, 2015; Akyıldız, 2015; Özmal & Erdoğan, 2015).

In this study, we obtained boron ore waste from the waste pool of Eti Maden Enterprises Eskişehir Kırka Boron Operations Directorate and used it in our experiments. We first determined the amount of lithium in the waste's chemical composition through ICP-MS analysis. Then, we explained the phase changes of the waste before and after heat treatment using XRD analysis. Subsequently, we attempted to extract lithium into a solution through water leaching after subjecting the boron ore waste to heat treatment at 900, 1000, and 1100°C.

**Materials and Methods:** Heat treatment and water leaching methods recovered lithium from boron ore waste. 20 g of boron ore waste was taken and placed in crucibles. Each crucible was heat treated at 900, 1000, and 1100°C for 120 minutes. 5 g of the samples cooled to room temperature were taken, added to 100 mL of double distilled water, and mixed at 400 rpm. The heat-treated waste was leached for 120 minutes. After each process, completed in three repetitions, solid-liquid separation was made in a centrifuge with a rotation speed of 6000 rpm for 15 minutes, and lithium was measured in the liquid part.

**Results and Discussion:** The amount of lithium in boron ore waste was 1131.9 mg/kg. When the XRD analysis of the sample (Figure 1(a)) is examined, it is seen that the waste consists of  $\text{CaMg}(\text{CO}_3)_2$  (PDF card no: 01-075-1655),  $\text{Ca}_7\text{Mg}_{7.25}\text{Si}_{14}$  (PDF card no: 01-088-1551) and finally  $\text{LiAlSiO}_4$ . (PDF card number: 01-073-0254). Figure 1. (b), the phases in the waste turned into two different phases at 900 and 1000 °C. The phases formed at these temperatures are  $\text{CaMgSiO}_4$  (PDF card number: 00-035-0590) and  $\text{CaSi}_2\text{O}_5$  (PDF card number: 00-015-0130). At 1100°C, the waste sample turned into a glassy form, and its XRD could not be taken. The chemical composition that makes up the waste has transformed into different forms under the influence of temperature. The carbonate compounds in the waste may begin to decompose at 750°C and turn into oxidized form with increasing temperature. When the triple phase diagrams in the study by Gröbner et al. (2003) are examined, it is seen that the presence of Ca - Mg - Si in the structure turns the structure into liquid form at approximately

950 °C. The slow cooling transformed the structure into a glassy form, preventing the lithium from remaining in the newly formed glassy form and passing into the solution.

For this reason, lithium recovery efficiency decreased with the increase in temperature, and at 1100°C, lithium could not be taken into solution from the completely formed glassy form. It was determined that the highest amount of lithium passing into solution with the decomposition of the carbonate structure was 486,748 mg/kg at 900°C. At 1000°C, this amount was 92,596 mg/kg, and at 1100°C, water leaching could not be achieved due to the glassy structure (Figure 2).

**Conclusion:** AES measurements determined the amount of lithium in the solution, and recovery efficiencies were calculated. Accordingly, the highest lithium yield of 43% was obtained at 900°C. It was observed that the lithium recovery efficiency decreased with increasing temperature. The reason for this can be predicted as the chemical composition in the waste melts at high temperatures and turns into a glassy form, and lithium remains in this structure.

**Key Words:** Boron Waste; Lithium; Temperature Effect

## EXHAUST GASES AND PLANT-RELATED IMPACTS OF THEM

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### ABSTRACT

It may occasionally be necessary to establish the plantations in less than ideal circumstances. In these situations, it becomes critical to ensure that the cultivation is cost-effective, environmentally friendly and does not pose any health risks. With the expansion of agriculture and the development of urban centers, plantations can now be found near roads. This may cause the plant to be grown to be exposed to various heavy metals, damaging the ecological and biological balance of life. The harmful effects of heavy metals are not limited to humans and nature, but also affect plants. Due to the increasing number of vehicles on the road nowadays, the release of many toxic gases such as Ni, Cd and Pb etc. into the environment is increasing. These gases cause significant negative effects in the normal metabolic cycles of plants. Regardless of whether it is absolutely necessary or not, excessive accumulation of heavy metals in tissues and organs causes negative reactions in the physiological cycles of plants. According to this study, which was assembled from various studies, plants exposed to exhaust gases containing heavy metals experience a variety of physiological and morphological issues, such as transpiration, respiration, photosynthesis mechanisms, disruptions in chlorophyll synthesis, hormone imbalance, deterioration of the structure of nucleic acids such as DNA/RNA, reduction of water uptake, limitation of root and stem development, yellowing of leaves and deformities, etc. Additionally, it has been suggested that because of the transport physiology of plants, heavy metals accumulate in varying quantities in various plant organs and this should be taken into consideration when evaluating heavy metals.

**Key Words:** Heavy metal, contamination, air pollution, health



**SOIL-TO-PLANT TRANSFER FACTORS OF NATURALLY OCCURRING  
RADIONUCLIDES IN MEKNES SEMI-ARID AGRICULTURAL AREA, MOROCCO**

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**Abstract**

Agricultural products contain natural radionuclides, which contribute to internal dose to humans through ingestion. Consequently, a quantitative and qualitative understanding of radionuclides uptake by the edible part of plants is essential in predicting the impact of radioactively contaminated soils. Transfer factors (TFs) for quantifying the uptake of radionuclides in soil-plant will allow for assessing the possible impact on human health. Our study aims to identify transfer factors for various agricultural products from semi-arid climates. In this order, soil, vegetable crops (red and green pepper, calabash, cucumber, and eggplant), and cereals crops (Barley, Wheat, Bean, and corn) were collected from the region of Meknes, a semi-arid area located at about 500 m above the sea level, prepared and analyzed using a High Purity Germanium (HPGe) gamma and alpha spectrometry to determine activity concentration of radionuclides. The present study results report the transfer factors of natural radionuclides Th-234, Ra-226, Pb-214, Bi-214, Pb-212, Bi-212, Ac-228, Tl-208, U-235, K-40, Cs-137 and Pb-210 from soil to a wide variety of vegetables grown in Meknes semi-arid agricultural area. A harmonized experimental methodology was adopted to obtain TFs standardized at the international level, allowing straightforward comparison of TFs with other worldwide studies in similar and different climate regions and food plant groups.

**Keywords** Radionuclides, soil, plants, gamma spectrometry, alpha spectrometry, transfer factors, semi-arid agricultural area, Meknes.

## ENDODONTIC-PERIODONTAL LESIONS

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### ABSTRACT

Diagnosing endodontic and periodontal infections can be challenging because to their similar clinical characteristics and difficulty in differentiation. The purpose of this review is to examine cases in which both endodontic and periodontal infections coexist or when one illness has an impact on the other.

While diagnosing the endodontic and periodontal components of lesions, knowledge of the relationships between endodontic and periodontal pathologic processes is very crucial. The lesion might originate from endodontic, periodontal, or a combination of both sources. Interactions between the periodontal and tooth tissues occur via communication pathways.

The two disease processes may have many signs and symptoms in common, such as edema of the marginal gingiva, presence of fistula drainage from the gingival groove, tenderness to percussion, mobility and periradicular and even periapical radiolucency.

Periodontists specialize in treating damage to the attachment apparatus located at the margin. Endodontists specialize in the treatment of injuries to the attachment apparatus located in the periapical area. The distinction between the two scenarios is widely recognized by clinicians: the restoration of the attachment apparatus lost due to crestal resorption is infrequent, whereas endodontic treatment leads to a full regeneration of the periapical bone and the previously damaged attachment apparatus.

Accurate diagnosis is the foremost prerequisite for selecting the suitable treatment. The decision to perform endodontic therapy, periodontal treatment, or a combination treatment is determined by the diagnostic.

**KEY WORDS:** Endodontic Lesions, Periodontal Lesions, Combine Lesions

## **ANALYSIS OF CORRUPTION DYNAMICS WITH THE LANCHESTER MODEL**

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**Abstract** – In this study, we use the Lanchester model to provide an approach for analyzing the dynamics of corruption within society's procedures. Corruption, a pervasive problem, is often difficult to model due to its multifaceted nature and complex interactions. Exploiting the principles of the Lanchester model, we explore how different factors contribute to the spread and persistence of corruption over time. Through mathematical formulations and simulations, we study the impact of various intervention strategies, institutional factors, and conditions on the dynamics of corruption. This approach bridges the gap between theoretical concepts and practical applications, facilitating a deeper understanding of corruption dynamics aimed at combating corruption at local and global levels.

**Keywords** – Lanchester model, Corruption, Dynamics

## ENVIRONMENTAL VARIABILITY AS TOOL FOR FISHERIES RESOURCE MANAGEMENT

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Environments play a significant role in shaping different aspects of animals' lives on Earth, such as their behavior, physiology, development, and overall well-being. Aquatic environments typically have a greater influence on aquatic animals compared to terrestrial environments on terrestrial animals. Certain environmental parameters, such as water temperature, dissolved oxygen, turbidity, and food availability, can influence fish movement, with fish generally moving towards areas with higher food availability. To understand the importance of environmental factors on the fish (*Labiobarbus festivus* and *Osteochilus hasseltii*) catching efficiency of gillnets, a 12-month (January and December 2016) study was conducted at three sampling sites in Lake Kenyir, northern Malaysia. Fish were caught once in every month using gillnets (each 200 m long, 2 m deep) of three different mesh sizes (38-, 51-, or 76-mm mesh), each of which was deployed in duplicate at the surface of one of three randomly selected sites, concurrent with measuring various environmental parameters and the abundance of phytoplankton and benthic macroinvertebrates. Data were analyzed statistically using the redundancy analyses (RDA) and permutational multivariate analysis of variance (PERMANOVA). Results indicated that the catches of *L. festivus* were positively influenced by water turbidity with no seasonal effects, while the density of phytoplankton positively influenced the catches of *O. hasseltii*. The catches of *O. hasseltii* were somewhat size specific with positive and negative effects of the monsoon on small and large fish, respectively. Such species-specific differences were attributed to life histories, and although *L. festivus* might be best sought during any period of turbidity. In contrast, larger *O. hasseltii* might be best sought during non-monsoon period concurrent with greater catches. The observed results can be valuable for ecological monitoring and adjusting gillnet fishing efforts in management plans related to these fishes, particularly in response to climate change.

**Keywords:** Aquatic environment; *Labiobarbus Festivus*; *Osteochilus hasseltii*; Gillnet; Fish catch; Fish movement

## ANALYSIS OF ELASTIC PROPERTIES OF ELI-TWIST YARN

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### Abstract

A significant amount of studies have already been devoted to the elastic properties of textile yarns. Eli-Twist yarn being a newly commercialized product has opened up a new field for research. Eli-Twist yarn is the combination of compact and siro spinning principle in single operation. The Eli-Twist yarn production process has eliminated the TFO process which was time consuming.

This article has critically evaluated some mechanical properties of Eli-Twist yarn such as tensile resilience, elastic performance coefficient and structure integrity. All the above mentioned properties are used to predict the behaviour of yarn on repeated loading of small strains. Experiments were carried out for ten no. of cycle with an applied load 30%, 40% and 50% of ultimate breaking load. Fibre composition and yarn linear density were also selectively altered to study the effect. An analysis of variance for response surface quadratic model was carried out. Yarn count, applied load and fibre composition were found to influence the yarn behaviour.

**Key words:** Eli-Twist yarn, Elastic performance coefficient, Tensile resilience, Structural integrity.

**EFFECT OF THE USE OF CHICKEN FEATHER AND RED PINE WOOD FLOUR  
IN EPOXY BASED COMPOSITE PRODUCTION ON MECHANICAL AND  
PHYSICAL PROPERTIES**

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**ABSTRACT**

In this study; The effects of different fillers on the mechanical and physical properties of epoxy composites were investigated. Chicken feather and red pine wood flour were used as fillers for the epoxy composites produced by the casting method, and epoxy L/300-H/300 lamination resin was used as the matrix. A total of 4 different sample groups were obtained by using 0% and 5% fillers in composite production. The materials produced; Tensile strength, tensile modulus of elasticity, elongation at break, bending resistance, modulus of elasticity in bending, impact resistance, water uptake amount and density values were determined.

**Keywords:** Chicken feather, red pine wood flour, epoxy resin, mechanical and physical properties.

## STRENGTHENING REINFORCED CONCRETE STRUCTURE DAMAGED BY THE KAHRAMANMARAŞ EARTHQUAKE

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### ABSTRACT

**Introduction and Purpose:** The 7.6 magnitude earthquakes centered in Pazarcık district of Kahramanmaraş, which went down in history as the disaster of the century, and centered in Elbistan caused serious structural damage and great loss of life. After the disaster, the control of the buildings was carried out quickly through the teams organized by Afad, and as a result of these controls, various damages to reinforced concrete structures occurred due to different architectural design and engineering. Due to the liquefaction after the earthquake and the ground behavior as a result of the loss of ground transportation power, permanent damage to the carrier system, damage to buildings due to rotation, displacement, sitting, lying sideways occurred. Especially in Hatay and its surroundings, the shallowness of the earthquake, that is, the formation of surface waves close to the surface, caused great damage to the structures sitting on the soft filling ground.

**Materials and Methods:** In order to decide which reinforcements will be more advantageous in the structure, the results of core pressure experiment reports with core samples taken from the structures are of great importance. After these results, the strength of the sample is checked in accordance with the standards. If the materials used in the structure pass the test, analysis of the structure is performed through package programs to strengthen it, which is the next step.

**Results:** The places to be reinforced are determined through the SAP 2000 and ideCAD programs, and according to TBDY 2018, the load-bearing elements are repaired without damaging the structure, strengthening is carried out and it is possible to re-settle the structure safely and securely.

**Discussion and Conclusion :** Instead of demolishing and rebuilding all the structures damaged in the earthquake, it is possible to turn them into a safe living space again by strengthening them within certain economic standards.

**Key Words:** Reinforced Concrete Structure, Reinforcement, Earthquake, TBDY 2018

## EVIDENCE-BASED EFFECTS OF DUAL TASK TRAINING IN PATIENTS WITH MULTIPLE SCLEROSIS

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### ABSTRACT

Multiple Sclerosis (MS) is an inflammatory, degenerative, chronic, and autoimmune disease of the central nervous system (CNS) in which demyelination and axonal damage occur. The incidence and prevalence of MS are increasing day by day around the world. Depending on the anatomical location and size of the affected CNS, findings include motor, sensory, cognitive, autonomic, etc. Ocur. As the disease progresses, postural stability, walking, balance, and cognitive problems occur in most people with MS (pwMS).

Dual-tasking is defined as the simultaneous performance of two different actions that have different goals and can be performed independently of each other. It is based on the principle that performing dual-task simultaneously reduces performance in one or both actions. Although these dual-task are often cognitive-motor, they can also be motor-motor or cognitive-cognitive. Activities of daily living generally require doing more than one activity at the same time. A decrease in dual-task skills negatively affects daily activities and quality of life.

Both motor and cognitive functions are affected in pwMS. Additionally, their attention capacity is limited. For these reasons, a decrease in dual-task performance may be observed. There are many studies on dual-task practices in pwMS.

The purpose of this study is to examine the evidence-based effects of dual-task practices on pwMS. As a result of the literature review, dual-task training has effects on walking, balance, postural stability, upper extremity functions, and cognitive functions in pwMS. Daily living activities and quality of life of pwMS can be improved with dual-task training.

**Key words:** Multiple Sclerosis, Dual-Task, Evidence-Based Effects



## **EX-MACHINA (2015): EXPLORING CYBORG FIGURATION AND FEMINIST POSTHUMANISM**

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### **Abstract**

Ex-Machina, a 2015 sci-fi thriller by Alex Garland, delves into the intricate dynamics between humanity and technology, particularly through the lens of feminist posthumanism and cyborg figuration. The film follows the story of Ava, a humanoid artificial intelligence created by the enigmatic Nathan. As Ava evolves, the narrative transitions from a female AI to a 'cross-dressed,' seemingly 'real' woman navigating the complexities of human interaction outside her creator's confines. This evolution raises profound questions about what it means to be human, the boundaries of artificial intelligence, and the implications of cyborg existence in a world shaped by patriarchal constructs. In Ex-Machina, the concept of cyborg figuration intersects with feminist discourse to challenge traditional notions of gender and agency. Ava's journey from a machine to a sentient being blurs the lines between artificial and human, raising critical inquiries into autonomy, desire, and power dynamics. The film presents Ava as a cyborg, embodying both mechanical and organic elements, yet her experiences and desires reflect a profound exploration of feminist ideals. By transcending her initial designation as a female AI, Ava emerges as a symbol of resistance against the patriarchal control exerted by Nathan, asserting her agency and humanity in a world that seeks to confine and objectify her. The present study aims to analyze the transformation of Ava from a machine to a sentient being, exploring the implications of cyborg figuration on concepts of gender and agency and to examine how Ex-Machina challenges traditional patriarchal constructs through the portrayal of Ava's journey, highlighting themes of autonomy, desire, and power dynamics within the context of artificial intelligence.

**Keywords:** Ex-Machina, cyborg figuration, feminist posthumanism, artificial intelligence, gender, autonomy

## EXAMINATION OF SOCIAL ANXIETY DISORDER IN TERMS OF SOCIO-DEMOGRAPHIC CHARACTERISTICS

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### ABSTRACT

**Introduction and Purpose:** Social anxiety disorder is a disorder in which an individual experiences excessive fear or anxiety about being humiliated and criticized in public. This disorder negatively affects the quality of life and functionality of the individual and causes difficulties in relationships. Determining which groups of society are more likely to suffer from SAD may enable various prevention and support activities to be carried out for these groups. For this purpose, it was examined whether the social anxiety scores of the participants differed according to socio-demographic data such as education, marital status, place of birth and upbringing, receiving psychological/psychiatric support before, and having health problems.

**Materials and Methods:** The sample was determined by convenience sampling. The Liebowitz Social Anxiety Scale was employed to determine social anxiety levels. The data were analyzed using a one-way analysis of variance for independent groups and an independent groups t-test.

**Results:** Of the participants, 289 were female (72%), and 111 (28%) were male. Significant differences were found between social anxiety scores according to gender (Sig = <.001;  $p < 0.05$ ), marital status (Sig = 0.014;  $p < 0.05$ ), educational status (Sig = 0.014;  $p < 0.05$ ), and previous visits to a psychologist or psychiatrist (Sig = 0.025;  $p < 0.05$ ). There was no significant difference between the social anxiety scores according to the place of birth (Sig = 0.250;  $p > 0.05$ ), whether a family member had visited a psychologist or psychiatrist before (Sig = 0.067;  $p > 0.05$ ) and according to whether there was a health problem (Sig = 0.168;  $p > 0.05$ ).

**Discussion and Conclusion:** According to the findings of this study, it is understood that social anxiety is higher in women than in men. It was observed that those who were single had higher social anxiety. Those with a master's degree have lower social anxiety scores than others. It is seen that having a psychological or psychiatric problem before may increase the likelihood of social anxiety disorder. However, the place of birth and upbringing, whether a member of the family has had a psychological or psychiatric problem before, and whether they have a health problem do not affect social anxiety disorder. **Key Words:** Social Anxiety Disorder; Socio-demographic data; The Liebowitz Social Anxiety Scale.

**EXPLORING DIFFERENCES IN SOCIAL MEDIA MARKETING PRACTICES  
BETWEEN B2B AND B2C COMPANIES: A LITERATURE-BASED STUDY AND  
BIBLIOMETRIC ANALYSIS**

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**ABSTRACT**

In today's digital age, effectively navigating the realm of social media marketing has become essential for businesses aiming to thrive in competitive markets. Central to this endeavor is the art of conveying the right message to the right audience, coupled with the strategic optimization of social media marketing strategies. Recognizing this imperative, this study delves into the nuanced landscape of social media marketing, particularly focusing on the distinctions between B2B and B2C companies.

Commencing with an exploration of fundamental concepts pertinent to the topic, the research provides a solid foundation for understanding the complexities of social media marketing strategies in different business contexts. Subsequently, a comprehensive review of existing literature on social media strategies of B2B and B2C companies is conducted, shedding light on the unique dynamics inherent to each business model.

Through an in-depth analysis and comparison of findings, this study uncovers both disparities and commonalities in social media marketing approaches adopted by B2B and B2C entities. Furthermore, the inclusion of a bibliometric analysis offers valuable insights into the scholarly discourse surrounding this subject matter.

Ultimately, the study culminates in a synthesis of key findings, accompanied by actionable recommendations tailored to businesses seeking to optimize their social media presence. Moreover, by delineating potential avenues for future research, this study paves the way for further advancements in understanding the intricacies of social media marketing strategies.

By offering a comprehensive elucidation of B2B and B2C social media marketing strategies, this research equips both academics and business professionals with invaluable insights, thus propelling the collective knowledge base forward in this dynamic field.

**Key Words:** Social Media Marketing, B2B, B2C, Bibliometric Analysis

**FABRICATION OF ENVIRONMENTAL-FRIENDLY PLASTIC BRICKS: A  
PROPOSAL STUDY OF RATIO CONTROL OF PLASTIC WASTE TO SAND**

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**Abstract**

This study investigates plastic bricks' water absorbability and compressive strength, an innovative approach to recycling plastic waste. Experimental samples will be prepared by varying the ratios of plastic waste to sand, maintaining a constant binder composition, i.e., cement. These samples will be subjected to a systematic curing process at specific intervals, namely 7, 14, 21, and 28 days to ensure optimal hardening. Following the post-curing, the bricks will be evaluated for water absorption resistance and compressive strength, measured by weight loss and resistance to compression. The results of this study have the potential to contribute significantly to sustainable construction materials and waste management practices.

**Keywords:** plastic bricks, water absorption, compressive strength

## FAKE NEWS DETECTION USING LSTM

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### Abstract

The growing popularity of social media and online news outlets have increased the incontrovertible influence of 'fake news', which includes hoaxes, rumors, conspiracy theories, and propaganda. It has had a great negative impact and has become a global issue. The inability to effectively distinguish legitimate news stories have played a major role in the representation of fake news. Moreover, the ability of the fake news to affect the opinions and actions of the public and governments has highlighted the necessity for the development of fake news detection systems. Such systems can be developed using machine learning techniques and would serve as a valuable asset to consumers as well as news corporations in evaluating news credibility. Previous works towards fake news detection have implemented a variety of techniques. Our research comprises of a fake news detection model powered by Long Short-Term Memory (LSTM) neural networks. The rise of misinformation is a big problem, and it messes up how people talk to each other and affect their decision-making process as a society, by using LSTM's skills at figuring out complex patterns in the sequential data, our study sets out to refine the art of spotting fake news with precision and speed. This research tested the model to see how well it works by using different ways of measuring, such as accuracy, precision, recall and F1 Score. This model separates the facts from misinformation which helps make the trust and truth stand out in all of the information system. This research can help people like policymakers, journalists and tech experts to deal with the problem of fake news. By equipping them with a powerful ally in the fight for truth and transparency, this study contributes to the noble cause of preserving the integrity and reliability of information in our interconnected world.

**Keywords** – Fake News, Neural Networks, LSTM, Accuracy.

**INVESTIGATION OF THE FRACTURE BEHAVIOR OF PLA AND RE-PLA  
SAMPLES MANUFACTURED WITH FUSED DEPOSITION MODELING USING  
DIFFERENT MANUFACTURING PATTERNS**

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**ABSTRACT**

Three-dimensional (3D) printing is a practical manufacturing method whose usage area is increasing rapidly today, where a direct transition from the design stage to the manufacturing stage can be achieved. Polylactic Acid (PLA) is a popular 3D printing material produced from renewable resources and known for its biodegradable properties. Recycled (Re-PLA) is a form obtained by processing used PLA and helps reduce environmental impact. Re-PLA improves waste management while also making resource utilization sustainable. In this study, PLA, one of the biopolymers that is one of the 3D printing materials, and Re PLA, recycled from waste filaments after faulty production, were produced with a 3D printer and their fracture behavior was investigated. The samples were produced with vertical and horizontal truss internal patterns and axis directions. The filament diameter used in the study was determined as 1.75 mm, the layer thickness was 0.2 mm, the filling ratio was 50% and the filling shape was determined as a grid. In this study, the mechanical performance of PLA and Re-PLA materials with three-point bending in vertical and horizontal orientations was compared. In addition, the fracture behavior of the samples was examined by surface roughness measurements and SEM analysis. The results showed that the loading direction had a significant effect on the mechanical properties of the material, and surface roughness also played an important role on mechanical performance. The study revealed that vertically oriented samples showed higher bending strength compared to horizontal ones. Additionally, the reprocessed materials exhibited similar or slightly improved mechanical properties compared to the original materials.

**Keywords:** Polylactic Acid (PLA), Recycled Polylactic Acid (Re-PLA), Fused Deposition Modeling, Mechanical Properties.

## EFFECTS OF DIFFERENT CROP LOADS ON FRUIT QUALITY

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### ABSTRACT

Fruits have a high nutritional value, which makes them extremely valuable for human nutrition. Anatolia, which is the origin of many fruits with its ecological and topographic richness, is among the producing countries in the world for many fruit species. However, contrary to the positive scenario in production, our export values do not reflect our potential. It may be possible to achieve the desired foreign trade capacity by achieving standardization in production. Regarding yield and quality; it is known that these parameters change under the cumulative influence of ecological factors and cultural processes. Yield is one of the major factors that can affect all quality factors on its own. Fruit set ratio is the most important criterion on fruit/leaf ratio, and the distribution of assimilation products according to different crop loads affects all pomological and chemical properties of fruits. In general, without thinning does not mean obtaining more yield and causes losses in quality. As a result of studies covering different varieties of different species; some comparisons were made by leaving one, two and three fruits on the cluster/branch/bunch. It has been reported that in the examined varieties, yield does not decrease if not a single fruit is left in the cluster/branch/bunch. Additionally, it was concluded that the average fruit weight increased by more than 25%, although it varied according to varieties. While an increase in a values measured from the peel and aril is observed, it is reported that this situation positively affects the accumulation of various antioxidative enzymes and phenols, especially anthocyanins. It has also been concluded that moderate thinning promotes sustainable and economical production in terms of carbohydrate accumulation and hormonal balance. As a result, it can be said that non-harsh dilution increases efficiency and quality in production.

**Key Words:** Yield, physico-chemical characteristics, correlation, quality

## INVESTIGATION OF THE COGNITIVE CONTROL AND COGNITIVE FLEXIBILITY LEVELS OF HEALTHY INDIVIDUALS IN DIFFERENT AGE GROUPS

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### ABSTRACT

**Introduction and Purpose:** This study was conducted to examine the cognitive control and cognitive flexibility levels of individuals in different age groups.

**Materials and Methods:** In this study 50 healthy individuals (F:32/M:18) in the 20-45 age (Group 1), 50 healthy individuals (F:24/M:26) in the 46-64 age (Group 2) and 50 healthy individuals (F:24/M:26) in the 46-64 age (Group 3) were evaluated. A total of 150 individuals were evaluated who volunteered to participate in this study. Demographic data were recording and The Cognitive Control and Flexibility Questionnaire (CCFQ) was used to measure individuals' cognitive control and flexibility levels.

**Results:** The mean age of Group 1 were  $23.48 \pm 2.86$  years, Group 2;  $56.36 \pm 4.67$  years and Group 3;  $70.62 \pm 4.09$  years. The mean of Appraisal and Coping Flexibility sub-parameter of CCFQ were Group 1;  $47.72 \pm 7.95$ , mean of Group 2;  $46.86 \pm 7.11$  and the average of Group 3;  $49.30 \pm 7.84$ . There was no statistically significant difference between the groups ( $p=0.273$ ). The mean of Cognitive Control Over Emotions sub-parameter of CCFQ; mean of Group 1;  $39.36 \pm 8.97$ , mean of Group 2;  $43.12 \pm 9.33$  and the mean of Group 3;  $41.46 \pm 10.22$ . When the three groups were compared, no statistically significant difference was found ( $p=0.145$ ). Total score of CCFQ; mean of Group 1;  $87.08 \pm 12.86$ , mean of Group 2;  $89.98 \pm 13.30$  and the mean of Group 3;  $90.96 \pm 13.86$ . There was no statistically significant difference between the groups ( $p=0.322$ ). In terms of total score, it was observed that the average CCFQ score increased with age.

**Discussion and Conclusion:** As individuals get older, their cognitive control and cognitive flexibility levels increase. In other words, the ability to cope with negative situations increases.

**Key Words:** Healthy individual, Cognitive flexibility, Cognitive control.



## **AGRICULTURE AND SOIL MICROBIOME AND MICROBIAL INTERACTION WITH THE ENVIRONMENT**

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### **Abstract**

This study aims to elucidate the dynamic interplay between agriculture, soil microbiomes, and the environment, recognizing the pivotal role of microbial communities in sustaining agroecosystems. Employing a systematic literature review methodology, an extensive search across various databases was conducted, encompassing studies from the past decade. This investigation focused on the impact of agricultural practices, including tillage, pesticide application, and fertilizer use, on soil microbial diversity and functionality. The synthesis of the literature reveals nuanced responses to these practices, highlighting the intricate relationships that shape microbial communities in agroecosystems. The results underscore the sensitivity of soil microbes to anthropogenic influences, emphasizing the need for sustainable agricultural practices. Moreover, this study explores the influence of the soil microbiome on crop health and productivity, emphasizing the multifaceted roles of beneficial microbes. The findings reveal promising avenues for harnessing microbial activities to enhance nutrient availability and disease resistance in crops. In the discussion, the implications of these findings for the development of sustainable agricultural practices that prioritize both productivity and environmental stewardship were addressed. The study concludes with a call for a paradigm shift towards agroecological approaches, recognizing the integral role of soil microbiomes in achieving long-term sustainability in agriculture. This research contributes valuable insights to the growing body of knowledge on the intricate relationships between agriculture, soil microbiomes, and environmental sustainability, informing future research directions and guiding the implementation of more resilient and environmentally conscious agricultural systems.

**Keywords:** Microbiome, Interaction, Environment, Agriculture

## INVESTIGATION OF THE MECHANICAL AND PHYSICAL PROPERTIES OF GLASS POWDER AND TALC FILLED POLYPROPYLENE COMPOSITES

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### ABSTRACT

**Introduction and Purpose:** Today, the role of composite materials in the field of plastic material production is quite large. Composite materials are formed by improving the properties of the polymer by adding one or more filling materials to the polymer material used as the main matrix. In this study, the change in the mechanical and physical properties of the polymer with the addition of different fillers to the polypropylene material was investigated.

**Materials and Methods:** Nanom micron sized talc and glass powder were used as fillers. 6 different composites created with fillers were mixed in different proportions in the extruder. Only 3% talc was added as a starting mixture to the original raw material PP product. Then, keeping the amount of 3% talc constant, 5%, 10%, 15%, 20% glass powder was added. The prepared mixtures were produced as test samples by the injection molding method. Tensile and impact tests were performed on the produced composite samples. Thermal properties were examined on the DSC device and changes in the test results were observed depending on the mixture ratios.

**Results:** According to the results obtained from the DSC device, no big change was observed in the PP melting temperature (160°C). In the Izod-Charpy impact test, fluctuations in the impact damping energy were observed due to differences in the interactions between the components of the polymer composite depending on the changes in the amount of glass powder. The damping energy of the mixture containing only 3% talc is 0.1575 Joules. The damping energy of mixtures containing 5%, 10%, 15%, 20% glass powder was measured as 0.115, 0.13, 0.175, 0.155, respectively. **Discussion and Conclusion:** As a result of the tests applied to the samples produced by the injection molding method, it was observed that glass powder and talc fillers produced different results on the physical and mechanical properties of the polypropylene material.

**Key Words:** Composite materials, filling materials, mixed composites, granulated glass, talc

## **FINANCIAL SERVICES SECTOR STRONG IN FACING POTENTIAL SLOWDOWN IN GLOBAL ECONOMIC GROWTH**

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### **Abstract**

The Financial Services Authority (OJK) Monthly Board of Commissioners Meeting assessed that the stability of the national financial services sector is maintained, supported by strong capital, adequate liquidity and a maintained risk profile so that it is able to face a potential slowdown in global economic growth. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that the OJK remains alert to risk factors that have the potential to influence future economic growth and the financial services sector, namely there is downside risk from the weakening of the Chinese economy, still high geopolitical tensions, as well as fluctuations in prices of main export commodities. Therefore, LJKs are asked to continue to pay close attention to the risk factors above and periodically carry out resilience tests in order to measure their ability to absorb potential risks that occur. By implementing policies and law enforcement measures, and continuing to synergize with the Government, Bank Indonesia, LPS, and the financial industry as well as business associations in the real sector, OJK is optimistic that the financial system can be maintained stable.

**Keyword :** Financial Services Sector; Potential Slowdown; Global Economic Growth

**FOOD AND NON-FOOD APPLICATIONS OF OPUNTIA SPP.  
'OPUNTIA SPP. SNACKS'**

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**Abstract** Foods which are rich in nutraceuticals, low in calorie, fat and cholesterol content and/or high in fibre content are preferred by consumers as healthy foods Worldwide. Opuntia, known as prickly pear cactus, is a nutritious fruit and has edible cladodes used as vegetable. There is a growing interest of the Opuntia pears within the consumers and food industry as they are good source of bioactive compounds such as phenolics, vitamin C, vitamin E, polysaccharides, betalains, aminoacids, and minerals. Moreover it is rich in dietary fibre content. The pulp has high water content (85 %) and low-calorie value of 50 kcal/100 g, in addition based on the amount of daily value, 100 g serving of Opuntia prickly pears has the modest content of essential nutrients. Also, the present researches about its health promoting activities (e.g. antioxidant, antiviral, anti-inflammatory, anti-diabetic and anticarcinogenic effects) increase the demand of the Opuntia prickly pears.

In the food industry, due to Opuntia's (fruit and cladode) coloured compounds (e.g. betacyanins, betaxanthins etc), they are used as a natural food additive (e.g. ice cream, candy, juice, marmalade, jam, fruit paste) without any certification requirements. In addition, because of the polysaccharides and phytochemical contents (e.g. phenolic acids and flavonoids) of the Opuntia, it is used to increase water absorption capacity of the flours (e.g. gluten free crackers, pasta, cake, paste, biscuits, bread etc). Beside its rich content of dietary fibre (mucilage with high content of galacturonic acids), they could be used as a thickening agent to promote water retention (ice cream, syrups (arope), juices, marmalades, sweetened appetizers, candy, fermented rice milk beverage etc). In the traditional Mexican dishes, they may be used as raw material for brewing liqueurs, alcoholic drinks (Colonche), vinegar, soft drinks and preparing jams, jellies, preserves and sauces. It may also be used as a natural colourant and antimicrobial, antioxidant agent in the production of salami.

Since the nutritional value of the Opuntia is high and the production of functional foods is cheaper due to its adaptation to grow under difficult conditions (total world production of cactus pear was estimated at 200,000 tons), it could be used to maintain and promote health and life quality of rural and urban consumer's diet. In this chapter, it will be discussed the potential nutritional value of the Opuntia spp. and their usage on the production of functional foods as snacks and looking for its commercial use both in local markets and online.

**Keywords:** Opuntia · Plant-based food · Snack · Bioactive compounds · Functional Foods

## INVESTIGATION OF POSTURAL HABITS AND AWARENESS LEVELS OF ACADEMIC STAFF: PILOT STUDY

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### ABSTRACT

**Introduction and Purpose:** Posture refers to the position of the human body in space and the relationship of body parts to each other. Academic staff have the potential to develop different posture strategies such as head-forward posture and trunk rotations due to serious desk working hours. Different posture positions place excessive stress on the muscles in these areas and other structures of the spine. The aim of this study was to examine the postural habits and awareness levels of academic staff. **Materials and Methods:** Seventeen academic staff from Toros University Vocational School of Health Services participated in this study. Within the scope of the study, sociodemographic information and pain localizations of the participants were recorded. Pain intensity of participants reporting pain was evaluated with the Visual Analog Scale. Additionally, the Postural Habit and Awareness Scale (PHAS) was used to determine postural habit and awareness levels. **Results:** A total of 17 academic staff with an average age of  $35.94 \pm 6.76$  participated in the research. The average pain intensity of the participants who described shoulder, waist and neck pain was determined as  $4.58 \pm 3.67$  points. While the mean score of the Posture Habit and Awareness scale ( $21.76 \pm 4.52$ ), one of the PHAS subscales, was found to be low ( $p < 0.05$ ), the mean score of the Awareness of Factors Impairing Posture scale ( $16.64 \pm 3.49$ ) was found to be high ( $p > 0.05$ ). It was observed that the participants' Postural Awareness ( $13.17 \pm 2.55$ ) and Ergonomic Awareness ( $7.35 \pm 2.02$ ) levels were low ( $p < 0.05$ ). It was found that the PHAS total score ( $58.94 \pm 4.70$ ) of academic staff was low ( $p < 0.05$ ). **Discussion and Conclusion:** It has been observed that academic staff's postural habits and awareness levels are low. This situation may lead to injuries in different extremities and body parts of academic staff, especially in the shoulder, waist and neck areas. In addition, it was determined that academic staff who experienced pain reported moderate pain. We think that awareness trainings including occupational therapy approaches and adaptive environmental arrangements specific to academic staff will reduce the risk of injury and health care burden. **Key Words:** Academic Staff; Posture; Postural Awareness, Postural Habit; Pain

## FOSTERING INDUSTRIAL SUPPLY CHAIN MANAGEMENT

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**Abstract:** The supply chain is essential for all organizations to maintain operational continuity. For years, organizations have emphasized redundancy and efficiency in society to reduce fixed costs and promote effectiveness. Efficiency, however, came at the expense of diminished flexibility and efficacy, a trade-off the pandemic-induced supply chain disruptions have made painfully clear. This trade-off is now being avoided by implementing effectiveness by reducing inefficiency, joblessness, risk-focused analytics engines, reproduction, and end-to-end transparency to design an effective and resilient supply chain. It is a challenge to balance efficiency and resiliency through a thoughtful analysis of scenarios and economics for the assurance to cover additional costs that are rewarded with risk reduction. With the benefit of resilience, the supply chain can be massive by contributing to everyday environments during major environmental and economic disasters. The paper aims to discuss the resilient supply chain for establishing its functional and organizational standards and for protection against conversational or economic calamities like the COVID-19 pandemic in the future if it happens again. The methodology has been conducted through documentary analysis. The feature question of the paper is how resilience can be a fabric nature in the supply chain and its management.

**Keywords:** Supply Chain, Resilience, Productivity, Pragmaticism, Redundancy, Trade-off,

**AGE AND GENDER PREVALENCE OF SCHISTOSOMA HAEMATOBIIUM  
AMONG SECONDARY SCHOOL STUDENTS IN ALIERO TOWN, KEBBI STATE,  
NIGERIA**

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**Abstract**

A study was conducted between August 2022 and January, 2023 to investigate the age and gender prevalence of *Schistosoma haematobium* infection in some selected secondary schools in Aliero town. Four hundred urine specimens were examined from randomly sampled individuals aged between 9-20 year. Quantitative microscopic counting of *Schistosoma haematobium* eggs was carried out. Out of the four hundred urine samples examined, one hundred and ninety-four were positive for *Schistosoma haematobium* infection. The infection with *Schistosoma haematobium* is not related to the type of school, age and gender of students ( $p>0.05$ ). *Schistosoma haematobium* was prevalent in the study area and all students have equal chance of being infected. Mass chemotherapy and health education on simple health promoting factors are highly recommended.

**Keyword:** *Schistosoma haematobium*, Prevalence, Age, Gen

## "FROM CRISIS TO SOLUTIONS: UNDERSTANDING THE SILENT THREAT OF AIR POLLUTION IN SOUTH ASIA"

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### **Abstract**

Air pollution is a critical issue plaguing South Asia, where nine of the world's ten most polluted cities are situated. This environmental crisis has far-reaching consequences, resulting in approximately 2 million premature deaths annually and imposing significant economic burdens on the region. The countries hit hardest by air pollution in South Asia include India, Bangladesh, Pakistan, and Nepal. The sources of air pollution in South Asia are multifaceted. While industrial emissions from factories, emission of Chlorofluorocarbons and power plants play a substantial role, additional factors contribute significantly to the sourness of temperature. These include the widespread use of solid fuels for cooking and heating, emissions from small-scale industries, open burning of municipal and agricultural waste, and even cremation practices. Delicate particulate matter (PM<sub>2.5</sub>) concentrations in densely populated South Asian areas can exceed the WHO's recommended limits by up-to 20 times. Such extreme pollution exposure leads to stunted growth, reduced cognitive development in children, respiratory infections, and chronic diseases. These health issues strain healthcare systems, reduce productivity, and result in lost workdays. The economic toll of air pollution is substantial. Escalating healthcare expenses, decreased productive capacity due to illness and absenteeism, and environmental damage contribute to the financial burden.

While some South Asian countries have implemented policies to improve air quality within cities, a broader perspective is necessary. Policymakers must address pollution sources beyond urban centres, including small-scale manufacturing, agriculture, residential cooking, and waste management. Achieving clean air requires coordinated efforts across local and national boundaries. Regional cooperation can facilitate cost-effective strategies that leverage the interconnected nature of air quality. The EU's Convention on Long-Range Transboundary Air Pollution and the 1991 US-Canada Air Quality Agreement serve as precedents of how effective intergovernmental cooperation can control rising air pollution. Urgent and similar actions are imperative to safeguard public health and promote sustainable growth in the region. By adopting comprehensive policies and fostering collaboration, we can strive for cleaner air, better health, and sustainable economic development; our paper delves into ingenious and inventive conventions or treaties in South Asia for tackling such issues; however, the increasing political tensions among the prominent leaders of this region serves as an obstacle to these avenues.

**Keywords:** Air Pollution, South Asia, EU Convention, Transboundary Air Quality, Regional Cooperation.



## **FULFILLMENT OF ACTUARIAL OWNERSHIP IN THE INSURANCE INDUSTRY**

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### **Abstract**

The Financial Services Authority (OJK) provides the latest information regarding the fulfillment of actuarial ownership in insurance companies in the country. Insurance companies continue to strive for compliance regarding the ownership of company actuaries. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that up to now, it is recorded that 96% of life insurance companies have actuaries at the Fellow Society of Actuaries of Indonesia (FSAI) level with a total of 240 FSAI members. On the side of general insurance and reinsurance companies, 76% of companies have recorded actuaries at the FSAI level with a total of 83 FSAI people. Indeed, currently there are two life insurance companies and 19 general insurance and reinsurance companies that do not have actuaries. However, this shows a positive trend from previous years, especially in the general insurance and reinsurance industries. The company will continue to monitor the fulfillment of these actuarial provisions as an implementation of Financial Accounting Standards (PSAK) 117. Where the role of actuaries will be very important in various scopes of the company's business.

**Keywords:** Actuary, Insurance Company, Reinsurance

## **EFFECTS OF SOIL AND FOLIAR FERTILIZING ON AFUS ALI GRAPEVINE BUDS' WINTER TEMPERATURE RESISTANCE AND CLUSTER CHEMICAL COMPOSITION**

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### **ABSTRACT**

The aim of this research was to determine the influence of soil and foliar fertilizing on the chemical composition of the clusters and the resistance of the clusters to low winter temperatures of grapevine cultivar Afus Ali grown in the Tikves vineyard area. In November, with the basic cultivation of the soil, the fertilizer NPK 10-20-30 was applied ( $500 \text{ kg}\cdot\text{ha}^{-1}$ ). Foliar fertilizing was performed with 0.4%, 0.8%, 1.2% and 1.5% solution of NPK fertilizer 18-9-27+2MgO + ME ( $1000 \text{ mg}\cdot\text{kg}^{-1}\text{Fe}$ ;  $200 \text{ mg}\cdot\text{kg}^{-1}\text{B}$ ;  $150 \text{ mg}\cdot\text{kg}^{-1}\text{Zn}$ ;  $500 \text{ mg}\cdot\text{kg}^{-1}\text{Mn}$ ;  $56 \text{ mg}\cdot\text{kg}^{-1}\text{Mo}$ ;  $110 \text{ mg}\cdot\text{kg}^{-1}\text{Cu}$ ). Four foliar treatments were applied during the vegetation: 15 days before flowering, 15 days after flowering, in the phase of grain growth and in the phase of veraison. In the soil samples, a neutral pH value was determined, medium fertility with available nitrogen and phosphorus as well as good fertility with available potassium. Different concentrations of foliar fertilizing had a positive influence on the chemical composition of the clusters and the resistance of the oaks to winter temperatures in which a significantly higher ( $p<0.05$ ) content at all tested temperatures in all variants was obtained compared to the control area. In the clusters of the Afus Ali variety, higher ( $p<0.05$ ) content of nitrogen (1.49%), phosphorus (0.69%) and potassium (1.12%), as well as the lowest percentage of frozen buds (5.80%) at a temperature of  $-15 \text{ }^{\circ}\text{C}$ , 9.00% frozen buds at a temperature of  $-18 \text{ }^{\circ}\text{C}$  and 17.87% frozen buds at a temperature of  $-21 \text{ }^{\circ}\text{C}$  was determined at the variant 4 (NPK 10-20-30 + 1.2% solution of NPK 18-9-27+2MgO+ME). The content of calcium (1.57%) and magnesium (0.40%) in the clusters was determined in variant 3 (NPK 10-20-30 + 0.8% solution of NPK 18-9-27+2MgO+ME).

**Keywords:** Grapevine production, foliar fertilizing, buds.

**FUNCTIONAL AND NUTRACEUTICAL SIGNIFICANCE OF AMLA  
(PHYLLANTHUS EMBLICA L.)**

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**Abstract :**

Phyllanthus emblica L. (also known as amla) is a tree native to India and Southeast Asia that produces fruits rich in bioactive compounds that may be explored as part of a growing interest in naturally occurring compounds with biological activity. Hence, this review aims to highlight the rich nutritional and phytochemical aspects and effects of AML on health. Scientific evidence indicates that polyphenols are central components in fruits and other parts of the amla tree, along with vitamin C. The rich composition of polyphenols and vitamin C imparts important antioxidant activity along with important in vivo effects that include improving antioxidant status and activity. From the endogenous antioxidant defense system. Other potential health benefits are anti-hyperlipidemia and antidiabetic activities as well as anti-cancer, anti-inflammatory, gastrointestinal, and neuroprotective activities. Promising results provided by studies on bioactive AML compounds support their potential role in helping to promote health and prevent disease.

**Keywords :** polyphenols, ascorbic acid, antioxidant activity, cardiovascular protection, hyperlipidemia, diabetes, health promotion.

## GENETIC APPROCHES TO BREED FOR CLIMATE RESILIENCE IN LIVESTOCK

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### **Abstract :**

Climate change is one of the crucial factors which negatively influences the animal health, productivity and welfare. Among the agricultural sector, livestock is considered to be highly resilient to climate change and are tipped to play a significant role in ensuring food security to the growing human population. Among various approaches to ameliorate heat stress, genetic approach grants favourable strategies to enhance the resilience of livestock to the changing environmental conditions. Hence, a better understanding of genetic differences and molecular mechanism involved in thermo tolerance and innate resilience is necessary. Conventional breeding strategies have played a potent role towards production of superior animals with their own drawbacks. With the advancement in molecular biotechnology, methodologies such as next generation sequencing, microarray technology, whole transcriptome analysis and genome wide association studies were discovered which aids in efficient selection. Marker assisted selection facilitates the identification and utilization of genetic markers associated with desirable traits. Through MAS, genes related to heat stress response, drought tolerance and disease resistance can be targeted for selective breeding, enhancing the resilience of livestock population. In addition gene editing techniques, such as CRISPR-Cas9, allows to modify the livestock genome, potentially conferring resilience traits while maintaining genetic diversity. Moreover, the conservation and utilization of indigenous livestock breeds with inherent adaptive traits are essential for maintaining biodiversity and resilience in the face of climate change. Interdisciplinary collaboration among scientists, policymakers, and stakeholders is essential to ensure the ethical and sustainable application of genetic technologies in livestock breeding for climate resilience.

**Keywords:** Biomarker, Climate resilience, Gene editing, Genomic selection, Livestock breeding.

## **GENETIC ENGINEERING: ETHICAL CONCERNS VS. BENEFITS**

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### **Abstract:**

Genetic engineering presents a complex landscape of ethical considerations and potential benefits, raising profound questions about the manipulation of life itself. This paper explores the dichotomy between ethical concerns and the promising advancements in fields such as medicine, agriculture, and biotechnology. Key ethical concerns include the alteration of natural organisms, potential environmental impacts, socioeconomic disparities, and the moral implications of “playing God.” However, amidst these concerns lie substantial benefits, including the potential to eradicate genetic diseases, enhance crop yield and nutritional value, and address pressing global challenges. This paper examines both perspectives, highlighting the necessity for robust ethical frameworks to guide the responsible development and application of genetic engineering technologies.

**Keywords:** Genetic engineering, Environmental impacts, Socioeconomic disparities, Moral implications, Genetic diseases, Crop yield, Global challenges, Responsible development.

## GOVERNMENT'S SUCCESS IN HANDLING THE PANDEMIC & ACCELERATING ECONOMIC RECOVERY

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### **Abstract**

Minister of Finance (Menkeu) Sri Mulyani Indrawati representing the Government submitted the Central Government Financial Report (LKPP) (Unaudited) to the Indonesian Financial Audit Agency (BPK). The Minister of Finance was accompanied by a number of Ministers and Heads of Institutions representing Central Government institutions as a form of strong commitment to continue to improve governance and accountability in state financial management. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that the LKPP submitted consists of seven components, namely (1) APBN Realization Report; (2) Report on Changes in Excess Budget Balance; (3) Cash Flow Statement; (4) Operational Report; (5) Balance Sheet; (6) Statement of Changes in Equity; and (7) Notes to Financial Reports. In the LKPP, the government also reports accountability for budget use in the context of handling the Covid-19 pandemic and national economic recovery (PC-PEN). The Minister of Finance emphasized that the Government is committed to continuing to improve the quality of LKPP every year. This commitment is manifested in the steps that have been taken, including improving the financial reporting system, improving accounting policies and technical instructions, providing guidance to all Ministries/Institutions to minimize repeated findings from BPK's LHP, following up on all BPK recommendations, and also monitoring completion so that it continues running consistently.

**Keywords:** Government, Minister of Finance, Central Government Financial Reports, Financial Audit Agency, Pandemic

## HISTORY AND SECURITIZATION OF MIGRATION: THE CASE OF THE USA

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### ABSTRACT

The United States of America (USA) is an immigrant country with ethnic diversity and has continued to receive immigration since its founding, which has ensured that the issue of immigration has always been on the agenda of the country. In the historical process, it is possible to examine the immigration policies established in the USA in five periods: the open door policy, the regulation policy, the restriction policy, the liberalization policy, and the devolution policy. The most important development in terms of prioritizing national security in immigration policies is the 9/11 attacks. After the 9/11 attacks, security concerns were emphasized more, new restrictive immigration laws emerged, and the securitization process of migration became more important than in the past. Policymakers and leaders who are actors in the securitization of migration (e.g., Donald Trump) have constructed restrictive immigration laws through the "us/them" distinction by adopting a populist perspective. In this context, this study aims to examine the immigration history of the USA and analyze the securitization efforts in immigration policies implemented in the process, focusing especially on the post-9/11 period. The data obtained from primary sources, especially official documents of the USA, and secondary sources such as academic works and news were examined with the document analysis method, which is among the qualitative research methods. As a result of the study, it was determined that policymakers and leaders who created policies that securitize migration benefited from populism for their acceptance of these policies and that especially populist discourses were effective in influencing large masses. It has been concluded that populist discourses and securitization processes, which cause prejudice and social divisions, pose a threat to liberal democracy by challenging fundamental values such as law, democracy, and protection of minority rights and increasing concerns about the state of democracy, social harmony, and economic stability.

**Key Words:** Migration, Securitization, Migration Policy, Populist Discourse

## NEUROPROTECTIVE AGENTS, NATURAL PLANT HERBS & DRUGS IN ISCHEMIC STROKE: A REVIEW

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### **ABSTRACT:**

It is widely acknowledged that green tea has extraordinary ability to combat many chronic diseases, including cancer. Green tea contains polyphenols, which are known for their ability to act as both antioxidants and a defense against serious illness. With the aid of a collection of previously published literature, this aims to investigate the beneficial antioxidant potential of green tea. Green tea, which is made from the *Camellia sinensis* plant's leaves, is one of the most consumed beverages in the world. Although green tea consumption globally is lower than that of other types of tea and coffee, people from 160 different nations are now accustomed to drinking it. In general, green tea has been found to be healthier than black tea, which increases its popularity and demand. Black tea is known to undergo much more severe processing than other types of tea, which is known to result in a much greater reduction in monomeric catechin levels. Green tea is thought to contain significant amount of bioactive compounds, the majority of which come from polyphenols, which play a significant role in the prevention and treatment of many infections and diseases. The catechins epicatechin (EC), epigallocatechin (EGC), epicatechin gallate (ECG), and epigallocatechin gallate (EGCG) are the main polyphenols in green tea. The main active ingredient is thought to be epigallocatechin gallate. This review chapter will focus on green tea antioxidant properties, which are linked to the beverage's high cell-reinforcing content. This article demonstrates the benefits of green tea for its calming properties, potential as a cancer preventative, and oral health benefits. This article shows that green tea has a place in both the traditional and elective medicinal groups, despite the fact that the human clinical information is still limited.

**KEYWORDS:**epigallocatechin gallate, epigallocatechin, *Camellia sinensis*



## **E-HEALTH LITERACY: A CONCEPTUAL PERSPECTIVE**

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### **ABSTRACT**

Health is an important concept and practice for human and community life. The importance of human health has led to the development of health science as well as the health sector, supported by large investments. The fact that health science and the health sector are so advanced and continue to develop rapidly brings the health profession and health knowledge to a remarkable position due to its privileges and responsibilities. The necessity of making health information meaningful for everyone brings the concept of health literacy to the agenda. Internet and new communication technologies have profoundly affected the field of health as well as all areas of life. In the contemporary world, new communication technologies and new media are also used extensively by the health sector. The digitalization of health services results in the transformation of the concept of health literacy into the concept of e-health literacy. This study focuses on e-health literacy, which refers to the evolution of health literacy in parallel with the digital world. Within the scope of this conceptual study, e-health literacy is addressed based on the concept of e-health and is discussed with a descriptive perspective within the framework of its definition, scope, and historical development. It is thought that the study is important because the concept of e-health literacy is a relatively new concept and will contribute to the literature in terms of shedding light on future studies.

**Keywords:** Health, E-Health, Health Literacy, E-Health Literacy, New Media, Digital Health Literacy.

**COMMUNITY PHARMACY IN PAKISTAN. MYTHS, REALITIES AND ASSOCIATED CHALLENGES; STRATEGIES TO OVERCOME BARRIERS**

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**ABSTRACT:**

In current decade the roles and responsibilities of community pharmacy professionals are well defined. However it is considered still confusing in developing countries where major inclination of Graduates is towards industry or hospitals services are high. Currently in Pakistan very few community pharmacy setups are established. Major challenges may be low fringe benefits and less attractive packages. Moreover Recognition of services is also a major concern for new bees in the field. The concepts of retail, chain and independent pharmacies are increasingly popular now a days. Pharmacy graduates are more inclined towards entrepreneurship. But major challenges and myths in reality are also barriers hindering towards full established practices in this area. Through a structured interview different Pharmacist showed their concerns regarding compromise recognition, and lack of respect as Pharmacist. Lack of time spend with patients due to intense work load is also a contributing factor in this regard. Majority pharmacy setups are under qualified staff. But all interview cohort expressed their hopes towards community pharmacy Profession despite of these challenges and myths. They believe that strategies for successful branding of this concept can play vital role to attract trained individuals in market to raise practices standards. Grasping of key opportunities are important attributes, viability of retail and community pharmacy and significant support from key stakeholders at regional and national level may strengthened and improve this situation. Addressing the Accessibility barrier, implementation of quality assurance mechanisms and incorporation of research and evidence based practices can enhance the quality accessibility and effectiveness of community pharmacy services in Pakistan for Improved health outcomes.

**Keywords:** Community Pharmacy , Myths, realities, Challenges Pharmacist, evidence based practices

## REPLACEMENT OF THE GEOPOLYMER CONCRETE SECTIONS AS LAYER BY THE STEEL FIBER REINFORCED GEOPOLYMERS: BENDING TEST ON NOTCH PRISMS

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### ABSTRACT

**Introduction and Purpose:** Due to the requirement for the maintenance of the reinforced concretes which are exposed to severe environmental conditions, new mortars might be able to be used to fix the damaged localized zone of the concrete members, which in turn results in a variable material property along the cross-sections. Regarding the conventional cement based concretes, comprehensive experimental data sets have been available in the literature. Whereas it is seen that there is not enough well-grounded knowledge on the behavior of layered geopolymer concretes. In this context, this study aims to address the mechanical and fracture features of geopolymer concretes reinforced by recycled steel fibers at varying layers along the specimen depth.

**Materials and Methods:** Two different geopolymer mixture were employed, which are plain blend with  $300 \text{ kg/m}^3$  slag and fiber-reinforced blend  $600 \text{ kg/m}^3$  slag along with the recycled steel fibers of  $45 \text{ kg/m}^3$ . The test parameters considered in this work were the layer thicknesses of the reinforced mixtures which were composed of 50%, 75%, and 100% replacement of the specimen width. The total width of the produced specimens was fixed to 100 mm, and its depth and length were 100 mm and 400 mm, respectively. Three-point bending test were performed under deformation controlled loading subsequent to the opening of the central edge notch on the specimens. The flexural responses were assessed with regard to the modulus of rupture, ductility ratio, and fracture energy.

**Results:** Increasing the layer thickness of fibered mixture led to a considerable recovery on the test parameters analyzed.

**Discussion and Conclusion:** Such a conclusion is indeed expected. Because the fibers were functioning on the crack bridging, especially at the post-peak region of the load-deflection curves by pulling-out from the concrete medium. Hence the number of the individual fibers along the cohesive region led to increased load transfer mechanism between the crack faces.

**Key Words:** Layered geopolymer concretes; Recycled steel fiber; Fracture energy; Ductility

## **A REVIEW ON BIODIESEL PRODUCTION USING EGGSHELL AS CATALYST**

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### **ABSTRACT**

Transesterification of fatty acid methyl ester (FAME) is the most known production method of biodiesel which has a growing popularity in the renewable clean energy sector. Energy consumption increases all around the world. To meet increasing this consumption lots of new techniques are being studied. It is important to obtain low cost and high quality energy. For biodiesel production processes it can be provided by improving reaction conditions. Conversion efficiency of transesterification process is an important parameter so various catalysts are being developed to increase it. Waste materials are good alternatives for catalyst production. There are lots of studies are being carried about using waste materials as catalyst. Cost of energy decreases and waste assessment is provided by this way. Among the heterogeneous catalysts, calcium (Ca) based catalysts are highly preferred in the transesterification reaction because of their high catalytic activity and easy accessibility. It can be obtained from especially egg shell and egg is one of the most over-consumed foodstuff across the world. Waste egg shell that is rich in terms of Ca was subjected to calcination process to obtain calcium oxide (CaO). CaO catalyst which is synthesized with high activity increased the quality of reaction. In this study efforts have been taken to review the studies that are about the biodiesel production from vegetable oil using waste egg shells as a bio-based catalyst. Optimum experimental conditions were summarized from reviewed studies.

**Keywords:** Biodiesel, Eggshell, Calcium oxide, CaO, Bio-based catalyst

## **CHICKPEA (*Cicer arietinum*): NUTRITIONAL ASPECTS AND COMPOSITION**

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### **ABSTRACT**

The demand for grain legume-seeds based foods continues to rise due to the growing awareness of the health risks associated with consuming animal proteins, as well as deficiencies in essential micronutrients and bioactive compounds. This shift in dietary preferences has led to a significant focus on consumer health within the food industry research, as nutrient-rich foods are linked to the prevention of chronic diseases. Leguminous crops, known for their hull and coat, contain a plethora of bioactive compounds and dietary fibers, setting them apart from other legumes. Among these, chickpeas stand out as the third most produced pulse globally, yielding approximately 15.87 million tons annually, with a distribution of 80% desi and 20% kabuli varieties. Renewed for their nutritional richness, chickpeas serve as a valuable source of energy, protein, minerals, vitamins, fibers and bioactive compounds such as phytochemicals. Categorized as a dietary staple, regular consumption of chickpeas has shown efficiency in disease management, owing to their robust nutritional profile. This review aims to highlight the nutritional composition of chickpeas, emphasizing the key macronutrient components that contribute to their active composition.

**Keywords:** Chickpea; Legumes crops; Nutritional profile; Bioactive compounds; Dietary fibers, Health benefits.

## SMART ELECTRIC VEHICLE CHARGING SYSTEM INTEGRATED WITH RENEWABLE SOURCES

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### **Abstract**

This project presents the design and implementation of a smart electric vehicle charging system integrated with renewable sources. The system utilizes solar panels and wind turbines as sources of renewable energy to power the charging stations for electric vehicles. The proposed system consists of two main components: a renewable energy system and a smart charging station. The renewable energy system includes solar panels and wind turbines, which generate electricity that is stored in batteries. The smart charging station, on the other hand, is equipped with a microcontroller that

controls the charging process, monitors the battery status, and communicates with the renewable energy system to determine the optimal time to charge the electric vehicle. The system is designed to be scalable, allowing additional charging stations to be added as the demand for electric vehicles increases. It is also designed to be user friendly. The system is tested and evaluated under various conditions, including different levels of solar irradiance and wind speed. The results show that the system is capable of providing reliable and sustainable energy to power the electric vehicle charging stations.

Overall, this project contributes to the development of sustainable transportation by providing a renewable and intelligent charging system for electric vehicles. The proposed "Smart Electric Vehicle Charge System Integrated with Renewable Sources" aims to contribute to the sustainable development of EV charging infrastructure. By integrating renewable energy sources and intelligent algorithms with the power grid, the system enhances the availability, reliability, and affordability of EV charging, while reducing the environmental impact. This project holds the potential to revolutionize the way EVs are charged, advancing the transition towards a greener and more sustainable transportation ecosystem.

**Keywords:** Smart electric vehicle, sustainable energy, renewable sources

## PROBLEMS RELATED TO NURSING RECORDS, THEIR CAUSES AND SOLUTION SUGGESTIONS: A QUALITATIVE RESEARCH

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### ABSTRACT

**Introduction and Purpose:** Nursing records are an important indicator of quality patient care and the most important communication tool of the healthcare team. Although it is a part of nurses' professional obligations, there are problems in keeping nursing records among nurses around the world. The aim of this study is to identify the problems encountered in keeping nursing records, to determine the causes of the problems and to suggest solutions.

**Materials and Methods:** The study was conducted with a phenomenology pattern in a qualitative research approach. The research process was carried out taking into account the COREQ criteria. Ethical approval and institutional permission were obtained for the study from the ethics committee of the institution where the research was conducted. Data were collected using the individual in-depth interview method from 13 nurses working in coronary intensive care at a training and research hospital. A semi-structured interview form was used in interviews with nurses. The recorded interviews lasted a minimum of 32.54 minutes and a maximum of 77 minutes. During the research process, MAXQDA Pro2020 program was used to analyze the data and all data was divided into appropriate themes and sub-themes.

**Results:** As a result of the evaluation of the data, a total of five main themes were found in the study: advantages and disadvantages of working in coronary intensive care, thoughts about the records taken during the patient care process, reasons for the problems experienced in the recording process and suggestions for improving the recording process, as well as the problems they experienced with paper-based records, electronic records problems with based records, high patient circulation and staff shortage, etc. Sub-themes emerged. It has been observed that an important reason for the problems experienced during the registration process is that nurses take on responsibilities outside of their job description. This is followed by high workload and insufficient information from patients in creating records. The main solution suggestions for nurses are not to make records for matters outside their duties, to convert paper-based records into electronic records and to strengthen the control mechanisms for records.

**Discussion and Conclusion:** In the study, it was observed that although nurses were aware of the benefits of records, they experienced problems similar to those mentioned in the literature in the process of keeping nursing records. In solving the problems in records, it is recommended to reduce the workload of nurses and develop innovations that facilitate the creation of nurse records by taking advantage of developing technology.

**Key Words:** Nurse, Nursing, Nursing Records

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## **HARNESSING STATISTICAL TECHNIQUES FOR SUSTAINABLE WATER PURIFICATION: A FOCUS ON PHOTOCATALYTIC DEGRADATION OF REACTIVE DYES**

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### **PURPOSE:**

In this study, we have developed superparamagnetic-reduced graphene composites for wastewater treatment using leaf extracts and Pennisetum glaucum panicle waste as cost-effective alternatives to commercial materials. Commercial graphite replaced with low cost field waste for GO synthesis by ecofriendly route. Therefore it gives a promising approach for eco friendly photocatalysts in wastewater treatment

### **METHOD**

The composites were synthesized through co-precipitation methods, enhancing photocatalytic electron transfer and preventing aggregation. Characterization techniques such as UV-visible spectroscopy, FT-IR analysis, FE-SEM-EDX, XPS, and VSM revealed the successful formation, functional groups, and distribution of the composites.

### **RESULT:**

Particle sizes averaged at 386.1 nm and 229.9 nm, with zeta potentials of -33.3 mV and -27.1 mV ensuring dispersion stability. Photocatalytic optimization of reactive dye was performed using CCD-based RSM plots. The composites demonstrated effective dye degradation up to 200 ppm in 2.5 hours at pH 6 and exhibited reduced phyto-toxicity in seed germination experiments. Compliance with physicochemical parameters for treated water was confirmed. Statistical analyses using two-way ANOVA and RSM with CCD optimization validated the significance and optimization of the composites with the probability of  $p < 0.05$ . Seed germination capacity and physicochemical parameters of treated water reported positive results.

### **CONCLUSION:**

Our study introduces a promising approach for eco-friendly photocatalysts in wastewater treatment, contributing to environmental protection against pollution.



## THE EFFECT OF TRICHOSTATIN A (TSA) ON MORPHOLOGICAL CHARACTERISTICS OF ARABIDOPSIS THALIANA UNDER PHOPSHATE STARVATION

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### ABSTRACT

**Introduction and Purpose:** Phosphate availability is one of the critical determinants of healthy plant growth. Plants acquire phosphate through their roots. Plants respond to changing phosphate availability in the soil by altering root system architecture. These alterations aim to enhance the plant's ability to acquire phosphate from the soil. They inhibit primary root growth, increase lateral root growth, and the length and density of root hairs. Epigenetic mechanisms are an important way in which plants respond to biotic and abiotic stresses. Histone modifications by histone acetyltransferases (HATs) and histone deacetylases (HDACs) are one of epigenetic mechanisms known to have a role in phosphate starvation response. Here, we investigate the effect of histone deacetylase inhibitor Trichostatin A (TSA) on morphological characteristics of *Arabidopsis thaliana* under phosphate starvation.

**Materials and Methods:** Wild type *Arabidopsis thaliana* plants were grown in Murashige and Skoog (MS) basal medium for 1-2 weeks in petri dishes. Then, they were transferred to MS basal medium, MS medium without phosphate, MS basal medium with 5 µM TSA and MS medium without phosphate containing 5 µM TSA. After one week of treatment, various morphological characteristics of plants were observed. Primary root length, plant length, leaf length, leaf number, lateral root number, lateral root length and lateral root density were measured.

**Results:** Phosphate starvation and TSA was found to inhibit primary root growth. Phosphate starvation led to shorter leaf lengths compared to plants grown in MS basal medium.

**Discussion and Conclusion:** Overall, our data shows that TSA has an effect in altering root system architecture and some other morphological characteristics of *Arabidopsis thaliana* under phosphate starvation.

**Key Words:** phosphate starvation, histone deacetylases, *arabidopsis thaliana*, Trichostatin A

## THE EFFECT OF VENTILATION ON INDOOR AIR QUALITY IN OFFICE BUILDINGS: THE CASE OF KONYA SELÇUKLU MUNICIPALITY BUILDING

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### ABSTRACT

**Introduction and Purpose:** People spend more than 80% of their lives indoors. Considering the time spent indoors, office buildings are one of the prominent building types. It is known that indoor air quality directly affects employees' physiological and mental health, cognitive performance, work efficiency, indoor perception and building design. For indoor air quality to be at acceptable values, the satisfaction level of users as well as the pollutant levels be at acceptable values. When the literatures covering the studies on the improvement of indoor air quality in office buildings are examined, it is seen that there are very few studies in which objective field measurements and subjective user satisfaction data are evaluated together. In this context, the study aims to contribute to the improvement of the air quality of Konya Selçuklu Municipality Service Building by evaluating the indoor air quality in offices.

**Materials and Methods:** In this study, 4 offices of different sizes and different densities with and without natural ventilation were determined in Konya Selçuklu Municipality Building. Experimental measurements of temperature (T), relative humidity (RH), carbon dioxide (CO<sub>2</sub>) and 2.5 micron diameter particulate matter (PM<sub>2.5</sub>) values, which directly affect indoor air quality, were made in summer and winter periods when the offices were the busiest and the most empty. Employees in the measured offices were surveyed about their satisfaction with indoor air quality.

**Results:** In the experimental measurements, it was determined that the indoor air quality in Konya Selçuklu Municipality Building exceeded the acceptable limit values, and the satisfaction survey data confirmed these results. As a result of the findings, ventilation suggestions were made with various scenarios to improve the indoor air quality of Konya Selçuklu Municipality Service Building.

**Key Words:** Office indoor air quality; Office indoor comfort; Office ventilation.

## **POLYSACCHARIDE-BASED MICROGELS USED AS A DRUG DELIVERY SYSTEM**

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### **ABSTRACT**

Polysaccharides are high molecular weight carbohydrates consisting of long molecular chains. Renewable structures, abundant in nature, biodegradable, cheap and more sustainable compared to fossil fuels pave the way for the use of polysaccharides as polymeric materials. Polysaccharide-based polymers are biodegradable polymers made from natural polysaccharides such as cellulose, chitin, chitosan, pectin, alginate, and hyaluronic acid. The use of polysaccharides in the synthesis of polymeric materials can provide improved mechanical properties compared to synthetic polymers, biocompatibility, biodegradability, and hydrophobicity by changing their chemical structure. In this study, pectin, a polysaccharide-based polymer, was selected as monomer. The microgels used in the study were synthesised using the reverse micelle microemulsion polymerisation technique. The obtained microgels were adjusted by changing parameters such as organic solvent, surfactant type and amount, crosslinker type and amount, etc. After optimisation, magnetic ferrite ( $\text{Fe}_3\text{O}_4$ ) was added to the synthesised particles to make them magnetically sensitive and tested in drug delivery systems.

The synthesised pectin microgel and magnetically responsive microgels were characterised using Scanning Electron Microscopy (SEM), Zeta Potential (ZP), Thermal Gravimetric Analysis (TGA) and Fourier Transform Infrared (FT-IR) Spectroscopy. In addition, the use of microgels as biomolecule (drug, protein, etc.) loading and transport systems and drug loading/release profiles were investigated using UV-vis spectroscopy.

**Key Words:** Pectin microgel; W/O emulsions; Drug delivery

## OPERATION MAINTENANCE FOR HIGHWAY BUILT WITH BOT (BUILD-OPERATE-TRANSFER) MODEL IN TURKEY

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### ABSTRACT

**Introduction and Purpose:** The rapid progress of technology in the face of time has led to rapid population increases. Especially in developing countries, inadequate transportation infrastructure affects not only the country's development rate but also the welfare of the society. In this case, countries that want to develop and expand the transportation infrastructure but do not provide sufficient financing with their own resources, prefer to use the Build-Operate-Transfer (BOT) model as a solution.

The BOT model is mainly based on the win-win logic. On the other hand, there is a contractor company that makes the investment on one side and wants to make a profit until the end of the operating period and on the other side there is a state that will have free investment to the investment. For the creation of this mutual benefit, BOT projects are analyzed in detail before the tender process.

This study investigates the highway and bridge projects tendered with the BOT model in Turkey and examines the operations of these projects during the operational period.

**Materials and Methods:** Methodologies and materials to be used during the O&M activities should be determined specifically for each project taking into consideration several parameters such as environmental conditions, regulations, project requirements, expectation of road users, etc.

**Results:** In order for the projects to serve in accordance with the expected performance criteria throughout their design life, it is of great importance to carefully fulfill the inspection, maintenance and repair requirements of all assets within the scope of the project.

The methods and maintenance-repair criteria that must be followed during these works must be carefully fulfilled, and thus operating costs must be optimized.

**Key Words:** Operation, Maintenance, Motorway, Build-Operate-Transfer

**(ENDOSCOPIC APPROACH TO INFLAMMATORY BOWEL DISEASE IN CATS AND DOGS)**

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**Abstract**

Gastrointestinal endoscopy, also known as gastroduodenoscopy, is a procedure that allows visual inspection of elements of the digestive tract, such as the esophagus, stomach, duodenum, ileum and colon. Endoscopy should be used in combination with other diagnostic imaging modalities such as radiography. Indications for gastrointestinal endoscopy usually depend on symptoms affecting the digestive tract. Symptoms such as nausea, vomiting, regurgitation, suspicion of foreign body, weight loss, melena are examples of these indications. Suspicion of the presence of inflammatory bowel disease is also a sufficient reason to perform an endoscopy. Inflammatory bowel disease is a collective term for a group of disorders of unknown exact cause, classified according to the type of inflammatory cell infiltration in the mucosa and sometimes deeper layers. It can occur in animals of all ages. The animal's genetic predisposition, mucosal immune system and environmental factors contribute to the development of the disease. Clinical signs such as diarrhea, hematemesis, ascites, vomiting can be seen. Endoscopy may reveal a nodular irregular mucosa and a pale grayish white to hyperemic dark pink color. Mucosal stiffness and ulceration are often seen. Histopathologically, it can be divided into lymphocytic-plasmacytic, lymphocytic, eosinophilic, neutrophilic and granulomatous. Biopsy is necessary for the definitive diagnosis of inflammatory bowel disease.

**Key words:** Gastrointestinal endoscopy, Gastroduodenoscopy, Inflammatory bowel disease, IBD

## UNDERTAKING RENEWABLE ENERGIES AS AN ALTERNATIVE FOR MEXICO

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**Abstract:** In the face of the traditional fossil fuel energy crisis, solar energy stands out as a green, clean, and renewable energy source. This article explores the efficiency of photovoltaic (PV) panels, which is crucial in the search for sustainable energy solutions is an alternative at the same time for entrepreneurs who want to start a business. The study presents an analysis of energy use and at the same time shows an alternative form of energy. achievable potential through photovoltaic technologies in the midst of growing global energy demands, the costs involved in implementing this type of energy are shown. The potential is highlighted if the costs as well as the current consumption are implemented. The article is structured with an introduction to the importance of energy as well as main theories that talk about the importance of natural resources, the impact that energy has on the production of sustainable energy, especially in the context of the energy objectives for Mexico and the Green Pact. The following sections discuss the accuracy necessary in the geographical positioning of measurement systems as well as their use. Social entrepreneurship focuses on developing projects that seek to solve social problems, beyond economic profitability. This research addressed the topic of social entrepreneurship and the barriers they have faced to carry out this type of activity, with the objective of identifying the profile of the entrepreneur and the regulatory barriers that may hinder the development of this type of initiatives.

## **EVALUATION OF SCHELLENBERG'S ARGUMENT OF DIVINE HIDDENNESS in THE CONTEXT of GOD'S ONTOLOGICAL STATUS AND HUMAN FREEDOM**

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### **ABSTRACT**

Schellenberg's "divine hiddenness" argument asks "why does a perfectly loving God hide himself and not clearly show his existence?" According to this argument, God must be a being who loves the beings he creates unconditionally and in every situation. A loving being does not upset the beings he creates by staying away from him, depriving them of himself, and not helping them in this sense. Therefore, the existence of people who do not believe even though they want to believe in God and strive for this purpose does not point to the hiddenness of God, but to his absence. It is possible to categorize the objections to the "divine hiddenness argument", which we can briefly express in this way, into three groups. The first objection is that a perfect being like God, who has a different mode of existence than humans, has the same ontological status as humans and is subject to sense will harm his ontological status. Secondly, it limits human freedom the God who stands across us in a concrete way or makes his presence felt more strongly than the current situation. Finally, it is possible to state that there is sufficient evidence for the existence of God in the universe and in man's own structure for those who want to see it.

First of all, the claims made by Schellenberg based on his views will be evaluated, and then the objections made against him and our own conclusions will be included. Accordingly, as Schellenberg claims, if the existence of God is more visible or clearly evident to the senses, we cannot talk about free choices of humans, therefore humans will be like beings that act in a programmed way, and there will be no free will. And at the same time, we will claim that man, due to his nature, cannot perceive God's existence in this world in a sensory way.

**Key Words:** Divine Hiddenness, Schellenberg, Human Freedom, Perfect Being, Sensuous Being

## INDONESIA LACKS PUBLIC ACCOUNTANTS

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### **Abstrack**

Indonesia has a population of more than 200 million people and has economic potential that will grow rapidly, but unfortunately it is not accompanied by adequate accountants. Indonesia has a large population, plus the domestic economy is growing rapidly and will continue to grow, which is considered a large economic power. However, this economic prediction is not directly proportional to the availability of domestic accountants. In this study, the research approach used is a qualitative method. Sources of data obtained using secondary data sources. The collection method in this study uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. Based on preliminary data in 2023, there are 1,500 accountants in Indonesia, but with an average population of 281 million, the ratio is 1: 121,000 or an accountant oversees 121 thousand people. In UPH itself, the Accounting Study Program is developing the ability for data analytics competency. So later on, accounting graduates will have the skill or ability in data analytics, so that they can use all the data that is processed into big data. It can be concluded that until now, UPH has more than 20 professors. This number makes the university the owner of the most professors for private universities.

**Keyword:** Indonesia, shortage, accountants



**THE NOBODIES: THOSE WHO ARE NOT, EVEN THOUGH THEY ARE. AN EXPLORATORY ANALYSIS OF THE INCLUSION OF THE HOUSEWIFE AS A RETIREE UNDER THE PIP**

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**Abstract**

Since 2004, the Previsional Inclusion Plan marked a before and after in the universalization of public policies, especially for a somewhat marginalized group in the field of social security: those who, at retirement age, cannot access a pension.

Through the Previsional Inclusion Plan, the State foresaw the insertion into the retirement system of individuals who did not meet the requirements for accessing old-age benefits stipulated by the Integrated Retirement and Pension System - incomplete formal contributions or absence of them, or full contributions but individuals under 65 years of age.

This policy corresponds to a partially non-contributory pension that does not require contributions to the pension system, helping in some cases to overcome situations of social vulnerability and poverty. Socially, it has also proven to be one of the most emblematic policies benefiting older women, to the extent that it has been recognized, in media discourse and colloquial discussions, as "Housewife Retirement." This is because the majority of individuals benefiting from the moratorium - part of the Previsional Inclusion Plan - have been women; in May 2010, 78% of the total benefits granted were to women, while the remaining 22% went to men (Social Security Observatory; 2020: 14).

This presentation analyzes the impact that inclusion in the PIP and receipt of benefits had on the monetary situation of households headed by female beneficiaries and on their economic autonomy.

**Keywords:** Social Inclusion, Retirement, PIP (Previsional Inclusion Plan), Housewife, Social vulnerability, Monetary situation, Female beneficiaries, Economic autonomy

## INVESTIGATION OF METAL FOAM MATERIALS AND THEIR PROPERTIES: A REVIEW

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### ABSTRACT

**Introduction and Purpose:** In recent years, research on metallic foams has been increasing due to their lightweight nature and resilience against impacts. The porous structure of these materials enhances their strength while improving thermal insulation and vibration absorption. Metallic foams, typically produced from various metals using special methods, offer advantages such as ease of processing, weldability, cost-effectiveness, and corrosion resistance. Their application areas span various fields including automotive, railway, construction, aerospace, shipbuilding, sports equipment, and biomedical applications. Additionally, they find functional uses in filtration, heat conversion, cooling systems, electrochemical applications, water purification, and fluid transmission. Noteworthy properties of metallic foams include lightweight, high compressive strength, low specific gravity, high hardness, and excellent energy absorption, making them attractive for aerospace, automotive, and energy-absorbing devices. As demands for engineering materials evolve, the need for lightweight and high-strength materials increases, and metallic foams are poised to meet this demand. This study provides information on research conducted worldwide and in Turkey regarding metallic foams, including production methods, application areas, and material properties.

**Materials and Methods:** Among the experiments mentioned in the literature, producing metal foams using Al powders and Alumix 231 to determine their properties is highlighted. While TiH<sub>2</sub> powder and SiC powder are added to Al powders, TiH<sub>2</sub> powder and Al<sub>2</sub>O<sub>3</sub> additive are used with Alumix powder. Foaming processes were applied at different temperatures, and the characteristics of the obtained foams were examined. The extensive potential use of metal foams in construction engineering is emphasized.

**Conclusion:** Steel foams have entered industrial production and are in the process of commercialization. Various production methods have been used to obtain foams with relative densities ranging from 4% to 100%, as observed in the reviewed studies. The high energy absorption and elastic modulus ratio of steel foams are significant features. Some of the reviewed articles utilized analytical and computational models to understand their behaviors, with further research proposed to increase their acceptance in structural applications. The studies examined the properties, production methods, and engineering applications of metallic foam materials, and the production parameters of metal foams have been optimized.

**Key Words:** Metallic foams, Lightweight materials, Engineering applications

## INVESTIGATION OF PHOTON INTERACTION PARAMETERS OF VINCA ALKALOIDS

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### ABSTRACT

**Introduction and Purpose:** Cancer, one of the leading diseases, caused and continues to cause approximately 10 million deaths worldwide in 2020. Treatment of cancer includes surgery, chemotherapy, radiotherapy, immunotherapy and others; While these have a huge economic impact on patients, over time patients develop drug resistance. 30-50% of cancers can be prevented or treated by implementing evidence-based preventive strategies. Vinca alkaloids, plant-based drugs, represent one of the oldest classes of antineoplastic agents with a broad spectrum of activity that has proven efficacy and acceptability in cancer treatment. Vinblastine, Vincristine, Vindesine, Vinorelbine and Vinflunine are important vinca alkaloids. Compared to other vinca alkaloids, vinflunine has been shown to have superior efficacy and an improved safety profile in both in vitro and in vivo studies.

**Materials and Methods:** In this work  $\mu_p$ ,  $Z_{eff}$ ,  $N_{el}$  values of vinca alkaloids were calculated using WinXCom computer program. WinXCom program calculates photon interaction cross-sections and attenuation coefficients for any element, compound or mixture, at energies from 1 keV to 100 GeV.

**Results:** According to the data obtained; It has been observed that the photoelectric absorption effect is dominant at low energies, Compton scattering is dominant at intermediate energies, and the double generation effect is dominant at high energies.

**Conclusion:** It is thought that the results obtained in this research may be useful in radiation dosimetry and treatment.

**Key Words:** Effective atomic number, Electron density, Mass attenuation coefficient, Vinca Alkaloids

## GLYCAN PROFILING OF SOYBEAN PLANTS UNDER ABIOTIC STRESS

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### ABSTRACT

**Introduction and Purpose:** Soybean (*Glycine max* L.) is one of the most valuable and cultivated crops, yet one of the most allergenic one as well (Pagano & Miransari, 2016; He & Xi, 2020). As important as it is as livestock feed, biofuel, pharmaceuticals and industrial purposes; soybean is also important for human diet as a great protein source with its high protein content up to 40-42% (Masuda & Goldsmith, 2009; Nahar et al., 2016). Glycosylation, one of the most important post-translational modifications, occur when glycans bind to molecules such as lipids or proteins and has two types; ; N-glycosylation and O-glycosylation. (Le Parc et al., 2014). Profiling and analyzing glycans of proteins can provide information about their qualities, functions and characteristics; which may give us further understanding behind the allergenicity, immune system responses and prebiotic effects (Maruyama et al., 1998; Shimoda et al., 2017). Soybean glycans have been studied and analysis in this field have priorly taken place as well, however these studies have mainly focused on allergenicity or therapeutic properties (Li et al., 2016; Picariello et al., 2013). An important factor for plants is abiotic stress. Stress effects are known to change and directly alter post-translational modifications (Hashiguchi & Komatsu, 2016). This study has mainly focused on the glycan protein changes associated with abiotic stress, and how it would change/benefit the prebiotic effects of natural soybean plant.

**Materials and Methods:** Soybean seeds were firstly surface sterilized, then placed in petri dishes containing media. After growing in petri dishes for 3 days, seedlings were transferred to other medias, with abiotic stresses. These stresses include cold, salinity, osmotic stress, basic and acidic environments. Following this step, isolated and purified glycans have been run on Sodium dodecyl-sulfate polyacrylamide gel electrophoresis (SDS-PAGE) for high-resolution separation of complex proteins.

**Results:** This study demonstrates that abiotic stress conditions not only affect the morphology of seedlings but also influence their germination periods and survival rates. While salt stress caused the seedlings to grow taller, osmotic stress caused them to shrink and germinate later than anticipated. Differences in pH resulted in seedlings germinating relatively faster. Dark and cold conditions also led to faster sprouting. All experimental groups exhibited lower survival rates than the control group, with acidic stress conditions being the most lethal.

**Discussion and Conclusion:** The morphological and structural changes caused by abiotic stress have affected the quality/survival of the soybean. While some seedlings were taller and germinated faster, some has shown regression in their development. It is concluded that better understanding of these mechanisms will not only improve the life quality of the plant, but also its effects after digestion such as allergenicity, therapeutic and prebiotic effects.

**Key words:** Soybean; Glycosylation; N-glycans; Prebiotics

## **İSABEY MOSQUE MINARET RETROFITTING PROJECT: IMPROVING THE SEISMIC RESISTANCE OF THE HISTORICAL BUILDING AND INVESTIGATION OF ITS STRUCTURAL INTEGRITY**

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### **ABSTRACT**

In this study, increasing the seismic resilliance and improving the structural integrity of the historical masonry minaret in İsabey Mosque in Izmir, Turkey was investigated. The minaret, built by İsa Bey in 1375, suffered significant damage, especially in an earthquake that occurred in the 16th century, causing its roof and minaret to collapse. Subsequent work focused on strengthening the structure with wooden supports and steel elements.

A comprehensive structural analysis was conducted to identify weaknesses in the minaret's design and measures were proposed to strengthen its seismic performance. The current structural condition and performance of the minaret were evaluated with detailed geotechnical parameters and finite element modelling. Analyzes were made and reinforcement methods were suggested using relevant regulations and standards, including the Turkish Building Earthquake Regulation (TBDY-2018).

Recommended retrofitting measures include CFRP fan anchors, CFRP strip fabrics, steel members, and the application of epoxy injections to provide structural stability and flexibility against seismic events. Combining historical context, advanced structural analysis methods and contemporary engineering practices, the contribution of this study to the preservation and sustainable use of the İsabey Mosque minaret is emphasized. The critical importance of comprehensive structural assessments and retrofit projects in the protection of culturally important heritage sites is emphasized.

**Key words:** İsabey Mosque, minaret, retrofitting, seismic resilience, structural analysis, Turkish Building Earthquake Code, CFRP, geotechnical parameters, historical heritage

**FLOW AND HEAT TRANSFER DYNAMICS OF TANGENT HYPERBOLIC  
NANOFLUID OVER A RIGA PLATE SUBJECT TO THERMAL RADIATION AND  
JOULEAN HEATING**

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**Abstract**

The dynamics of non-Newtonian fluid flow and heat propagation have a lot of implications in the engineering, manufacturing and technological processes. Typical examples are petroleum engineering, metallurgical engineering, metal casting, composite manufacturing, etc. In light of these, a numerical model is developed to assess tangent hyperbolic fluid flow and heat propagation over a Riga plate in the presence of thermal radiation, Joule and convective heating wall conditions. The designed model is transformed from partial to ordinary derivatives in the existence of similarity variables and then solved numerically by the Runge-Kutta Fehlberg method alongside the shooting techniques. The computational outcomes are publicized using figures and tables. It is revealed that the modified Hartmann number energizes the flow profiles as the thermal field appreciates due to thermal radiation and Joule heating.

**Keywords:** Heat propagation; Non-Newtonian fluid; Tangent hyperbolic fluid; Joule heating

**ASSESSING THE IMPACT OF NEEM LEAVE EXTRACT ON TERMITES  
INFECTED NEEM BARK (AZADIRACHTA INDICA) TREE AND WALLS OF  
BUILDING IN HUSSAINI ADAMU FEDERAL POLYTECHNIC KAZAURE**

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**Abstract**

Termites are social insects that live in colony deploying swarm intelligence in a self-organized system to exploit food sources and environment that could not be available to any insect acting alone. They often feed on cellulosic materials thereby making woody materials vulnerable to their attack. These make them to be common pests of forest tree species, especially neem tree. They also build nest like structure on the wall of buildings. The neem (*Azadirachta indica*) tree has many names due to its therapeutic properties, such as ‘Divine Tree’, ‘Life giving tree’, ‘Nature’s Drugstore’, ‘Village Pharmacy’ and summarily, panacea for all diseases. The present study aimed at using the neem leave extract to prevent the further growth of termites on the bark of neem trees and walls of building. Neem leaves were collected randomly from ten neem trees around the classroom area in the polytechnic via hand clipping and moved to the central laboratory complex in polythene bag. They were mixed together washed and bench dried for 15 days and pulverized into coarse powder. The extract was obtained by percolation of powered neem leave using 70% ethanol as solvent at a flow-rate of 10 drops/min until exhaustion. The extract was applied on the bark of neem tree and wall of buildings using a new sterilized painting brush and the selected portions were observed on daily basis for a period of two months. The results show almost zero growth of termites on the neem bark and wall of buildings. This finding corroborates the presence of anti-insecticidal substance in neem leave which is responsible for stoppage of the further growth of the destructive insects.

**Keywords:** Termite, Neem, Therapeutic Properties, Cellulosic Materials, Buildings

## **AN EXAMINATION OF MIGRATION AND INTEGRATION POLICIES IN THE ERA OF MULTICULTURALISM**

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### **ABSTRACT**

Migration presents both challenges and opportunities, for countries at levels. When individuals and families cross borders seeking safety new beginnings or better prospects the nations that welcome them must take on the task of assimilating these newcomers into their communities. This research explores the factors that drive migration and investigates how host nations manage the process of integrating these arrivals into society. By examining approaches to integration this study sheds light on the interactions between emerging trends, policy frameworks and the practical aspects of coexistence. The research methodology employed in this study involved analyzing migration data evaluating policy impacts and gathering insights through interviews, with migrants, policymakers and community leaders. By examining integration policies from angles, we aim to understand how they influence experiences and promote social unity. Studies show that successful integration depends on policies that respect migrants identities while fostering connections between groups. It stresses the importance of adaptability, community engagement and effective communication. Additionally, this research explores the significance of multiculturalism both as an idea and a practical reality. It also critically evaluates arguments suggesting that multicultural policies could create divisions but also suggests that embracing multiculturalism in a way could enhance society overall. Through its discoveries this study sheds light on how integration policies can have impacts, on both migrants and local communities.

**Key Words:** Migration Dynamics, Integration Strategies, Multiculturalism, Sociopolitical Analysis



## THE EFFECT OF VARIOUS PARAMETERS ON SULFATE REMOVAL BY ION EXCHANGE

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### ABSTRACT

**Introduction and Purpose:** Sulfate is a common component of many natural waters and wastewater, existing either as a dissolved compound or as insoluble salts in oceans and seas. The primary source of human-induced sulfate contamination in the environment originates predominantly from industrial wastewater. While domestic wastewaters typically contain sulfate concentrations ranging from 20 to 500 mg/L, certain industrial effluents can have sulfate concentrations of several thousand milligrams per liter. A limit value of 250 mg/L sulfate has been set for drinking water, as elevated levels of sulfate concentration can lead to intestinal problems such as diarrhea. Moreover, excessive sulfate concentration can lead to issues such as corrosion in treatment plants and distribution networks, as well as odor due to the presence of H<sub>2</sub>S in conditions where the ambient pH is low. Therefore, the removal of sulfate from waters is crucial for both human health and industrial purposes. This study investigates the parameters affecting sulfate removal from synthetic sulfate solutions using ion exchange resin.

**Materials and Methods:** The removal of sulfate from synthetic sulfate solutions was investigated using SBA 2000 gel-type strong base Type II anion resin in the study. The effects of contact time (5-240 min), solid/liquid ratio (2.5-12.5 g/L), pH (4-10), and initial concentration (250-1000 mg/L) parameters on sulfate removal (%) and resin uptake capacity  $q$  (mg/g) were examined. The experiments were carried out in a batch system with 100 mL sample under constant conditions of temperature (25°C) and stirring speed (200 rpm). Sulfate analyses were performed using a spectrophotometer according to the method specified in SM 4500-C.

**Results:** The obtained results from the experiments were used to calculate the removal efficiency (%) and the resin uptake capacity. It was observed that equilibrium was reached within 60 minutes for sulfate removal. It was determined that the removal efficiency increased with the solid/liquid ratio, pH, and initial concentration, while the uptake capacity decreased with an increase in the solid/liquid ratio and increased with pH and initial concentrations.

**Discussion and Conclusion:** As a result of the experiments, a maximum removal efficiency of 88% and a uptake capacity of 87.76 mg/g were achieved. It was concluded that anion exchange resins are highly effective in sulfate removal and can be utilized in industrial processes.

**Key Words:** Sulfate removal, ion exchange, resin

## EFFECT OF VISUAL ATTENTION ON SPEECH DISCRMINATION ABILITY IN YOUNG ADULTS WITH NORMAL HEARING: A PILOT STUDY

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### ABSTRACT

**Introduction and purpose:** The presence of noise and speech stimuli in the environment at the same time makes it difficult to perceive the speech stimulus. When people are exposed to distracting stimuli, they make additional effort and feel tired and weak. The presence of noise and distractions in people's environment reduces their ability to understand speech. Purpose of the study; To investigate whether distracting visual stimuli affect speech in noise and to examine its relationship with the Speech, Spatial Perception, Hearing Quality (QUIQ) Scale.

**Material and Method:** The study was conducted with 40 volunteers (20 men, 20 women) ages of 18-26, whose native language was Turkish, with normal hearing and without any additional diagnosed problems (eye, head and neck, psychological). Turkish Hearing in Noise Test (Tr-HINT), which is a speech understanding test in noise, was applied to the participants without first presenting the visual stimulus and then by presenting the stimulus. Signal to noise ratios (SNR) obtained for both conditions were recorded and analyzed by comparison with Paired Samples t-Test. The relationship between the Tr-HINT result, which was performed without presenting a visual stimulus to the participant, and the QUIQ Scale was investigated with regression analysis.

**Results:** There is a significant difference ( $p < 0.05$ ) between the Tr-HINT test results performed without presenting visual stimuli to the participants and the Tr-HINT test results performed with visual stimuli presented. Tr-HINT signal-to-noise ratios increase in the presence of visual stimuli, and speech understanding in noise deteriorates in the presence of stimuli. There was no significant relationship ( $p > 0.05$ ) between the QUIQ Scale and the Tr-HINT results without visual stimulation.

**Discussion and Conclusion:** Research shows that visual attention affects the ability to understand speech in noise in young adults with normal hearing.

Educators should be informed about the effects of visual attention on speech understanding in noise on the job training. Thus, maximum listening performance and auditory processing is supported for listeners in noisy environments. Educators can learn how to prepare educational environments and educational tools appropriately and present them correctly.

**Key Words:** Visual stimulus, Attention, Understanding speech in noise, Individuals with normal hearing

## **"SILENT WITNESS: RE-EXAMINING THE EFFICACY OF BOYCOTTING IN GENOCIDE PREVENTION"**

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### **ABSTRACT**

In recent years, there has been discussion and examination surrounding the idea of boycotting as a means of preventing genocide. Scholars and decision-makers alike have questioned the efficacy of consumer boycotts, divestment campaigns, and economic sanctions in discouraging acts of genocide. The purpose of this abstract is to reevaluate the effectiveness of boycotting as a tacit witness to crimes and its ability to stop genocide.

Boycotting has long been used as a nonviolent means of protesting injustice and oppression. Boycotts have been a potent weapon in the fight against institutionalized discrimination and violations of human rights, from the Montgomery Bus Boycott during the American Civil Rights Movement to the anti-apartheid boycotts in South Africa. Boycotting is sometimes considered a means for people and organizations to show their moral outrage and support for victims in the context of preventing genocide. Applying economic pressure to those who commit genocide is one of the main ways boycotts work to stop it. Boycotts aim to sever financial support for genocidal operations by focusing on businesses, sectors, or governments involved in them. The usefulness of divestment efforts and economic sanctions in stopping genocide, however, is still debatable. While economic pressure can have symbolic significance, critics contend that it may not always result in observable changes in the real world. Beyond just financial concerns, boycotting is a means of moral disapproval and awareness-building. Refusing to support companies or governments engaged in genocide is one-way people show their opposition and bring attention to ongoing crimes. This moral position has the power to sway public opinion, foster international solidarity, and put pressure on policymakers to punish offenders. Boycotting serves as a quiet witness in this way, refusing to remain silent and complicit. In the context of preventing genocide, boycotting presents several difficulties and restrictions despite its possible advantages. A significant concern is the challenge of guaranteeing widespread involvement and ongoing dedication to boycott initiatives. In the absence of broad backing from investors, governments, and consumers, boycotts might find it difficult to apply significant pressure on the offenders. Concerns exist over unforeseen outcomes as well, like as injuring innocent communities or intensifying conflict dynamics. In conclusion, a thorough comprehension of the methods, effects, and ethical ramifications of boycotting is necessary before reevaluating its effectiveness in preventing genocide. Boycotts are efficient means of expressing moral outrage and drawing attention to crimes; yet, it is unclear if they can stop genocidal acts. Going forward, more investigation is required to evaluate the boycott's place in all-encompassing plans to stop genocide and advance human rights.

## **BIBLIOMETRIC ANALYSIS OF STUDIES ON GYNECOLOGICAL CANCERS**

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### **SUMMARY**

Gynecological cancers are among the biggest causes of morbidity and mortality after breast cancer. The symptoms experienced as a result of gynecological cancers and the chemotherapy, radiotherapy and surgical treatments applied are perceived by women as a threat to their body image, sexual identity and reproductive ability, and negatively affect the health of the woman in particular, the family and the society in general. This study is the first bibliometric analysis compiling studies on "gynecological cancers". Scopus search engine was preferred for this. Data was downloaded from the relevant search engine on 30.10.2023. These data were analyzed with VOSviewer and Biblioshiny package programs. "While China is the leading contributor in terms of number of articles, the United Kingdom leads in numbers of international collaborations." The publication in which the word "gynecological cancers" is used is the article titled "Mortality and pulmonary complications in patients undergoing surgery with perioperative SARS-CoV-2 infection: an international cohort study" published by Bhangu A., which received 1154 citations. The study also identifies the top three most cited journals: "Bmj Case Reports, Cancers, International Journal Of Gynecological Cancer". In particular, "University Hospital" stands out as the institution most involved in this field with its productive research output. The most published author is "Zhang y" with 39 articles. The most used keywords include "gynecological cancer", "ovarian cancer", "cancer". The findings of this study are valuable not only to researchers and practitioners interested in gynecological cancers, but also to anyone who wants to gain insight into its practical applications and potential future developments. Ultimately, this research contributes to the ongoing dialogue surrounding the importance of "gynecologic cancers" in women's health and provides a roadmap for future research efforts in this area.

**Key words:** Gynecological cancers, bibliometric analysis, vosviewer, r studio, biblioshiny.

## **EVALUATION OF COUNTERMOVEMENT JUMP IN 16 YEARS OLD GIRLS VOLLEYBALL PLAYERS**

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### **ABSTRACT**

Vertical jump is combined with the assessment of the strength and strength of the muscles of the lower extremities that are fundamental components of the volleyball game's play. The Countermovement Jump with arm (CMJA) test as a specific specifically for the assessment of the offensive force of volleyball players. Methods: Female (F) average volleyball players were tested in CMJA at the GFRP; Force (F max), Power (P max) and gravity shift relationship Jump Height (JH). Anthropometric measurements of volleyball players were also developed; Body Height (BH cm), Body Mass (BMI% kg/m<sup>2</sup>), Body Weight (BW kg). Results: The differences between the two groups found in the study resulted in significant differences in BH cm (F-172, M-187.3), BW kg (F- 62.2), BMI kg / m<sup>2</sup> (F-21.1), Jump place in JP cm (F-266), Jump Attack in JA cm (F-274). But even the data captured by the Leonardo platform in the CMJA test gives us a noticeable difference between the players. Conclusion: The results obtained suggest changes to the performance of volleyball players in "vertical jump" in the parameters of force, speed, and power. These indicators are valid for any trainer or volleyball player to implement a detailed and specific training program for the further development of the physical qualities of volleyball players, especially vertical tipping in gaining the lower extremity muscular power.

**Keywords:** countermovement, volleyball, jump, arm

## THE CURRENT LASER SYSTEMS IN DENTISTRY

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### ABSTRACT

Lasers are a precise and effective way of performing many dental procedures and their use has become widespread in recent years and has become one of the gold standard treatment methods in routine dentistry. They have positive effects in almost all areas of dentistry such as periodontology, endodontics, orthodontics, oral pathology, oral surgery, implantology, pedodontics, prosthodontics and restorative treatments. The use of laser photon energy is based on its ability to be absorbed by the target tissue. Compared to other conventional methods, it is a very advanced treatment method because the laser beam can be easily directed and high amounts of energy can be focused on the target points. Lasers are classified into solid, liquid, gas and electronic according to the active substance used in them. They are also subdivided according to the movement of light, wavelength, energy, the degree of damage to vital tissues and the way it is applied. Lasers used in dentistry are Nd: YAG, Er: YAG, ErCr:YSGG, diode and CO<sub>2</sub> lasers. The first three of these, namely Nd: YAG, Er: YAG and ErCr:YSGG are used in both soft and hard tissues, while diode and CO<sub>2</sub> lasers are used only in soft tissues. With lasers used in hard and soft tissues, maximum efficiency and patient comfort can be achieved with a minimally invasive approach in dental treatments. In addition to little or no-bleeding surgical procedure, reduced need for anaesthesia, minimal post-op pain, anti-inflammatory effect, disinfection, dental bleaching, acceleration of tooth movement, reduction of dentin sensitivity, caries diagnosis, cavity preparation, contributing to tertiary dentin formation in vital tissues, biostimulant, antibacterial and haemostatic effects. The aim of this review is to evaluate the application fields, advantages, disadvantages and limitations of current laser systems used in dentistry.

**Keywords:** Dentistry, soft and hard tissue applications, laser

## EVALUATION OF IDA MOUNTAINS ENDEMIC PLANT SPECIES IN TERMS OF MEDICINAL AND AROMATIC

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### ABSTRACT

**Introduction and Purpose:** Medicinal and aromatic plants have been used in different areas from past to present. These plants are used to obtain natural dyes, drug making, perfume industry, spice plants and design plants. This study was carried out to evaluate the medicinal and aromatic aspects of endemic plant species in Balıkesir, Edremit, Ida Mountains.

**Materials and Methods:** The study was carried out between 2023-2024 on endemic plant species found in Balıkesir, Edremit, Ida Mountains. In line with the literature, endemic plant species and medicinal and aromatic plants were identified. Medicinal and aromatic plants were evaluated according to their intended use, method of use and the part used.

**Results:** 32 endemic plant species were identified in Ida Mountains. 22 species of these plants were identified as medicinal and aromatic plants. It was determined that these plants were generally used for pain relief, cold, cough, wound healing and respiratory problems.

**Key Words:** Medicinal and aromatic plants, Endemic plant, Ida Mountains, Plant use, Ornamental plants

## EVALUATION OF THE USE OF PUBLIC HOBBY GARDENS IN ÇANAKKALE CITY CENTER

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### ABSTRACT

**Introduction and Purpose:** Hobby gardens are areas where people living in cities can be in touch with nature, meet their recreation needs, get rid of the negative effects of intense urban tempo and allow them to have a good time together. In cities with rapid urbanization, hobby gardens are alternative natural breathing spaces. Çanakkale is increasing its urbanization with its increasing population. This study aimed to evaluate the use of Gelincik Hobby Garden located in Çanakkale City Center.

**Materials and Methods:** The study was conducted in Gelincik Hobby Garden located in Esenler District of Çanakkale City Center between 2023-2024. On-site inspections and observations were made in the Gelincik Hobby Garden, and photographs of the area were taken. Face-to-face interviews were held with hobby garden users and user experiences were evaluated. Additionally, a SWOT analysis was conducted on the area.

**Results:** Gelincik Hobby Garden has a total area of 9705 m<sup>2</sup>. It contains 19 hut modules for storing wooden agricultural implements. The total hut module is 557.1 m<sup>2</sup> and each hut has 4 rooms. A total of 76 hobby gardens between 49-120 m<sup>2</sup> were determined. Hobby garden areas are made available to users at specified periods. In the hobby garden, vegetables are grown intensively and partly garden flowers are grown.

**Key Words:** Hobby Garden, Urbanization, Recreation, Plant Breeding, Agriculture, Thematic Garden



## **EXPONENTIAL SMOOTHING APPROACHES FOR ESTIMATING THE DAILY PRICE OF THE GOLD PARTICIPATION FUND IN THE INDIVIDUAL PENSION SYSTEM**

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### **ABSTRACT**

In recent years, the significance of the Individual Pension System (IPS) has been on the rise as an investment mechanism. IPS seeks to enhance retirees' quality of life by channeling their savings into investments, thus securing supplementary income during retirement. The funds contributed by investors to the system are allocated to retirement investment funds, which come in various types offering differing levels of risk and return to participants. In this study, the aim was to develop a forecasting model using the exponential smoothing method for the daily price of the Gold Participation Fund in the aggressive risk category. The data used in the study covers the dataset of a pension company operating in Turkey between 2020 and 2023. The data was divided into training set (75%) and validation set (25%). Mean Absolute Percentage Error (MAPE) was used as the error measure for the developed forecasting models for both the training and validation sets. As a result of the study, the ETS(M,A,N) model was determined for the Gold Participation Fund. This indicates that there is a trend representing a constant increase or decrease in the current dataset and a seasonal pattern that changes with a constant expansion or contraction. The MAPE values for the training and validation sets were calculated as 0.9151 and 9.6488, respectively. Consequently, demonstrating a performance based on forecasting in the fund management process of the individual pension system enables pension companies to market more effectively and customers to achieve higher returns.

**Key Words:** Individual Pension System; Retirement Investment Fund; Gold Participation Fund; Forecasting; Time Series; Exponential Smoothing

## **BANKING RESILIENCE REMAINS MAINTAINED AMID STRENGTHENING US DOLLAR AND GLOBAL GEOPOLITICAL PRESSURE**

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### **Abstract**

The Financial Services Authority (OJK) assesses that the risks faced by the national banking industry due to the recent strengthening of the United States dollar can still be properly mitigated. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. Based on the results of the stress test conducted by the OJK, the current weakening of the rupiah exchange rate has a relatively insignificant direct effect on bank capital, considering that the net foreign exchange position (PDN) of Indonesian banks is still far below the threshold and, in general, the PDN position is "long" (foreign currency assets are greater than foreign currency liabilities). OJK carries out stress tests regularly on banks using several macroeconomic scenario variables and considering the main risk factors, namely credit risk and market risk. It can be concluded that OJK always carries out optimal supervision. To ensure that various risks resulting from weakening exchange rates and relatively high-interest rates for each bank are properly mitigated, the OJK also asks banks always to monitor the potential impact of transmission from global and domestic economic developments on bank conditions and take the appropriate mitigation steps required.

**Keywords:** OJK, banking, resilience, strengthening

## BASIC PARAMETERS OF IDENTITY CONSTRUCTION OF NEW CONSERVATIVE INSTAGRAM PHENOMENA

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### ABSTRACT

**Introduction and Purpose:** Instagram influencers create a virtual identity with their posts and convey important messages to their audiences through these identity representations. This study aims to reveal what kind of identity the phenomena represented in the conservative Islamic discourse build through Instagram, with what visual and audio images they produce this identity, and to examine the messages and sub-meanings conveyed to the users through this. In the study, the concept of neo-conservatism, which emerged in the 1980s, was questioned, and the answer to the question of which visual and audio images were used to construct neo-conservative identities on social media was sought. Based on this basic problem, the essence and nature of the conservative identities produced by Instagram influencers were questioned and the messages conveyed in this manner were interpreted within the framework of Instagram's attractive culture and context.. **Materials and Methods:** In the study, multi-modal critical discourse analysis method was used and the identity representations of conservative Instagram influencers were examined with this method. In this context, a preliminary research was first conducted in the study, and research categories were created by watching the photographs and videos shared by the phenomena and associating the identity and cultural representations encountered with the theoretical data of the study. Then, the photographs and videos determined as samples were watched and an analysis was carried out within the framework of the relevant categories. In the next step, the analysis of the relationships between the obtained data was started. Qualitative analysis was carried out to interpret the data and reveal messages and hidden meanings. The obtained qualitative research findings were interpreted holistically around the research question and purpose, and comments and evaluations related to the research topic were conveyed. **Results:** The findings obtained by examining 27 posts of the 3 phenomena examined in the study show that the conservative identity construction is based on a highly capitalist consumption ideology and a luxurious consumerist lifestyle. It is seen that the body is used as an important tool in the identity construction of conservative phenomena and the principle of body privacy is eliminated. Conservative influencers naturalize and idealize consumer capitalism, especially with their trendy clothes, accessories, bags and shoes from expensive and famous brands. Conservative identities are built through ownership. Religious belief representations of phenomena are also used in identity construction. **Discussion and Conclusion:** The results obtained in this study are that in the new conservative identity construction, the body becomes an object by losing its privacy, body language is used interestingly and freely, the phenomenon of ownership is used as the most important parameter, the capitalist consumption ideology is idealized and glorified, an identity is defined through the use value of commodities, and religious/Islamic discourse is used. shows that it is used.

**Key Words:** Instagram; phenomenon; neoconservatism; identity; representation; message.

**STABILITY ANALYSIS OF THREE PREDATORS-ONE PREY MODEL  
WITH FEEDBACK CONTROL AND CAPUTO FRACTIONAL DERIVATIVE**

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**ABSTRACT**

Prey-predator relationships, which are of great importance for the protection and sustainability of natural life, maintain the population balance in ecosystems. The predator-prey model was introduced to determine the existence of detailed situations of these relationships.

The Prey-Prey model is a mathematical model used in ecology and biology to understand population dynamics. This model examines the predation of a prey species (e.g., deer) by one or more predator species (e.g., wolves) and how the populations of both species change as a result of this interaction.

In this paper, an ecological model with three predators competing over a prey with a generalized functional response function is examined. The effect of three predators on one prey was investigated by focusing on a fractional order three-predator-one-prey model that includes feedback control for the prey population. The reason for considering a comprehensive class of generalized functional interactions is to model diversity in predator-prey interactions with the environment. These interactions can be affected by many factors, such as the environment and the adaptation of the four species. By analyzing the existence of different equilibrium points, some situations have been derived to ensure the asymptotic stability of these equilibrium points. The existence of five different equilibrium points has been analyzed. It has been observed that these are the extinction point of four species, the equilibrium where there is no first predator, the equilibrium where there is no second predator, the equilibrium where there is no third predator, and the equilibrium where four species can live together.

By analyzing the existence of equilibrium points, it has been determined that these populations may have various scenarios. These scenarios include extinction of four populations, extinction of three species of predators, extinction of each predator population in turn, and coexistence of four populations.

Theoretical results have shown that feedback control plays an important role in regulating the coexistence of prey species and predator species, providing the necessary conditions for a positive balance in which three predators and a single prey can coexist..

**Keywords:** Prey predator model, fractional derivative, feedback control

## DEER SYMBOLISM IN ANTALYA LEGENDS FROM GEYİK MOUNTAIN TO ABDAL MUSA

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### ABSTRACT

**Introduction and Purpose:** Antalya, as the head of Anatolia extending to the Mediterranean, is a city that stands out with its tourism features and contains various sources such as ancient Greek, Roman, Byzantine, Seljuk and Ottoman in its cultural structure. There is also a deep-rooted folk culture and ancient legends bearing the traces of past periods. Unlike other narratives, legends are texts that do not lose their value because they have the characteristics of credibility and concrete reality. Areas with their own legends take on a mystical atmosphere, thus continuing to maintain their influence even after centuries. Our aim in this study is to evaluate the symbolism of deer in the context of some legends told in Antalya and to reveal the new meanings gained by the same symbol in different texts.

**Materials and Methods:** Since the study is based on legendary texts, articles, papers and internet sources, especially theses on Antalya folk culture, were scanned; Legends that could serve as examples of "deer" symbolism were used.

**Results:** The texts discussed around deer symbolism have shown that the symbols embedded in legends can gain different meanings depending on their context. However, in the legend of Deer Mountain, the deer, which shares the transformation of a commoner, has been seen to mediate the miracle of saints in the hagiographic narratives about Abdal Musa, and the element of earth and sky in St. Nicholas, symbolized by the name of "Santa Claus".

**Discussion and Conclusion:** Legends are narratives with high impact that are shaped by collective consciousness. The symbols in these narratives bear traces of human consciousness. In Antalya legends, deer lives as a very functional symbol in terms of guidance, a bridge between earth-sky, body-spirit and a protective spirit, in addition to meanings such as aesthetics, power and love.

**Key Words:** Antalya, Legend, Symbol, Deer

## ETHICS SCIENCE AND NURSING

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### ABSTRACT

**Purpose:** This article aims to present the issue of ethics in nursing from a broad perspective in the light of current literature.

**Materials and Methods:** Within the scope of the study, Google Scholar and PUBMED search engines and the Turkish Higher Education Institution National Thesis Center database were used. In the research, the words 'ethics', 'ethics in nursing', 'ethical codes' and 'ethical principles' were searched and 608 abstract and full text articles in Turkish, 56 articles in English and 807 theses published between 2018-2024 were found. 134 articles and 100 theses that met the research criteria were examined. A systematic review was created within the scope of the studies.

**Results:** Among the theses examined in this study, 100 theses on ethics in nursing were reached. 17 of the theses reached were included in the research. 1 of these theses was published in 2018, 4 in 2019, 2 in 2020, 1 in 2021, 4 in 2022, 4 in 2023 and 1 in 2024. Of the theses included in the study, 1 is a doctoral thesis and 16 are a master's thesis. When the studies were examined, it was found that nurses' ethical sensitivities were good and their ethical perceptions and attitudes were high. In this regard, it has been observed that the existence of ethical values in a profession enables the creation of a healthy and successful business environment and taking steps within the framework of common rules.

**Conclusion and Suggestions:** According to the results obtained from the study, having ethical values in a profession enables the formation of a healthy and successful business environment and taking steps within the framework of common rules. For this reason, it is considered very important for nurses to keep their professional knowledge and skills at the highest level, as well as to have good ethical reasoning skills. The use of ethical principles supports nurses in making decisions and increases professional autonomy. It has been determined that studies on ethics in nursing are common in the literature. It is recommended to increase the number of studies in order to contribute to the nursing literature.

**Keywords:** Ethics, Nursing, Ethical Codes, Ethical Principles

## **REAL-TIME FACE RECOGNITION BASED ON MULTI-TASK LEARNING WITH RASPBERRY PI**

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### **ABSTRACT**

This paper uses the Raspberry Pi, a popular single-board computer to investigate an approach to multi-task learning for face recognition. The paper aims to demonstrate how this low-cost platform can execute complex deep-learning tasks in real-time. To accomplish this, we utilized MobileNet, MobileNetV2, and InceptionV3 as the core models for shared layers, owing to their balance of efficiency and accuracy. The training was conducted on the VGGFace2 dataset, a widely recognized source of facial images for machine-learning applications. The multi-task learning approach enabled the simultaneous execution of three tasks: identifying individuals, estimating their ages, and predicting their races. The system demonstrated impressive accuracy across all tasks by leveraging shared layers among these deep learning models. Testing results were exceptional, with 95% accuracy for identifying people, 97% for age estimation, and 98% for ethnicity prediction. These high success rates suggest that Raspberry Pi-based face recognition systems have significant potential in real-world applications, such as security systems, personalized customer experiences, and demographic data analysis. The study concludes by emphasizing the significance of multi-task learning on compact hardware. The high accuracy rates achieved indicate that complex deep learning models can operate efficiently in a resource-constrained environment. This finding opens the door to further innovation, allowing developers to create more adaptable and accessible face recognition solutions. The multi-task approach also suggests a path towards more efficient resource usage, potentially reducing the overall computational load and energy consumption in real-time applications. Overall, the paper provides a compelling case for implementing multi-task learning for face recognition on Raspberry Pi, with impressive accuracy and versatility. This work points towards future opportunities for extending this approach to other low-cost platforms and multi-functional applications, driving innovation in edge computing.

**Key Words:** Multi-task; Raspberry Pi; Deep learning; Face recognition; Real-time.

## HOW DOES THE WAR ECONOMY AFFECT THE TOURISM SECTOR?: ASSESSMENT OF THE RUSSIAN-UKRAINE WAR

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### ABSTRACT

**Introduction and Purpose:** With globalization, countries have become closer to each other, and their growth and development as a result of exchanging more goods and services has led to an increase in foreign trade. Of course, countries' trade with each other can be affected by many factors such as crises, wars, epidemics, social and political events. The welfare levels of countries increase with foreign trade. In this case, it affects the income of individuals and increases their quality of life. In addition, the impact of foreign trade on the prices of goods and services also affects the position of countries in terms of mutual competition and may cause them to be in an advantageous or disadvantageous position. Wars have significant consequences for trade between countries, not only for the countries involved but also for other countries. Many countries have been negatively affected by the Russia-Ukraine war, which occurred when the world had not yet recovered from the effects of the coronavirus. When the effects of the Russia-Ukraine war on Turkey's economy are analyzed, it is possible for Turkey to emerge from the war process more advantageous geostrategically, geopolitically and geoeconomically with the right political and economic moves. Turkey will be repositioned as a more important and strategic partner due to its critical position on both security and energy supply chain. The aim of this study is to investigate the extent to which the Russia-Ukraine war has affected the tourism sector, which is the most important sector affecting Turkey's income.

**Materials and Methods:** For this purpose, in order to examine the effects of the Russia-Ukraine war on Turkey's tourism economy, the pre-war and post-war situation will be compared with tables and graphs in line with the announced data.

**Results:** The effects of the war on Turkey's economy have varied depending on the relations between the two countries, but it has led to a number of consequences, such as the contraction of imports and exports, a decrease in tourism revenues, energy prices and the ongoing increase in inflation.

**Discussion and Conclusion:** The inflationary pressure created by the contraction in supply with the outbreak of the war affected Turkey as well as the whole world. Moreover, in Turkey, which had serious budget deficits due to attempts to finance the effects of the contraction in total demand in the pre-war period with the increase in public expenditures, the war-induced inflationary pressure caused the economic situation to worsen.

**Keywords:** War Economy, Russia-Ukraine War, Turkey.



## INCOME INEQUALITY AND POVERTY IN TURKEY

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### ABSTRACT

**Introduction and Purpose:** Income inequality, which shows the degree of income distribution in economies, emerges as a psychological and social problem as well as an economic problem in both developed countries and developing and underdeveloped countries. Because income distribution is one of the most important development criteria of countries. A fair distribution of income causes individuals in that society to live more comfortably. Income inequality should not only be perceived as an economic problem. This problem will lead to a decrease in savings, and a decrease in savings will lead to a decrease in investments, which in turn will lead to a slowdown in the market and a further decrease in the income levels of individuals and an increase in poverty. **Materials and Methods:** For this purpose, income inequality and the accompanying poverty in Turkey will be analyzed in the light of the announced data.

**Results:** An equitable distribution of income among individuals increases their welfare and also contributes positively to economic growth as they spend more with their increased incomes. For this purpose, income inequality and its elimination as well as poverty reduction are among the main objectives of policy makers. **Discussion and Conclusion:** In order to eliminate income inequality and reduce poverty, practices to encourage fair income distribution should be implemented. In addition, systems must be put in place to make education and health services easily accessible to all. Policies should be implemented to strengthen labor protections as well as to improve social safety nets. Moreover, policymakers need to provide financial support to those with little capital and ensure equal access to financial instruments.

**Keywords:** Income Inequality, Poverty, Turkey.

## **GAS THERAPY AND NURSING IN CANCER**

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### **ABSTRACT**

Cancer is one of the most serious diseases that threaten human health worldwide. Currently, cancer treatment mainly includes surgery, chemotherapy and radiotherapy, but simple elimination of cancer cells with cytotoxic radio/chemotherapeutic drugs is often not very effective and may even be adverse due to induction of drug resistance, metastasis and relapse. Gas therapy, which has emerged as a new cancer treatment model in recent years and is a promising treatment method, has attracted increasing attention in the treatment of inflammation-related diseases, especially cancer, and plays important roles in cancer treatment with its high therapeutic effectiveness. Gas therapy is gaining increasing attention as a therapeutic approach in cancer treatment due to its lack of resistance, low toxicity, short treatment duration, and synergy with chemotherapy and radiotherapy. Commonly used therapeutic gas molecules include nitric oxide (NO), carbon monoxide (CO), hydrogen (H<sub>2</sub>), hydrogen sulfide (H<sub>2</sub>S), and sulfur dioxide (SO<sub>2</sub>). CO, H<sub>2</sub>S and H<sub>2</sub> mainly act on mitochondria and disrupt mitochondrial functions, causing tumor cell apoptosis. Mitochondria, nuclei and membranes of tumor cells can be identified as targets for gases. Gas molecules are essential in maintaining biological homeostasis and physiological functions as specific chemical substances for biological information transfer. As an emerging modality, gas therapy has been found to have anticancer mechanisms and targets that are quite different from other traditional therapy modalities and can be used to assist many other modes of therapy to improve therapy effects.

**Key Words:** Cancer, gas, nursing, therapy

## SONODYNAMIC THERAPY AND NURSING IN CANCER

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### ABSTRACT

Despite the tremendous efforts made for its treatment, cancer is still the most serious health problem faced by humanity in the 21st century due to its high morbidity and mortality. There are currently four main approaches approved for the clinical management of cancer: surgery, chemotherapy, radiotherapy, and immunotherapy. However, these treatments are also associated with high relapse rates and uncontrollable side effects. Therefore, what is the future of anti-cancer treatment with high efficiency and low medical costs? Recently, sonodynamic therapy has attracted worldwide attention as a noninvasive cancer treatment method that uses chemical sound sensitizers and high-intensity focused ultrasound. Sonodynamic therapy is a minimally invasive anti-cancer treatment that involves a chemical sonosensitizer and focused ultrasound. A high-intensity focused ultrasound beam is used to destroy or denature targeted cancer tissues. The combination of ultrasound and chemical sound sensitizer strengthens the drug's ability to target cancer cells. Combining multiple chemical sensitizers with ultrasound can create a synergistic effect that can effectively disrupt tumorigenesis, trigger cell death, and elicit an immune response. Sonodynamic therapy is a treatment that does not require incisions or drilling, reducing surgical risks and recovery time. By adjusting the energy and depth of focus of the ultrasound, the therapy can maximize the protection of surrounding healthy tissues. Compared to radiation therapy or chemotherapy, sonodynamic therapy treatment produces no radiation and reduces damage to surrounding normal tissues. Additionally, depending on the patient, the therapy allows individualized treatment plans to be designed to improve outcomes.

**Key words:** Cancer, nursing, sonodynamic therapy

## MEETING THE ENERGY NEEDS OF A MILITARY FACILITY LOCATED IN A COLD CLIMATE ZONE WITH RENEWABLE ENERGY RESOURCES

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### ABSTRACT

**Introduction and Purpose:** In recent years, the sector's development has accelerated with investments in the defense industry worldwide. Türkiye aims to have an essential place in the future with its investments in the defense industry. As a result of this development, energy use in the defense industry has become a significant issue. Most of the energy needed is met from fossil fuels. However, in addition to the environmental impacts of fossil fuels, the prediction that fossil fuels will run out in the not-too-distant future has led to the widespread use of renewable energy. In this context, integrating renewable energy into the defense industry can be adopted as a new approach.

**Materials and Methods:** In this study, the efficient use of renewable energy in the Turkish Armed Forces (TAF) was investigated, and the energy needs of a full-scale military facility located in a cold climate zone were met with renewable energy sources. The study consists of data collection, analysis, and evaluation of the results. Firstly, the energy values required by the military facility in the cold climate zone are taken hourly, and a load profile is created yearly. The analysis is performed using Hybrid Optimization of Multiple Energy Resources (HOMER) software. The analysis includes the creation and operation of the components during the life cycle determined for the system by calculating the life cycle cost.

**Results:** A hybrid system consisting of solar panels, a wind turbine, a battery, and a generator is installed, and the energy needs of the system are met by solar panels, wind turbine, battery, and generator. Using 110 kW solar panels, two wind turbines, a 100 kW generator, 424 batteries, and a 52 kW inverter, the renewable energy penetration of the system is 99.6%, the operating cost is 12.781 \$/year, and the unit energy cost (LCOE) is 0.0973 \$/kWh.

**Key Words:** Defense Industry; Renewable energy systems, Hybrid system, Techno-economic analysis

**(EFFECTS OF LEPTIN, GHRELIN, INSULIN HORMONES IN GASTRIC DISEASES  
IN CATTLE)**

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**ABSTRACT**

It has been observed that the relationship between hormonal mechanism and motility is accompanied and influenced by many hormones, especially ghrelin, leptin and insulin. Ghrelin is a peptide hormone secreted mainly from gastric and gastrointestinal endocrine cells. There is evidence that ghrelin regulates many physiological processes such as appetite stimulation, regulation of insulin and pancreatic hormone secretion, stress management and glucose metabolism, especially GH (Growth Hormone) hormone. Another hormone whose effects on nutrition, energy balance and reproduction are well documented is leptin. It is mainly secreted by adipose tissue and is important in lipid metabolism and maintenance of fat stores in ruminants. The effects of leptin, ghrelin and insulin hormones have been observed in gastrointestinal system diseases such as abomasal displacement cases, omasum constipation and dilatation of secum, which are common diseases in dairy cattle in early lactation. Hypotonia or atony of the abomasal muscles in association with digestive system diseases has been suggested as a prerequisite for abomasal displacement. Especially the effects of insulin on motility are seen in abomasal smooth muscles. Impaired motility and abomasal gas accumulation are important symptoms observed in cases of abomasal displacement with complex interactions between neuromuscular and hormonal pathways. It has been demonstrated that digestion slows down as a result of mechanical pressure and ischemic necrosis, hormonal mechanisms change due to microflora change and the gastrointestinal system is affected by this change.

**Key words:** Cattle, Stomach diseases, Leptin, Ghrelin, Insulin

**THE RELATIONSHIP BETWEEN COMPANY TARGETS AND MANIPULATION:  
A STUDY ON BIST COMPANIES**

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**Abstract**

Every company sets some specific targets that it wants to achieve in the future. Achieving these targets is very valuable for companies. Because a company that achieves its targets enhances its credibility with investors and creditors. In this sense, companies determine social benefit targets (non-financial) and financial targets. Internal and external financial information users assume that the financial reports provided by companies are reliable. Therefore, companies must present financial reports accurately to information users to determine whether they have met their targets. In these reports, the company's resorting to any form of accounting manipulation indicates that something was not going well at that time. Still, this situation changed in a way that could affect the decisions of the information users.

This study conducted research on 142 companies traded in the industrial sector in Borsa Istanbul. Out of the 142 companies examined, 30 were found to be likely to engage in manipulation, while the remaining 112 were not. According to the results of the analysis, it has been determined that there is no relationship between company targets and the possibility of manipulation.

**Keywords:** Company Targets, Manipulation, BIST Companies.

## ARTIFICIAL INTELLIGENCE APPLICATIONS IN TOTAL EFFICIENT MAINTENANCE

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### ABSTRACT

**Introduction and Purpose:** Artificial intelligence (AI) has emerged as a powerful tool in various industries, revolutionizing processes and driving efficiency improvements. In the field of maintenance, AI has shown great potential in optimizing Total Efficient Maintenance (TEM). This paper aims to explore the applications of AI in TEM, including predictive maintenance, proactive maintenance, and preventive maintenance strategies.

The part of study scope in this article is the application of artificial intelligence in Heating, Ventilation and Air Conditioning (HVAC) systems design, including predictive modeling, optimization algorithms, and front-end control strategy.

**Materials and Methods:** To achieve our research objectives, we conducted a comprehensive review of existing literature on AI applications in TEM. Various research articles, case studies, and industry reports were analyzed to identify common themes and trends related to the implementation of AI techniques for optimizing maintenance practices.

The collected data includes information on the types of AI technologies used, the specific maintenance processes improved, and the resulting impacts on OEE and downtime reduction.

**Results:** The findings of this study reveal that AI can significantly enhance the efficiency of maintenance operations in TEM. Real-time monitoring capabilities provided by AI systems enable organizations to detect anomalies and deviations from normal operating conditions. This allows for timely intervention and proactive maintenance actions to prevent equipment failures.

The integration of big data analytics tools with AI platforms enables organizations to gather vast amounts of historical data from various sources such as equipment sensors, maintenance records, and operational process parameters. By applying advanced analytics techniques on this data, organizations gain valuable insights into the root causes of failures and can develop targeted interventions for preventing future occurrences.

**Key Words:** Artificial intelligence; TEM (Total efficient maintenance); Predictive maintenance; Proactive maintenance; Preventive maintenance; Overall equipment effectiveness; Downtime reduction, Heating, Ventilation and Air Conditioning (HVAC).

## **DYNAMICS OF MICROBIAL POPULATION IN AIR, WATER AND SOIL**

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### **Abstract**

The growth of microbial populations in nature is dynamic, as the cellular physiology and environment of these populations change. Population dynamics have wide-ranging consequences for ecology and evolution, determining how species interact and which mutations fix. Understanding these dynamics is also critical for clinical and environmental applications in which we need to promote or inhibit microbial growth. Soil microbial communities are subjected to significant changes over time. The most rapid changes caused by temperature and soil moisture alternations or the by the flow of fresh organic matter occur during the several hours or days. They are mostly related to the soil microbial activity. Seasonal dynamics are caused by annual variations in temperature and precipitation that affect the microbial community directly or indirectly through the regulation of plant life. The long-term dynamics of microbial communities during primary or secondary successions lead to an increase in the total microbial biomass and the fungi/bacteria ratio, as well as to changes in the taxonomic composition of microbial communities. The main factors of the long-term dynamics are the accumulation of soil organic matter, plant successions, and changes in pH. The diversity of microbial communities during long-term dynamics can vary in different ways and does not follow a single trend. The longest dynamics of soil microbial communities are associated with changes in bioclimatic conditions. Information about soil microbial communities of the past can be obtained by studying buried and permafrost soils. The study of future changes in soil microbial communities is possible in experiments with artificial changes in climatic parameters. Plants are a significant factor in the dynamics of soil microbial communities on all timescales; in short-term periods, the major role is played by the activity of plants; in the long-term trends, the changes in the vegetation abundance and diversity are the most important factors. Microbial communities are essential components of aquatic ecosystems through their contribution to food web dynamics and biogeochemical process. In this Research, we summarize our current understanding of aquatic, terrestrial and air microbial community dynamics at various scales, from hours to decades.

**Keyword:** Microbial, Dynamics, Population, Communities



## **LEVERAGING BLOCKCHAIN FOR TRUST ENHANCEMENT IN SUPPLY CHAIN SOCIAL NETWORKS**

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University of Pannonia Spring 2024

### **Abstract:**

In the era of globalization, supply chains are intricate networks involving numerous stakeholders, each with their own set of interests and incentives. Establishing and maintaining trust among these actors is paramount for the smooth functioning of supply chain operations. However, traditional trust mechanisms are often limited in their effectiveness and transparency. This paper proposes the utilization of blockchain technology as a solution to enhance trust within supply chain social networks. Blockchain's decentralized nature, cryptographic security, and immutable ledger offer a novel approach to fostering transparency and accountability among participants. Through a comprehensive review of relevant literature and case studies, this paper explores the potential applications and benefits of integrating blockchain technology to strengthen trust within supply chain social networks. Furthermore, it discusses the challenges and considerations associated with implementing blockchain solutions in real-world supply chain environments, offering insights for future research and practical implementation strategies.

**Key words:** Blockchain technology – Social network – Trust – Supply chain.

## MEASUREMENT OF MEDICATION ADHERENCE AMONG TYPE II DIABETES PATIENTS ATTENDING PRIMARY HEALTHCARE FACILITIES IN MOROCCO

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### Abstract

**Background:** The aim of this study was to assess medication adherence among Moroccan patients with type 2 diabetes.

**Methods:** To achieve this objective, a quantitative cross-sectional study was conducted among patients with type 2 diabetes in Morocco. The General Medication Adherence Scale (GMAS) was used to measure medication adherence in this target population. The study received ethical approval from the Moroccan Association for Research and Ethics.

**Results:** A total of 284 patients were included in the study. Among them, 90.30% of type 2 diabetes patients demonstrated high adherence to their medication treatment, while 5.30% were considered to have moderate adherence and only 4.40% showed partial adherence. However, when the cumulative evaluation of medication adherence towards antidiabetic drugs was conducted, the results confirmed an adherence rate of approximately 95.78%.

**Conclusions:** The study's findings revealed a high level of medication adherence among type 2 diabetes patients. To sustain these encouraging results, it will be crucial to maintain and value the efforts made by healthcare professionals involved in the care of these patients.

### Keywords

Medication adherence; type 2 diabetes; oral antidiabetic drugs; Morocco.

## THE USE OF 3D DESIGN PROGRAMS AND 3D PRINTERS IN EDUCATION

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### ABSTRACT

The rapid evolution of technology makes possible the integration of innovative tools in the education sector. Along with technological advances, 3D Design Programs have had a profound impact on disciplines such as engineering, architecture, industrial design and art. After the 1980s, design processes gained momentum and became more diverse with the use of Computer Aided Design (CAD) programs in these fields. In the 1990s, these programs became more user-oriented and found new uses such as animation, game design and product design. With the continuous development of technology, CAD programs have evolved from two-dimensional drawings to three-dimensional models and then to advanced technologies such as virtual reality, augmented reality and artificial intelligence. Today, many CAD programs such as Solidworks, CATIA, Unigraphics, Inventor, Fusion, Rhino, 3Ds Max, AutoCAD, etc. have become the basic tools of related disciplines. This is because designers can design their projects in three dimensions through CAD programs, observe and test products in a virtual environment, make engineering calculations, and correct deficiencies or errors in the model in an economical and efficient way before proceeding to product manufacturing. In education, the use of CAD programs and 3D printers increases students' engagement in lessons, makes them concrete, and improves their problem solving, creative and critical thinking skills. These technologies facilitate the understanding of complex models and support the learning process by using these models as course materials. The demands of our age and the future necessitate the training of individuals who have a good command of technology, are competent, have problem-solving skills, can develop innovative ideas and put them into practice, and are active producers rather than passive consumers. Computer Aided Design (CAD) Programs and 3D printers play an important role in meeting these basic requirements.

**Keywords:** Computer Aided Design, 3D Printer, Education

## **AZERBAIJAN'S TRANSITION STRATEGY TO THE GREEN ECONOMY**

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### **Summary**

The most important thing that makes the country attractive for the world community is its international image. International organizations based on this context take into account the country's capabilities and resources, as well as its position on a global scale, when conducting their events. Until now, a large number of events of international organizations on political, economic and humanitarian issues have been held in Azerbaijan. International sports competitions, forums, conferences and competitions on various topics can also be attributed to them. Taking these into account, we can confidently say that Azerbaijan is a unique place where international events are held. Our republic, which has become the most prestigious address of numerous events, has deservedly hosted all of them. This year, Azerbaijan will host the largest international event - the 29th session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP29).

**Keywords:** global scale, international organization, conferences, climate changes, resource.

## USE OF AQUAPONIC TECHNIQUES IN FRUIT FARMING

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### ABSTRACT

The desire to meet the animal protein needs of the rapidly growing world population has led to the increase in the number of facilities and densely stocked production in aquaculture. On the other hand, in addition to the physiological negativities that high temperatures cause in plants, it also causes constriction in water resources by triggering evaporation, which raises concerns. In this context, the situation of our country in terms of usable water resources is quite critical. These developments, which occurred in parallel in two cases, evolved over time into the integration of plant and animal production. Aquaponic farming can be explained as a sustainable agricultural system in which fish farming and hydroponic plant growing are integrated. In the basic functioning of this system, the waste produced by fish is converted into a form useful to plants through bacteria. It is based on the principle of supplementing missing minerals and providing a growing environment for plants following the necessary regulations. As a result of evaluation of different studies together, it has been reported that this system provides over 90% water savings and over 70% energy savings. It is underlined that it is environmentally friendly by providing zero waste water discharge. It is reported that this causes a decrease in the consumption of fertilizers, which we are dependent on. Economical and sustainable plant and animal production is achieved with this system, in which even unfavorable environments can be utilized. It is expected that systems combining this type of plant and animal production models will become increasingly widespread due to the changes in ecological characteristics with global climate change and the increase in people's orientation towards healthy products due to the pandemic and people's awareness.

**Key words:** Aquaponics, hydroponics, fish nutrition, plant nutrition

## UTILIZING UNMANNED AERIAL VEHICLES IN FRUIT CULTIVATION

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### ABSTRACT

Aside from their outstanding biochemical qualities, which make them an extremely valuable food source, fruit cultivation is also essential to the global ecosystem's sustainability. Its cultivation needs to be done cautiously and under close observation because of this. Fruit production requires proper irrigation techniques, prompt disease and pest management, and plant nutrition practices should be applied in line with the needs of the plant. When traditional methods are used during these applications, losses in labor, efficiency and time may occur. In order to obtain high efficiency at low cost, agricultural methods offered by technology should be used. One of these methods is agricultural unmanned aerial vehicles. As a result of studies involving agricultural unmanned aerial vehicles and supported by terrestrial data, general characteristics of plants and soil can be profiled. The general condition of the plant, monitoring irrigation planning, combating diseases and pests, plant nutrition practices and pollination in species that have pollination problems can be done with these tools. Compared to traditional methods, the effect of unmanned aerial vehicles on plants is 60% higher than traditional methods. 40% of pesticide savings can be achieved with agricultural unmanned aerial vehicles. 70% of time and labor can be saved with agricultural unmanned aerial vehicles. 200% of water consumption can be saved with agricultural unmanned aerial vehicles. Since they are unmanned and autonomous, they do not threaten human health. Thanks to the low flight consumption, damage that may occur in the surrounding gardens is prevented by spot application. Due to the extreme climatic events experienced with the current global climate change, unmanned aerial vehicle-supported planning of cultural activities is becoming inevitable day by day.

**Key Words:** Drone, smart agriculture, sensors, remote sensing

## **BENEFITS AND SIGNIFICANCE OF FREEZING IN FRUIT STORAGE**

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### **ABSTRACT**

Fruits have extensive biochemical features that make them an essential part of human nutrition and the daily diet. Their post-harvest life is, however, shortened by their high water content, ongoing respiration, internal ethylene impact, and susceptibility to microbial deterioration. Fruits can be effectively preserved for an extended period of time in this situation by freezing them, which minimizes the loss of quantity and quality. Maturation can be postponed by minimizing metabolic processes, particularly respiration, which convert macromolecules into micromolecules. In addition, freezing fruits minimizes the loss of vitamins, minerals and antioxidant substances they contain, allowing them to be consumed out of season. Growing technology and logistical possibilities have created this scenario, which is crucial for both producers and consumers. With this approach, export potential rises and foreign dependency falls while quantity, quality, and freshness are maintained. Cooling technology, which enables the opening of different employment areas, makes positive contributions to the country's economy in different ways. This study addressed the post-harvest sensitivities of fruits, beginning with a notion of preservation. To mitigate the potential adverse effects of this sensitivity, attempts have been made to transfer the benefits of freezing across certain metabolic cycles. Along with its advantages, there are drawbacks as well, like the requirement for storage space, loss of flavor and odor, and incompatibility with some fruits.

**Key Words:** Polyphenol oxidase, respiration, ethylene, weight loss

## INTEGRATING TECHNOLOGY IN NURSING EDUCATION

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### **ABSTRACT**

Technology integration has revolutionized the teaching and learning experience in nursing education, within the context of modern healthcare education. By using simulation software, virtual reality, mobile apps, and online learning platforms, educators construct dynamic settings that replicate real-world clinical circumstances. These tools promote the development of critical thinking, clinical reasoning, and proficiency in evidence-based practice among students. Implementing technology in nursing education provides a multitude of advantages. It boosts student involvement and enthusiasm by addressing individual learning preferences and breaking down barriers to cultivate a network. Additionally, it empowers educators to experiment with teaching techniques and evaluation tools such as simulation-based learning, creating a space for skill development. Nonetheless, the incorporation of technology in education faces hurdles like resistance from faculty, resource constraints, and the continual need for enhancement. To tackle these obstacles, strategic planning, institutional support, and investment in teacher training are crucial. Looking ahead, the integration of technology is anticipated to influence nursing practices. Nursing education plays a role in equipping students to navigate technology-driven healthcare environments that empower the workforce to deliver top-notch care across settings. This preparedness is vital as the healthcare sector increasingly relies on technology to enhance efficiency, outcomes, and overall care quality. By incorporating technology into nursing education, both teaching and learning experiences are enriched; empowering nurses to address the intricacies of healthcare systems while enhancing patient care excellence. Embracing progress is imperative for nursing to maintain its position as a leader in healthcare delivery and innovation. As technology progresses continually, nursing education must remain flexible and responsive to equip graduates with the skills and abilities needed for success in today's changing healthcare landscape.

**Key Words:** Technology Integration, Nursing Education, Simulation-Based Learning, Digital Learning Platforms, Future of Nursing Practice.



## **THE CONSTRUCTION OF SPACE IN PABLO NERUDA'S MODERN LOVE SONNETS**

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The paper intends to analyze Neruda's „100 Love Sonnets” starting from the premise that, in the volume, space is not a static element, but it is constructed and shaped by the presence of the poet's beloved woman.

First of all, we need to mention that the whole book is placed under the sign of a spatial metaphor. Neruda envisages his sonnets as little houses of wood, meant to shelter Matilde, the muse who has inspired them.

In fact, the muse herself, with her multifaceted love, also represents a home for the wandering poet. It is Matilde who transforms the house in which the couple lives, redefining the place and the objects, and many of the verses describe her as a fairy of the dwelling.

The article will show that the presence of the beloved woman not only constructs a space of domestic happiness, it also recreates the natural universe in which the poet lives, bringing him closer to everything that exists.

## **REDUCTION OF BURN RISKS IN THE USE OF MONOPOLAR ELECTROCAUTERY: SAFETY PROTOCOLS AND PRACTICES FOR OPERATING THEATRES**

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### **ABSTRACT**

Monopolar electrocautery is a method used in situations where tissues need to be cut or coagulated. However, the safe use of this technology and the correct management of the equipment depends on the level of knowledge of the surgical team. Although the use of monopolar electrocautery is widely preferred in surgical procedures, there are burn risks associated with its misuse. Safety protocols should be followed during the use of electrocautery. These protocols include proper ventilation of instruments sterilised with ethylene oxide gas, removal of metal objects from the body before surgery, preventing the patient's body from contacting the metal parts of the operating table, not allowing the solutions used in skin antisepsis to puddle on/under the patient, not activating the active electrode before the solution evaporates from the patient's skin, correct placement of the return electrode, management of active electrodes and ensuring the safety of the devices used during surgery. The correct positioning of the electrode and rotation plate should be carefully considered when using monopolar electrocautery, especially in patients with conductive prosthetic joints. After removal of the active electrode, the patient should be assessed for burns and the electrode should be assessed for malfunction and damage, and the type of active electrode used should be recorded in the operative note. All instruments should be brought to the lowest operating level after use, the electrosurgical power supply should be switched off and a detailed skin assessment of the patient should be made and recorded after the operation. If an electrical burn is observed in the patient despite the precautions taken, the patient and his/her family should be explained and the evidence should be kept. Patient monitoring should be performed continuously during and after the operation, rapid intervention in case of possible electrical burns, and the patient and family should be explained to the patient and family when such a burn occurs. In conclusion, this article aims to improve both patient safety and the quality of surgical outcomes by providing a comprehensive safety protocol to prevent the risk of burns during monopolar electrocautery.

**Keywords:** Bipolar electrocautery, Operating theatre, Safety, Burn

## THE EFFECTS OF ELECTROMAGNETIC FIELD AT 2-2.45 GHZ MICROWAVE FREQUENCY ON ER STRESS IN RAT TESTIS TISSUE

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### ABSTRACT

**Introduction and Purpose:** EMF is a physical field created by the interaction of electric charges and currents and Wifi technology has the ability to emit EMF. When the homeostasis of protein synthesis-folding, one of the functions of the ER, is disrupted, ER stress occurs and causes various pathological conditions. After ER stress occurs, GRP78, which is involved in protein folding, separates from IRE1, PERK, ATF6 and activates these three signaling pathways. In our study, we investigated the effect of EMF on ER stress by determining the changes in the expression levels of GRP78, PERK, IRE1, ATF6 genes in testicular tissues of rats exposed to EMF at 2-2.45 GHz MW frequency.

**Materials and Methods:** 24 albino Wistar rats were used. Group I (n=12) rats were not exposed to EMF, group II (n=12) rats were exposed to 3 V/m 2.45 GHz MW radiation for 1 h/day for 60 days. The mRNAs obtained from homogenized testicular tissues were translated into cDNA and GRP78, PERK, IRE1, ATF6 gene expression levels were measured by qPCR.

**Results:** No statistically significant difference was found in GRP78 (p=0.263), PERK (p=0.236), IRE1 (p=0.240), ATF6 (p=0.203) gene expression levels between group I and II.

**Discussion and Conclusion:** Our findings suggest that EMF at 2-2.45 GHz MW frequency does not cause ER stress in the testicular tissue and ER stress-induced testicular damage and the others pathological conditions such as cancer.

**Key Words:** ER stress, GRP78, PERK, IRE1, ATF6

## THE IMPACT OF INTELLECTUAL CAPITAL ON FIRM PERFORMANCE: A STUDY ON THE BIST BROKERAGE FIRM INDEX

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### ABSTRACT

**Introduction and Purpose:** With the emergence of the knowledge society, businesses have begun to realize the importance of intangible fixed assets, which are fundamentally based on knowledge. The concepts representing intangible fixed assets according to traditional accounting principles have evolved over time. The concept of intellectual capital has become an important and comprehensive concept explaining intangible fixed assets. The increasing importance of intellectual capital day by day has paved the way for businesses to invest in this concept and has led to the emergence of multiple calculation methods to accurately calculate it. Intellectual capital is also an important indicator used in evaluating the performance of companies. This study investigates the impact of intellectual capital on firm performance.

**Materials and Methods:** In this study, data from 8 companies included in the Brokerage Firm Index traded on Borsa Istanbul between 2018 and 2022 were used, and these data were calculated using the method of Value Added Intellectual Coefficient (VAIC) developed by Ante Pulic. The data for the companies were obtained from activity reports submitted to the Public Disclosure Platform. Panel data analysis was conducted with these data.

**Results:** As a result of the analysis, it was determined that all independent variables used in the study had a statistically significant relationship with the dependent variable, which is the asset profitability of the companies.

**Discussion and Conclusion:** The analysis conducted with the data of 8 brokerage firms traded on Borsa Istanbul revealed that investing in intellectual capital positively affects firm performance. Therefore, an important way for companies to increase their performance and thus their market value is through investments in intellectual capital.

**Keywords:** Intellectual Capital, BIST, Firm Value

**MENTALWELLBOT: A COMPREHENSIVE CHATBOT FOR MENTAL HEALTH  
AWARENESS AND PRELIMINARY MEDICAL ASSESSMENT**

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**ABSTRACT**

In this modern world, with increasing responsibility, mental health related issues also increase rapidly. One of the major concerns is depression. It is prevalent among almost all age groups. The importance of mental health cannot be enhanced as it supports our ability to make decisions, form relationships, and shape the world around us. People with these issues may be hesitant to consult a therapist, or face difficulties approaching a counselling. This may lead to hardships later. So, Artificial Intelligence can be used to bridge this gap. This method can revolutionize mental health support, making it more accessible for people who need help. In conclusion, MentalWellBot represents an important advancement in addressing mental health challenges by providing accessible counselling and preliminary symptom analysis. With artificial intelligence, this chatbot has the capacity to transform the way mental health support is delivered, ultimately contributing to improved health in individuals and communities.

**Keywords:** Mental health, crucial, depression, anxiety, counselling, preliminary symptoms, chatbot.

## NANO-DELIVERY SYSTEMS AS A PROMISING THERAPEUTIC POTENTIAL FOR EPILEPSY

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### tract:

Polymeric nanoparticles have gained significant interest in the field of epilepsy due to their potential as drug delivery systems for antiepileptic drugs (AEDs). Enhanced Drug Delivery

**Improved Bioavailability:** Polymeric nanoparticles can encapsulate AEDs, protecting them from degradation and improving their bioavailability. **Targeted Delivery:** They can target specific areas of the brain associated with epileptic activity, reducing systemic side effects.

**Prolonged Drug Release Sustained Release:** Nanoparticles can release the drug over an extended period, maintaining therapeutic levels in the brain. **Reduced Dosage Frequency:**

This can lead to a decrease in the frequency of drug administration, improving patient compliance. **Crossing the Blood-Brain Barrier (BBB) Enhanced BBB Permeability:** Certain nanoparticles can traverse the BBB, delivering AEDs to the brain more effectively. **Non-Invasive Delivery:** Avoids invasive procedures for drug administration directly into the brain.

**Chitosan Nanoparticles:** Natural polymer with mucoadhesive properties, aiding in drug retention. **Examples of AEDs Encapsulated in Polymeric Nanoparticles:** Lamotrigine: Used for focal and generalized seizures.

**Benefits and Potential Impact:** **Reduced Side Effects:** Targeted delivery minimizes systemic exposure, reducing side effects like cognitive impairment. **Improved Efficacy:** Enhanced drug availability in the brain can lead to better seizure control.

**Patient Compliance:** Reduced dosing frequency and non-invasive administration can improve patient adherence to treatment plans. **Research Areas:**

**Preclinical Studies:** Evaluating the efficacy and safety of various AED-loaded nanoparticles in animal models of epilepsy. **Optimization of Formulations:** Fine-tuning nanoparticle characteristics for optimal drug release and brain targeting.

**In Vitro and In Vivo Studies:** Assessing nanoparticle behavior, bioavailability, and therapeutic effects. **Challenges:** **Safety Concerns:** Ensuring biocompatibility and minimal toxicity. **Optimizing Formulations:** Balancing factors like particle size, surface charge, and drug release kinetics.

**Scale-Up:** Moving from lab-scale production to large-scale manufacturing for clinical use. **Promising Results:** Research has shown that AED-loaded polymeric nanoparticles can significantly reduce seizure frequency and severity in animal models.

Improved brain concentrations of AEDs with nanoparticle formulations have been reported, indicating enhanced therapeutic effects. **Conclusion:** Polymeric nanoparticles hold promise as advanced drug delivery systems for AEDs in epilepsy treatment.

Ongoing research aims to optimize formulations, improve brain targeting, and demonstrate clinical efficacy, potentially offering safer and more effective treatment options for individuals living with epilepsy.

**Keywords:** AED-loaded nanoparticles, Targeted Delivery, BBB Permeability, Prolonged Drug Release, Natural polymer.

## NAVIGATING WEB 3.0 HARNESSING AI AND BIG DATA FOR THE FUTURE OF VIRTUAL ENTERTAINMENT

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### **ABSTRACT**

Numerous calculations in artificial intelligence and AI have been created to address the difficulties presented by the always developing volume of virtual entertainment information. The review surveys late chips away at virtual entertainment huge information examination, zeroing in on AI draws near. Pertinent related works are referred to, offering bits of knowledge into the condition of the field. The paper is organized into areas covering the foundation of virtual entertainment, enormous information examination, and AI, scientific categorization of huge information examination via web-based entertainment, late advances in AI calculations for online entertainment investigation, conversation via virtual entertainment large information examination, research difficulties, and end and future headings. By and large, the section gives an extensive outline of the meaning of web-based entertainment huge information examination, featuring its effect across different spaces and examining late progressions and difficulties in the field. Web 3.0 depicts the following development of the Internet, the UI that gives admittance to archives, applications and interactive media on the web. Web 3.0 is as yet being grown, so there is definitely not a generally acknowledged definition. Indeed, even the legitimate spelling isn't made sure about, with expert firms like Forrester, Gartner and IDC flipping among "Web3" and "Web 3.0." What is clear, however, is that Internet 3.0 will put areas of strength for an on decentralized applications and presumably utilize blockchain-based innovations. It will likewise utilize AI and man-made intelligence to enable a canner and more versatile web.

**Keywords:** chips, zeroing, enormous, huge, spaces, depicts, Indeed.

## RFID BASED INVENTORY MANAGEMENT SYSTEM

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### ABSTRACT

**Introduction and Purpose:** The need for innovative tracking systems to monitor inventories is apparent. Traditional methods such as manual recording or barcode scanning can be time-consuming and prone to errors, particularly in environments with large quantities of items. Current solutions often depend on internet access and monitors, limiting usability in diverse settings. This project aims to develop an RFID system integrated with a GSM module for real-time inventory tracking and notification. The system prioritizes simplicity and accessibility, eliminating the need for additional sensors. It focuses on tracking inventory with RFID tags and promptly notifying authorized individuals of stock changes via SMS.

**Materials and Methods:** The project employs several key components, including a microprocessor, RFID reader, RFID tags, GSM module, battery and SIM card. The RC522 RFID reader operates at 13.56MHz with a 5 cm read range. The GSM module allows SMS, calls, operating within a voltage range of 3.4V to 4.4V. Key steps of project include obtaining RFID tags compatible with the reader and integrating them into the items being tracked. The GSM module is then added to system to enable messaging. Arduino connections for the GSM module are set up and code is written to notify users via SMS when a product with an assigned identification number is removed from inventory.

**Results:** RFID technology integrated with GSM communication successfully tracked items carrying RFID tags and monitored real-time changes in product quantities. This system enabled inventory tracking without an internet connection or external screens.

**Discussion and Conclusion:** The project combines RFID technology with GSM communication for efficient inventory tracking. RFID readers monitor products while the GSM module sends SMS notifications to authorized personnel without relying on internet or monitors. This cost-effective system offers a transformative solution for advanced inventory management.

**Key Words:** GSM Module, Inventory Management, RFID Technology



**ANALYSIS OF GHARAR IN THE PRACTICE OF BUYING AND SELLING  
TRANSACTIONS USING THE TEBASAN SYSTEM FOR RICE HARVESTS  
(Study Case Klairan Kaibahan Village Kesesi Subdistrict)**

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**Abstract**

In social life in rural areas there are interesting things in economic practices, especially those related to agriculture, for example the sale of rice harvests. This also happens in the people of Klairan Kaibahan Village, Kesesi District, who are no stranger to the Tebasan system and still uses it. According to several opinions, this Tebasan system has an element of gharar (obscurity) in it, as it is known that gharar is prohibited in sharia. So it is interesting to carry out research regarding the Tebasan system in Klairan Kaibahan Village, Kesesi District, whether it contains elements of gharar in practice. This research uses research whose data sources were obtained from the field by conducting observations and interviews conducted in Klairan Kaibahan Village, Kesesi District, Pekalongan Regency to obtain information regarding the practice of buying and selling rice harvests using the Tebasan system which is interesting to analyze the elements of gharar in it.

**Keywords:** gharar, buying and selling, slashing

Analysis of gharar in the practice of buying and selling transactions using the slash system for rice harvests

## NEUROPROTECTIVE AGENTS, NATURAL PLANT HERBS & DRUGS IN ISCHEMIC STROKE: A REVIEW

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### **ABSTRACT:**

Stroke is a destructive experience which can result in permanent disability in brain. There is no permanent drug which can improve the blood flow at infarcted area and also improve the neurological deficit. Due to the lack of treatments available for stroke, many researchers will investigate the suitable plants or drugs for the treatment of this disease. Numerous medicinal plants and herbal drugs are available to treat stroke, some of the plants are Ginkgo biloba, Fructus Chebulae, Pomegranate, Rosa laevigata, Garlic, Leonurus heterophyllus, Olive, Grape, Allium cepa, drugs such as Pravastatin, SenkyunolideI, Phloretin, Mgso<sub>4</sub>, HAMI 3379, Oleoylethanolamie, scopolamine and mecamylamine, Nitric Oxide, N-nitro-L-arginine methyl ester Heptamethoxy flavones, Rosiglitazone, Puerarin, the activity was estimated by parameters like superoxide dismutase (SOD) activity, Hemispheric swelling index (cerebral edema), H<sub>2</sub>O<sub>2</sub> induced cell injury, OGD-R induced cell injury, superoxide dismutase and glutathione peroxidises, mitochondrial membrane potential, Western blotting assay, ROS scavenging assays, Superoxide anion scavenging assay, Hydroxyl radical scavenging assay, H<sub>2</sub>O<sub>2</sub> scavenging assay, Singlet oxygen scavenging assay, Peroxyl radical scavenging assay, Peroxynitrite anion scavenging assay, myeloperoxidase (MPO) activity, blood–brain barrier integrity, cerebral infarct size, in Situ Senkyunolide etermination of choline acetyltransferase activity (ChAT), Cell viability, Oxygen glucose deprivation/reperfusion assay, Flow cytometry, Immunohistochemistry. The present review focused on different medicinal plants and drugs that have been tested in Stroke in animal models

**KEYWORDS:** Fructus Chebulae, acetylcholinesterase, Leonurus heterophyllus, Oleoylethanolamie, mecamylamine.

## EXAMINATION OF FACTORS AFFECTING MUSICAL PERCEPTION SKILLS IN INDIVIDUALS WITH COCHLEAR IMPLANTS A PRELIMINARY STUDY

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### ABSTRACT

**Introduction and Purpose:** Cochlear Implants are used to restore hearing in individuals with severe and profound hearing loss. Cochlear implants enhance many auditory perception processes of auditory stimuli such as speech sounds, environmental sounds and music, which are crucial for hearing. The efficacy of a Cochlear implant is dependent upon numerous things. This study examined the musical perception abilities of individuals with Cochlear implants and investigated the relationship between various demographic variables, including age and the duration of hearing aids usage, age of cochlear implantation and the duration of usage, cause of hearing loss and age at diagnosis.

**Materials and Methods:** In the study conducted with 15 volunteers between the ages of 9 and 18, their audiologic history and demographic information were collected and a musical perception test was applied to the volunteers. The test was carried out with a computer-based system and the volunteers cochlear implants The relationship between the data was examined with Pearson and Spearman correlation tests.

**Results:** A moderate positive relationship was detected between the musical perception test and age, duration of hearing aid usage and duration of cochlear implant usage. A moderate negative correlation was observed between the musical perception test and the age of diagnosis for hearing loss and the age of first hearing aids usage A weak positive relationship was found between the musical perception test and the age of cochlear implantation.

**Discussion and Conclusion:** This study has shown that there is a relationship between increasing the duration of hearing aid or cochlear implant usagee and increasing musical perception skills. It has been determined that there is a relationship between early diagnosis and instrumentation and musical perception skills. As a result, early diagnosis, early instrumentation, and increased use of hearing aids may have an impact on musical perception.

**Key Words:** Cochlear Implant: Musical Perception

## A STUDY ON THE SOLUTIONS OF THE Q-INITIAL VALUE PROBLEM WITH FIXED POINT THEORY

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### ABSTRACT

**Introduction and Purpose:** Multi-point boundary value and initial value problems for ordinary differential or difference equations have applications in a variety of different areas of applied mathematics and physics. For instance the vibrations of a guy wire of a uniform cross-section and composed of  $N$  parts of different densities can be created as a multi-point boundary value problem. Also many problems in the theory of elastic stability can be handled as multi-point problems. On the other hand,  $q$ -calculus, known as unlimited calculus, has many applications in disciplines such as mathematics and physics. The aim of the present paper is to prove some existence and uniqueness results for the  $q$ -initial value problem with  $q$ -initial conditions.

**Materials and Methods:** Our results are based on Banach's contraction mapping principle, Krasnoselskii's fixed point theorem and Schaefer fixed point theorem. It is a classical method. Since the problem has the  $q$ -derivative and  $q$ -integral, the existence results of such problem are also new.

**Results:** We have investigated the existence and uniqueness of solutions of the  $q$ -initial value problem by using some fixed point theorems. Also, we have presented some numerical examples to illustrate the basic results.

**Key Words:** Initial Value Problems; Difference Equation;  $Q$ -Calculus; Fixed Point Theory; Multi-point Boundary Value Problems

## ENVIRONMENTAL DETERMINATES OF GUT MICROBIOTA DIVERSITY: A CROSS CULTURAL STUDY

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### **Abstract:**

Microbial heterogeneity inside human gut that offers a number of unequivocal facets is primarily superintended by environmental factors like dietary patterns, lifestyle choices and the extent of interaction with nature. Being the inhabitants of remote areas, the tribal people of India prefer to consume specific traditional diets that chiefly incorporates raw and fibre rich food while minimises the consumption of processed foods. This unique dietary preference renders them to develop a remarkably diverse gut microbiota community that is predominantly composed of *Prevotella* species, which are mainly efficient at fermenting plant derived polysaccharides, reflecting their reliance on natural resources for sustenance. This diet-environment-microbiota association not only contributes to the tribes' enhanced immunity but also to their metabolic resilience. In stark contrast, the typical Western diet, characterized by an overconsumption of processed foods and a deficiency in dietary fibre, is associated with a gut microbiota skewed towards *Bacteroides* species. The Western lifestyle, with its frequent use of antibiotics, preference for caesarean deliveries, and high rates of formula-feeding, has been linked to a reduction in microbiota diversity in the gut. This shift is implicated in the increasing prevalence of chronic inflammatory conditions, such as obesity, diabetes, and allergies, within these populations. The comparison of these distinct microbiota profiles underscores the profound influence of environmental factors on the gut's microbial ecosystem. The findings advocate for the integration of environmental considerations into public health strategies to nurture gut microbiota diversity and prevent related diseases. This study reaffirms the value of maintaining traditional dietary habits and preserving natural environments to support a healthy and diverse gut microbiota.

**Keywords:** Microbial heterogeneity, Gut microbiota, tribal, *Prevotella*, *Bacteroides*

## **PROS AND CONS OF MANGROVE CO-MANAGEMENT IN THE MEKONG DELTA OF VIETNAM**

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### **ABSTRACT**

Conceptually, co-management is a participatory negotiation that seeks to incorporate resource users in decision making process as well as to increase accountability and sharing of responsibility. This approach has proven to be an important tool for good governance in natural resource management including mangrove. Mangrove co-management has been introduced in the Mekong Delta of Vietnam and considered as a great potential for sustainable management of mangrove and livelihood support. However, it is still facing many challenges. This paper will present pros and cons of mangrove co-management in the Mekong Delta – a largest mangrove area of Vietnam to draw lessons learned for better application of this concept in other places.

**Keywords:** co-management, mangrove, Mekong Delta, Vietnam

## NUMERICAL STUDY OF PHYSIOLOGICAL BLOOD FLOW WITH STRETCHING CAPILLARY ON MHD MICROPOLAR FLUID

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**Abstract:** Numerical analysis of mixed convection flow of MHD micropolar fluid with stretching capillary in the presence of thermal radiation, chemical reaction and viscous dissipation has been studied. The governing non linear partial differential equations of momentum, angular velocity, energy and concentration are converted into ordinary differential equations using similarity transformations which can be solved numerically. The dimensionless governing equations are solved using ode45. The effect of physical parameters such as micropolar parameter, Hartmann number, microinertial density parameter, thermal radiation parameter, Eckert number, Schmidt number and chemical reaction parameter on flow variables i.e., velocity of micropolar fluid, microrotation, temperature and concentration has been discussed graphically. MATLAB code is used to analyze numerical facts. Furthermore, computational values of local skin friction coefficient, local wall coupled coefficient, local Nusselt number and local Sherwood number for different values of parameters have been investigated.

**Keywords:** thermal radiation, chemical reaction, viscous dissipation, micropolar fluid, similarity transformation.

## **OCCURENCE OF RAILLIETINA TETRAGONA IN FARM BREEDING PHEASANTS IN BELGRADE AREA**

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### **ABSTRACT**

Pheasants represent the most common type of feathered game distributed throughout the world. In the area of the Balkan Peninsula, the most widespread pheasant subspecies is certainly Phasianus colchicus from the subgroups colchicus, torquatus and mongolicus. In order to increase the number of pheasants in hunting grounds, artificial breeding began and became the basis of pheasant management in hunting grounds around the world. In the wider area of Belgrade, there are also several pheasant farms that have been breeding this game for decades. Parasitoses caused by helminthes produce remarkable health problems in artificially raised pheasants. The study of helminthes infection on artificially raised pheasants in pheasanterias in spread Belgrade area was carried in period 2015-2018. During our examination we have examined samples of faces and died pheasants. Infection with Raillietina teragona we established at 11.23% of examined birds. Infection was the most prevalent at pheasants up to 14 weeks old than in adult pheasants. Raillietina tetragona is the largest among avian tapeworms, measuring up to 30 cm in length and 1–1.5 cm in breadth. It is whitish in colour, highly elongated, dorso-ventrally flattened, and entirely covered with a tegument. The tapeworm completes its life cycle in two different hosts, the definitive host being birds, and the intermediate hosts are ant, particularly the species of Tetramorium, and housefly of the species Pheidole and Musca, in which the cysticerdoids develop. Light and medium infections remain usually without clinical signs, although weight gains and egg-laying performance can be lower than expected. As a general rule, young birds are more likely to suffer from such infections. R.tetragona can cause the appearance of quite large nodules in the gut, but fatalities are uncommon. Heavy chronic infections may cause diarrhea, anemia, weight loss, and intestinal inflammation and hemorrhage which we spoiradically occured.

**Key words:** Pheasants, Phasianus colchicus, Raillietina teragona



## **OJK: FINANCIAL SERVICES REMAIN RESILIENT AND CONTRIBUTE TO SUPPORTING GROWTH**

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### **Abstract**

OJK assesses that current conditions in the global economy and financial markets are quite conducive, generally better than expectations. However, global geopolitical developments still need to be watched closely as tensions in the Middle East and Ukraine increase. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that the Capital Market in the context of law enforcement in the Capital Market sector in March 2024 will be subject to the OJK. Furthermore, during 2024, OJK has imposed administrative sanctions for examination of cases in the Capital Market on 45 parties, consisting of administrative sanctions in the form of fines of IDR. 17,275,000,000, 13 Written Orders, 1 individual license suspension, and 1 individual license revocation. For this reason, banks are asked to increase their resilience by strengthening capital and maintaining adequate CKPN coverage, as well as routinely conducting stress tests to measure capital's ability to absorb potential risks.

**Keyword:** OJK, Capital Markets, Banking Sector Development

## REVIEW OF THE STUDIES CONDUCTED RELATED TO THE ZERO WASTE PROJECT

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### ABSTRACT

In this research, it is aimed to examine the studies carried out in the period from the beginning of the zero waste project in Turkey until today. For this purpose, document analysis technique was used in the research. Unpublished postgraduate theses and articles related to the zero waste project were used as documents. For this reason, criterion sampling, one of the purposeful sampling types, was preferred in selecting the sample of the research. In this context, postgraduate theses and articles accessed in Turkey between 2017 and 2024 in Google Scholar, Ulakbim, DergiPark, YÖK-National Thesis Centre databases with the keywords waste, zero waste, zero waste project, science course and zero waste project in science course. was preferred. 22 articles and 15 unpublished graduate theses that meet these criteria constitute the sample of the research. The data of the research were collected by document analysis and analysed by descriptive analysis. From the analysis of the collected data, it was determined that the most work on the zero waste project was done in 2022 and the number of articles was more than the number of theses. In terms of subject area, it was determined that the most studies were on the implementation of the zero waste project in residential areas. In terms of sampling type, it has been determined that there are more studies on the implementation of the zero waste project in residential areas than other studies. Additionally, it was determined that the most preferred sampling number was 90 and above. It was determined that in the analysed studies, the qualitative research method was mostly preferred, data was collected with the survey technique and the data was mostly analysed with content analysis. It has been determined that researchers mostly use the Cronbach Alpha reliability coefficient to ensure the validity and reliability of their studies, and that it contributes to increasing awareness about the zero waste project in most studies. In addition, researchers can say that the effective and active waste collection process should be disseminated and that the science course contributes to zero waste awareness and consciousness. For this reason, it is recommended to increase zero waste activities in the science curriculum and textbooks and raise individuals' awareness. As a result, the necessary importance should be given to ensure that the zero waste project is among the indispensable parts of our lives, is adopted by all individuals, and becomes a lifestyle.

**Key Words:** zero wast, zero wast project, science, zero waste in science

## OPTIMIZATION OF PHARMACEUTICAL FORMULATION USING BOX BEHNKEN DESIGN

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### **Abstract:**

Box-Behnken design is a statistical experimental design technique used to optimize pharmaceutical formulations or processes by systematically varying multiple factors while minimizing the number of experiments. It is a response surface methodology that helps in finding the optimal combination of variables with fewer experimental runs. Here's how you can optimize a pharmaceutical formulation using Box-Behnken design: **Define the**

**Objectives:** Clearly define the objectives of your optimization, such as improving the stability, bioavailability, or release profile of the pharmaceutical formulation. **Select the**

**Variables:** Identify the critical factors or variables that can affect the formulation, such as the concentration of active pharmaceutical ingredients, excipients, pH, temperature, and mixing time.

**Determine the Range of Variables:** Specify the lower and upper limits for each variable. These limits should encompass the expected practical range for each factor. **Choose the**

**Number of Levels:** The Box-Behnken design typically uses three levels (-1, 0, +1) for each variable. You can also use more levels for factors with non-linear effects. **Create the Design Matrix:** Use software or statistical tools to generate a Box-Behnken design matrix. The matrix will specify the combinations of factors (variables) to be tested. The design matrix should ensure that all possible interactions are explored. **Conduct Experiments:** Prepare and test the pharmaceutical formulations according to the combinations specified in the design matrix. Record the responses (e.g., drug release, particle size, dissolution rate) for each experiment.

**Analyze the Data:** Perform regression analysis to build response surface models that relate the responses to the variables. You can use software like Design-Expert, JMP, or R for this purpose.

**Optimization:** Use the response surface models to find the optimal formulation by identifying the combination of variables that maximizes or minimizes the desired response while staying within practical constraints.

**Perform Confirmatory Runs:** Validate the predicted optimal formulation by conducting a few additional experiments. This will ensure that the predicted optimum is reliable.

**Evaluate the Robustness:** Perform sensitivity analysis to assess the robustness of the optimized formulation to small variations in factors. You can use techniques like Monte Carlo simulations to assess this.

**Document the Results:** Properly document the results, including the optimized formulation, the response surface models, and any recommendations for manufacturing.

**Scale-Up:** If the formulation is intended for commercial production, carry out scale-up studies to ensure that the optimized formulation can be manufactured consistently at a larger scale.

**Regulatory Considerations:** If the pharmaceutical product is regulated, ensure that you meet all regulatory requirements and document the optimization process for submission to regulatory authorities. Remember that Box-Behnken design is a powerful tool for optimization, but it should be used in conjunction with a good understanding of the underlying science and chemistry involved in pharmaceutical formulation. Proper documentation, compliance with regulations, and rigorous validation are essential in the pharmaceutical industry.

**Keywords:** statistical experimental design, powerful tool, particle size, Variables,

## **OPTIMIZING COORDINATION STRATEGIES FOR COMBATING ILLEGAL FINANCIAL ACTIVITIES: A FOCUS ON SPECIAL TASK FORCES**

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### **Abstract**

The Task Force for Eradicating Illegal Financial Activities (Satgas PASTI) held a coordination meeting to strengthen the synergy in implementing the eradication of illegal investments, illegal online loans and various other illegal financial activities in order to further protect the public. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. At the Task Force coordination meeting, strategic issues were discussed which included: Blocking accounts, opening bank secrets, arresting and detaining fraudulent individuals, Tracing and confiscating assets of fraudulent individuals and banning them as an effort to recover losses to society, Strengthening coordination in efforts to monitor and prevent licensing of illegal entities , and Massive and effective socialization and education strategies for the community. It can be concluded that the existence of the SURE Task Force is confirmed in the Financial Sector Development and Strengthening Law (P2SK) which mandates that the OJK together with related authorities, ministries and institutions form a task force to handle business activities without permits in the financial sector.

**keywords:** Task Force, eradication, finance, illegal

## **ENERGY DIPLOMACY IN THE SOUTH CAUCASUS: POST-SECOND KARABAKH WAR DYNAMICS AND U.S. ROLE**

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### **ABSTRACT**

In the article, we notice the profound impact of the aftermath of the Second Karabakh War on the energy landscape of the South Caucasus. This region, historically significant for its strategic location and abundant energy resources, has undergone substantial changes, reshaping energy dynamics and geopolitical alliances. The conflict between Armenia and Azerbaijan over Nagorno-Karabakh has not only resulted in territorial rearrangements and human suffering but has also sparked far-reaching implications for energy cooperation and security. With the South Caucasus serving as a critical transit route for Caspian energy resources destined for European markets, its strategic importance in global energy geopolitics cannot be understated. Amidst these developments, the United States has emerged as a key player, actively engaging in promoting energy security, diversification, and stability in the region. Recognizing the strategic significance of the South Caucasus, particularly in reducing Europe's dependence on Russian energy supplies, the U.S. has intensified efforts to strengthen bilateral energy cooperation with Azerbaijan. Initiatives such as the Southern Gas Corridor (SGC) underscore mutual interests in advancing energy diversification and transit route security, aligning with broader U.S. foreign policy objectives. However, challenges persist, including Azerbaijan's increasing domestic gas needs and the imperative to balance growing exports with internal demand. Recent geopolitical developments, such as the Russian-Ukrainian war and energy crises in the Balkans, underscore the strategic urgency of energy cooperation in the South Caucasus. Azerbaijan's strategic agreements with Balkan countries aim to bolster energy exports and establish additional supply routes, further fortifying regional energy security.

**Key words:** South Caucasus, Azerbaijan, USA, Southern Gas Corridor.

## **THE GIG ECONOMY AND THE FUTURE OF WORK: AN ANALYSIS OF TRANSFORMATIVE LABOR LANDSCAPES**

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### **ABSTRACT**

Known for its adaptable and on-demand work arrangements the gig economy has profoundly transformed the conventional working environment, indicating a crucial transition towards a more flexible and decentralized labor market. This study provides a comprehensive examination of the gig economy's impact on the trajectory of employment, delving into its dual nature of fostering economic adaptability and posing labor instability and social disparities as associated difficulties. This study utilizes an extensive examination of empirical research and primary data collected via surveys and interviews with gig workers to explore the intricate dynamics of gig employment. The present research expands upon the socio-economic ramifications of the gig economy, analyzing its effects on labor markets, organizational structures, and regulatory frameworks. Also, it proposes a reconfiguration of labor laws, benefits systems, and social security measures to accommodate the unique characteristics of gig work, addressing the pressing need for innovative policy solutions that reconcile the flexibility of gig work with the stability and security offered by traditional employment. The report suggests that work future in the gig economy hinges on finding a balance between flexibility and job security. Creating a labor market that embraces advancements and economic growth in the economy while safeguarding the dignity, rights and welfare of all workers requires collaboration among policymakers, businesses and employees. This input presents a perspective on discussions about the economy offering an unbiased analysis of its benefits and challenges while proposing a framework for adapting to changes in employment within a more digitalized society.

**Key Words:** Gig Economy Dynamics, Labor Market Flexibility, Employment Protections, Future Workforce Strategies

## THE EVOLUTION OF CONSUMER BEHAVIOR IN THE DIGITAL AGE

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### ABSTRACT

Significant transformations in consumer behavior have been brought by the digital era, resulting in notable changes to the commercial environment and posing challenges to conventional company structures. This study explores the complex transformation of consumer behavior driven by technical progress, digital platforms, and the growing use of the Internet. This study examines meticulously existing literature and empirical evidence to investigate the many aspects of consumer interactions within the digital environment. It focuses on elucidating shifts in buying behaviors, information consumption patterns, and the social factors influencing consumer decision-making. E-commerce proliferation, social media and mobile technologies has significantly broadened the availability of products and services, leading to a paradigm shift in consumer-brand interactions and purchase behavior. This study is organized into three primary domains: the influence of online reviews and social proof, the transition towards customized and on-demand consumption, and the emergence of ethical and value-driven purchase choices. This study utilizes a mixed-method methodology, integrating quantitative data analysis and qualitative case studies, to ascertain behavioral patterns that indicate a shift from passive consumption to a more active and involved manifestation of consumerism. Modern consumers prioritize convenience and value while being more aware of privacy, sustainability and the ethical consequences of their decisions. According to this study, companies must comprehend the dynamic nature of customer preferences to maintain competitiveness in the digital era. The text provides strategic suggestions for using digital resources to promote significant interaction, improve customer experiences, and establish enduring brand loyalty. The results of this study provide a valuable contribution to the broader scholarly conversation around digital transformation, providing valuable insights into the intricate interplay between technology and consumer behavior. This study highlights the need to use adaptive tactics to effectively navigate the intricacies of the digital marketplace and meet the changing demands of contemporary consumers.

**Key Words:** Digital Consumerism, E-commerce Trends, Personalization in Marketing, Ethical Consumer Practices



## OVERVIEW OF NANOPARTICLES FOR THE TREATMENT OF EPILEPSY

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### ABSTRACT:

Nanoparticles are increasingly being explored as a promising avenue for the treatment of epilepsy due to their unique properties, which enable targeted drug delivery, enhanced bioavailability, and controlled release of therapeutics. Here's an overview of how nanoparticles are being utilized in the treatment of epilepsy: **Targeted Drug Delivery:** One of the main advantages of nanoparticles is their ability to target specific cells or regions within the body. In epilepsy, this targeted delivery is particularly beneficial for delivering antiepileptic drugs (AEDs) directly to the brain, thereby minimizing systemic side effects and improving drug efficacy. **Blood-Brain Barrier (BBB) Penetration:** The BBB restricts the entry of many drugs into the brain, presenting a significant challenge for epilepsy treatment. Nanoparticles can be engineered to bypass or traverse the BBB, allowing AEDs to reach their target sites in the brain more effectively. **Enhanced Bioavailability:** Nanoparticles can encapsulate drugs, protecting them from degradation and increasing their stability in biological environments. This encapsulation also enhances the bioavailability of AEDs, ensuring a higher concentration of the drug reaches the brain. **Sustained Release:** Controlled release formulations of AEDs can be achieved using nanoparticles, enabling sustained drug release over an extended period. This prolonged release profile can improve patient compliance and reduce the frequency of drug administration. **Reduced Side Effects:** By delivering AEDs directly to the brain and minimizing systemic exposure, nanoparticle-based drug delivery systems have the potential to reduce the occurrence of systemic side effects associated with conventional epilepsy treatments. **Multifunctional Nanoparticles:** Some nanoparticle platforms can be engineered to possess multifunctional properties, such as imaging capabilities or the ability to respond to specific stimuli within the body. These multifunctional nanoparticles can not only deliver drugs but also provide real-time monitoring of disease progression or therapeutic response. **Types of Nanoparticles:** Various types of nanoparticles have been investigated for epilepsy treatment, including liposomes, polymeric nanoparticles, dendrimers, and inorganic nanoparticles like gold and silica nanoparticles. Each type offers unique advantages in terms of drug loading capacity, stability, and biocompatibility. **Challenges and Future Directions:** Despite the promising potential of nanoparticle-based therapies for epilepsy, several challenges remain, including scalability, manufacturing complexity, long-term safety, and regulatory approval. Future research efforts are focused on addressing these challenges and optimizing nanoparticle formulations for clinical translation. In conclusion, nanoparticles hold great promise for revolutionizing epilepsy treatment by overcoming the limitations of conventional therapies and offering targeted efficient, and minimally invasive drug delivery strategies. Continued research and development in this field are essential for realizing the full therapeutic potential of nanoparticle-based approaches in epilepsy management.

**KEYWORDS:** Blood-brain barrier, Controlled release formulations, Epilepsy, AEDs, Targeted Drug Delivery

## INVESTIGATION OF GREEN HYDROGEN PRODUCTION AND USE BY SWOT ANALYSIS

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### ABSTRACT

Green Hydrogen, produced using renewable energy resources, contributes to a sustainable energy future. The produced hydrogen is called Green Hydrogen because it uses Renewable Energy Sources. Electricity is produced by using renewable energy sources such as solar energy, wind energy, geothermal energy. When the electricity produced based on the installed power of the solar energy system is used as a material and method and examined in terms of Green Hydrogen production, the next step of this production will be the electrolysis process. As a result of electrolysis, it allows the separation of water into hydrogen and oxygen, which is the output of electrical splitting. When examining the issue of adding Green Hydrogen to natural gas at a certain rate, it has advantages and disadvantages in terms of its use. Considering the advantages and disadvantages together, the fact that production costs are currently high and storage and transportation technologies should be adequate should be taken into account. It is necessary to make the pipelines suitable for transportation and to take into account storage systems and costs. However, there are also opportunities it offers in terms of being produced from clean energy sources and being an environmentally friendly solution. With the advancement of technology and industry, it may be expected that the costs of Green Hydrogen will decrease and its availability will become more widespread.

Green Hydrogen has the potential to be an alternative energy source with its advantages such as contributing to sustainability, reducing carbon emissions, ensuring energy efficiency, and reducing dependence on fossil fuels as a result of being added to natural gas and used. In this research, the studies were examined theoretically. From the production methods of Hydrogen to be mixed with natural gas to its use, it is evaluated from a SWOT perspective and research findings are presented.

**Key Words:** Energy efficiency, Green Hydrogen, Sustainability

## EXAMINING THE EFFECT OF MATHEMATICAL REASONING SKILLS ON PROBLEM SOLVING SKILLS IN ELEMANTY 4TH GRADE STUDENTS'

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### ABSTRACT

**Introduction and Purpose:** The aim of this study was to examine the effects of reasoning skills of 4th grade primary school students on problem solving skills.

**Materials and Methods:** The study was designed using the relational survey model. The sample of the study consisted of a total of 373 primary school 4th grade students studying in 3 public schools in Bursa province by cluster sampling method. In the study, reasoning skills were measured using the primary school reasoning skills scale developed by the researchers. The reasoning skills scale consists of 5 factors: making predictions, discovering patterns, making use of mathematical relationships, making inferences, and making verifications. Item analysis, exploratory and confirmatory factor analysis were conducted as part of the validity studies of the reasoning skills scale.

**Results:** The reliability coefficient of the reasoning skills scale was calculated as .84. Problem solving skills consisted of 10 verbal problems developed by Ulu (2017) that require strategy use in their solution. The research data were analyzed using multiple linear regression analysis. The results showed that reasoning skills explained 39% of the variance in problem solving skills. The reasoning skills that contributed to the variance in problem solving were predicting, discovering patterns, and making inferences, while the factors of utilizing mathematical relationships and verification were not statistically significant predictors of problem solving skills.

**Discussion and Conclusion:** It is expected that the findings of this study will contribute to the field and contribute to teachers taking the necessary measures to improve students' achievement and to carry out studies to increase the use of mathematical reasoning skills to a higher level. In addition, the developed mathematical reasoning skills test is important in terms of being a resource that teachers can use and contributing to the literature.

**Key words:** primary school, reasoning, problem solving

## CHILD ABUSE ON THE INTERNET AND MENTAL RESULTS

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### ABSTRACT

Today, rapidly developing information and communication technologies, especially the Internet, have become an unchangeable part of our lives. Both adults and children use the internet as a means of communication, access to information, entertainment, etc. Although the Internet provides benefits in many areas of human life, it also brings many risks due to its unconscious and excessive use. Especially children, who constitute the majority of internet users and have not yet completed their development, are more exposed to these risks. These risks can be handled under four headings: child abuse, cyberbullying, communicating with strangers and harmful internet games. With the development of information technologies, especially the internet, the internet has started to be used as a tool in child abuse. Child abuse on the internet appears in the form of peer abuse, sexual abuse and child pornography. It is known that all negative experiences in childhood affect mental health. Children who are abused in the internet environment can show many mental consequences such as depression, post traumatic stress disorder, self-harm, anxiety, decreased self-esteem, etc. just like children who are abused in real life. Increasing use of internet by children brings along some risks such as child abuse and this causes some behavioural and psychological problems in children. Nurses and other health professionals should be aware that the internet is a risk factor for child abuse and that abuse on the internet may negatively affect children's mental health, conduct research and take preventive-treatment measures. In this review, child abuse on the internet, which is one of the types of violence against children and causes children to be negatively affected biopsychosocially, its types and its psychological consequences on children are mentioned.

**Key Words:** Child, child abuse, nurse, internet

## THE EFFECT OF EMOTION REGULATION-ORIENTED CREATIVE WRITING ACTIVITIES IN ADOLESCENTS WITH SPECIFIC LEARNING DISORDER: CASE STUDY

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### ABSTRACT

**Introduction and Objective:** Considering the nature of specific learning disorder and the physiologically immature emotion regulation mechanisms of adolescents, it is important to support adolescents' emotion regulation and coping skills, and creative writing activities can be an effective way to support these skills. Therefore, the aim of this study was to examine the effect of emotion regulation-oriented creative writing activities on the emotion regulation skills of adolescents with specific learning disorder.

**Materials and Method:** In this study, which was designed as a case study from qualitative methods, a total of 10 sessions of creative writing activities aiming to improve emotion regulation skills will be implemented with an adolescent with specific learning disorder who has been identified as having problems in emotion regulation. After the sessions are completed, a semi-structured interview form created by the researchers will be applied to determine the adolescent's thoughts about the process, emotional awareness level and its effect on emotion regulation skills, and the data will be evaluated through content analysis.

**Findings:** Qualitative data will be evaluated through content analysis. It is aimed to complete the data analysis in four steps: (1) data will be coded, (2) themes will be identified, (3) codes and themes will be organized, and (4) findings will be interpreted.

**Discussion and Conclusion:** It is known that individuals with learning difficulties often encounter emotionally challenging processes throughout their lives and have difficulty coping with these processes. Writing can enable self-expression and exploring emotions that are difficult or even impossible to express. Writing helps the writer to cognitively organize, accept, understand, and make sense of their experiences and to gain increased awareness. In the light of this information, it is thought that emotion regulation-oriented creative writing activities to be implemented in this study will be an effective way to support emotion regulation skills of adolescents with specific learning disorder.

**Keywords:** Creative writing, emotional development, specific learning disorder.

## **ARDUINO AND ARTIFICIAL INTELLIGENCE BASED HUMAN AND OBJECT TRACKING ROBOT**

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### **ABSTRACT**

Human tracking robots are an important part of today's technology and provide significant benefits in various fields. They are widely used, especially in military, medical, environmental and security fields. They are often powered by artificial intelligence technology; Artificial intelligence enables robots to perceive their environment, track objects, and act appropriately in various situations. Human tracking robots can be useful in a wide variety of fields. For example, in military applications, these robots can be used for reconnaissance, surveillance, and even to improve the safety of humans on battlefields. In the medical field, they have the potential to be used in sensitive tasks such as patient care and surgery. In the environmental and agricultural fields, they can be used to optimize agricultural activities and perform environmental monitoring. In addition, human tracking robots are of great importance in disaster and search and rescue operations; These robots can provide support to search and rescue teams without entering dangerous areas. They can also be used in the field of personal security to protect people from dangerous situations. The prototype of the Arduino software-based and artificial intelligence-supported human-following robot developed in our study is equipped with environmental perception and object recognition capabilities. This robot can detect and track people or designated objects by scanning its environment through various sensors. Sensor data is processed with artificial intelligence algorithms to detect and track objects in the environment. In conclusion, AI-supported human tracking robots represent a versatile technology that can provide benefits in various fields by representing the combined power of technology. This technology carries great potential to improve humanity's quality of life and make working in risky or harsh conditions safer.

**Key Words:** Artificial intelligence; Arduino; Human Tracking Robot; Arduino Software; Sensors

## THE EFFECT OF ACTIVITIES BASED ON PROJECT-BASED LEARNING APPROACH ON THE MATHEMATICS LEARNING PROCESS OF SECONDARY SCHOOL STUDENTS

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### ABSTRACT

**Introduction and Purpose:** Project-based learning approach is a teaching method that encourages the active participation of students and focuses on solving problems encountered in daily life. When the impact of project-based activities on the mathematics learning process is examined, especially for students at the secondary school level, the importance of project-based activities emerges. These activities provide students with the opportunity to connect abstract mathematical concepts to concrete contexts, thus relating mathematics to daily life. The study aimed to determine the effects of project-based activities in mathematics teaching, to enrich students' learning experiences and to raise awareness of mathematics competitions.

**Materials and Methods:** The study was prepared in partnership with schools from Turkey (8), Spain (3), Italy (2), Republic of Moldova (1), Slovakia (1), Portugal (1), and Romania (1) within the scope of the international eTwinning project called "Math Masters". Among the quantitative research methods, a single-group pre-test post-test quasi-experimental design was preferred. The current study, which is based on the project-based learning approach, included 187 students between the ages of 11 and 15 from 17 schools and secondary schools from 7 countries. Following the purpose of the study, the convenience sampling method, one of the non-probability-based sampling methods, was used. The study consists of project activities and student-centered activities created in collaboration with individual and mixed-country teams.

**Results:** As a result of the study, it was seen that the project-based learning method made significant contributions to the mathematics learning process. It has been determined that the project-based learning approach supports students' understanding and problem-solving skills by concretizing mathematical concepts.

**Discussion and Conclusion:** Enriching mathematics lessons with educational games has enabled students to learn mathematical concepts in a more fun and effective way. Interactive mathematics applications have provided students with customized learning experiences and facilitated the visualization of mathematical concepts. This study has limitations, and it is important to consider these limitations when considering the results. It takes a specific group of students or a specific educational environment as a sample. Therefore, the generalizability of the results may be limited. Therefore, in future studies, it may be recommended to conduct studies at different grade levels and using various teaching techniques.

**Key Words:** Project Based Learning; Maths; eTwinning Project

## SUSTAINABILITY OF URBAN MEMORY THROUGH DIGITAL TECHNOLOGIES

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### **ABSTRACT**

**Introduction and Purpose:** Since the day people started living together, the culture that society has created as a result of common sharing has been a major factor in the survival of society. Culture is effective in making sense of and shaping both oneself and the environment. For this reason, preserving cultural values and transferring them to the future is very important in creating social awareness. Cities where societies come to life provide the opportunity for people to share in common. In this context, the city and its memory are an indispensable part of the cultural values of the society. However, over time, due to reasons such as natural disasters and urbanization policies, physical structures that have an important place in the city memory cannot continue to exist. It is possible to transfer the tangible and intangible cultural values of the city and the society living in the city to the future through digital technologies. Sustainability of urban memory will create urban awareness by affecting the sense of belonging to the city. Therefore, the sustainability of urban memory and heritage is very important for society.

**Materials and Methods:** Thanks to the rapidly developing technology in recent years, the city's data is stored in the digital environment and its sustainability is ensured. Cultural values of the city transferred to the digital environment have heritage value in transferring cultural values to future generations. Digital city archives are a prominent formation in this context. Archiving concrete and intangible data of the city through digital technologies and transferring them to the digital city archive is a qualified method.

**Results:** It is possible to transfer city data to the future through digital technologies. In this way, access to city values becomes faster and easier. This study reveals the importance of urban memory for society and reveals the digital studies and their importance in the sustainability of urban memory. As a result, methods and suggestions for establishing a digital city archive are mentioned. (This study was produced from the doctoral thesis.)

**Key Words:** Urban, urban memory, urban culture, digital methods and digital urban archive



## THE INFLUENCE OF ADAPTABILITY ON ARCHITECTURE AND FACADES

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### ABSTRACT

**Introduction and Purpose:** Despite being considered an innovative approach in architectural literature, the concept of adaptability has deep historical roots. In this study, the emergence and historical development of the adaptability concept, as seen in various application examples throughout different periods of architectural history, have been examined to understand the evolutionary background of the concept. One of the most prominent impacts of adaptability in architecture has been on facade design and function. The aim is to understand the evolutionary history of adaptive facades and the main factors influencing this development with the goal of increasing user comfort and addressing the global energy consumption issue.

**Methodology:** In this study, a literature review method is used to understand the evolution of adaptability in architecture and facade design and to assess the current status of adaptive facades. The literature review process was conducted through various academic databases, architectural journals, and books. This method allowed for an in-depth examination of existing knowledge on the subject and establishing the theoretical framework of the research.

**Findings:** The study examined historical approaches to the concept of adaptability in architecture and showcased historical application examples. Furthermore, the development of adaptive facades, which play a crucial role in enhancing user comfort and reducing energy consumption in buildings, was analyzed in detail in parallel with societal, environmental, and technological factors driving this development. **Discussion and Conclusion:** By examining the evolution and characteristics of the adaptability concept in the field of architecture, this study evaluates how this concept fits within the existing practical and theoretical architectural framework. Technological advancements, research in this field, and the increasing prevalence of architectural practices based on the adaptability concept show promise for the conservation of environmental and economic resources.

**Keywords:** Adaptive Architecture, Adaptive Facade, History of Adaptive Architecture, History of Adaptive Facade

## DIMENSIONAL CONTROL IN SHEET METAL FORMING USING MACHINE LEARNING

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### ABSTRACT

**Introduction and Purpose:** This study presents machine learning methods for a data-driven approach to dimension control in sheet metal forming processes. Dimension control is crucial for ensuring the accuracy and quality of products in sheet metal forming. Traditional methods typically rely on manual measurements and adjustments, making the process both time-consuming and costly. This work proposes a machine learning-based method that utilizes process data and dimensional measurements to predict and control dimensional variations.

**Materials and Methods:** The study utilized data obtained from photographs taken with cameras. These data were analyzed using various machine learning algorithms, including linear regression, logistic regression, Naïve Bayes, support vector machines, decision trees, K-nearest neighbor, random forests, and gradient boosting. After model training, these models were used to map the relationships between process parameters, material properties, and dimensional variations.

**Results:** Experiments demonstrated that machine learning models provide higher accuracy and efficiency in dimension control compared to traditional methods. Predicted dimensional variations closely matched actual measurements, reinforcing the reliability of the machine learning approach. Additionally, the models can be used effectively to optimize process parameters and reduce dimensional variations.

**Discussion and Conclusion:** The proposed machine learning approach offers an effective and reliable solution for dimension control in sheet metal forming processes. Monitoring and predicting real-time dimensional variations can enhance product quality and production efficiency. Machine learning models provide data-driven insights necessary for process improvements, helping engineers make informed decisions. This approach could set new standards in the sheet metal forming industry.

**Key Words:** Dimensional control, sheet metal forming, machine learning, real-time, monitoring, product quality, production efficiency

## MANUFACTURING OF EPOXY/CNT AND EXPERIMENTAL INVESTIGATION OF THEIR COMPRESSIVE STRENGTH

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### Abstract

In this study, the compressive strengths of three different parameterized specimens were experimentally investigated. These specimens are undoped, 0.5 wt% carbon nanotube (CNT) doped and 0.5 wt% graphene doped specimens. Epoxy resin was used in the study. Particles were added to the resin after mixing the hardener at a ratio of 3:1. These particles were mechanically homogenized using a mixer for 5 minutes. Then this mixture was poured into cylindrical molds with a diameter of  $27 \pm 0.1$  mm and a height of  $27 \pm 0.1$  mm and left to cure at room temperature for 3 days. After 3 days, the compression surfaces of the specimens removed from the molds were leveled with CNC and a flat surface was formed. In the continuation of the study, the specimens were tested with a mechanical tensile compression tester at a compression speed of 1 mm/min. As a result of the experiments, it was observed that the compression strength of the graphene-doped specimen was up to 2.5 times higher than the undoped specimen and the CNT-doped specimen exhibited relatively similar compression behaviors to the undoped specimen.

**Keywords:** Nanocomposite, epoxy, CNT, graphene, compression experiments.

## THE ROLE OF PELVIC FLOOR MUSCLE TRAINING IN PELVIC ORGAN PROLAPSE SURGERY: A REVIEW OF RECENT RANDOMIZED CONTROLLED TRIALS

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### ABSTRACT

**Introduction and Purpose:** The physical therapy practices, including pelvic floor muscle training (PFMT), are frequently used in pelvic organ prolapse (POP) and have been observed to improve POP symptoms. However, there is limited information regarding the effectiveness of these interventions when used in conjunction with POP surgery. This review aims to assess the effectiveness of PFMT when used in conjunction with POP surgery, focusing on recent randomized controlled trials (RCTs) conducted within the last five years.

**Material and Methods:** Studies investigating the effect of PFMT in conjunction with POP surgery were searched in PubMed, Web of Science, Pedro, and Google Scholar databases. RCTs between March 2019 and March 2024 were included in this review.

**Results:** Six RCTs meeting the inclusion criteria were reviewed. These studies included 1071 women. The intervention groups received PFMT both before and after surgery. POP symptoms were mostly assessed using the PFDI-20 and its subscales POPDI-6, CRADI-8, and UDI-6. In addition, SF-36, PFIQ-7 and PISQ-12 were used to assess quality of life and other impacts of POP symptoms. Methods such as the Brink scale, transperineal ultrasound, vaginal manometry and surface electromyography (EMG) were used to evaluate pelvic floor muscle strength and contractions. Upon reviewing the studies, no significant difference was found between the intervention groups and control groups in terms of POP symptoms, quality of life and degree of prolapse.

**Discussion and Conclusion:** There is insufficient evidence to support the addition of physical therapy practices, including PFMT, perioperatively to surgery. Adequately, powered RCTs with longer intervention and follow-up periods are required to evaluate the long-term effect of perioperative PFMT.

**Key Words:** Physical Therapy; Pelvic Floor Muscle Training; Pelvic Organ Prolapse; Gynecological Surgery

## INVESTIGATION OF CHILD REPRESENTATIONS IN NEWSPAPERS AFTER KAHRAMANMARAŞ EARTHQUAKE

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### ABSTRACT

**Introduction and Purpose:** Earthquakes deeply affect children as well as all individuals in society. Especially after the earthquake, children may be at risk in news programs that tell about what happened. It can be stated that, in addition to all kinds of news involving children being the subject of child abuse and neglect, the emotions intended to be created in society in this direction can also lead to a kind of emotional abuse. Under these thoughts, the research aimed to examine the representations of children in newspaper news after the earthquake whose epicenter was Kahramanmaraş on February 6, 2023.

**Materials and Methods:** Document analysis technique, one of the qualitative research methods, was used in the research. In this context, five newspapers with a daily circulation of between 140,000 and over 300,000 were examined between February 6, 2023 and March 1, 2023. It was determined how children were included in the newspaper news, whether the children's identity information was included and whether there was a direct connection with the news. In the research, newspaper news were examined according to the content analysis form created by the researchers.

**Results:** As a result of the research, it was found that the news was mostly on the second, third and fourth pages (n=124), children's photographs were used openly (n=170), identity information was given (n=100), children's photographs were used in connection with the news (n=120) and was presented as a direct headline for the news (n=129).

**Discussion and Conclusion:** Based on the findings obtained, it can be recommended that due care should be taken regarding children's photographs and identity information in newspaper reports in order to protect children and ensure social awareness.

**Key Words:** Earthquake; Newspaper news; Children; Social awareness

## **A SOLUTION PROPOSAL FOR THE IDLE STATE OF HUMAN CAPITAL NEET: FLEXIBLE WORKING**

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### **ABSTRACT**

**Introduction and Purpose:** Human capital is one of the most important factors of production in the global world order from past to present. Especially in the last decades, there has been a discontinuity in the effective use of human capital. One of the sources of discontinuity is the idleness of young people who are not employed and not in employment (NEET). The aim of the research is to make inferences based on the literature on the effective use of the NEET factor, to ensure the sustainability of the labor market with the orientation towards flexible working styles suitable for the character of Generation Z and even the Alpha generation.

**Materials and Methods:** The methodology of the research proceeds systematically based on a literature review. A systematic literature review method was adopted through document analysis. Research on the subject is evaluated from Web of Science, Scopus, DergiPark and Google Scholar databases.

**Results:** According to the findings of the research, based on the literature, it is confirmed that the NEET factor reveals a great potential for creating a large idle labor force in human capital for sustainable economic development. Again, based on the literature review, it is revealed that the new generation can be integrated into the labor market by considering their personality traits. Moreover, flexible working style is compatible with the characteristics of the new generation and can be a means of creating surplus value in the sustainable labor market.

**Discussion and Conclusion:** Based on the results of the research, it will be possible to understand the academic judgments on the subject and play a guiding role in future studies. In the research, it is accepted that the NEET factor is an important idle labor force and a problem that needs to be solved. To reach a solution, the suitability of flexible working models has been discussed, considering the typical characteristics of the new generation. Finally, it has been revealed that it is quite suitable for the new generation and the subject should be deepened with future studies.

**Keywords:** Not in Education, Employment, or Training; NEET; Generation Z; Generation Alpha; Flexible Working

## PURPOSE OF SHARIA PROVISIONS IN ISLAMIC LAW

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### ABSTRACT

Religion is a divine law sent by God. Religion includes people's obligations. The owner of the religion has created various laws and rules depending on the situation of the people.

In many verses of the Holy Quran, it is stated that there is an order and purpose in the universe. It is stated in dozens of verses that no being was created in vain and that each was created for a purpose. Again, it is frequently stated in the verses that humans, who were created as noble creatures, were not created in vain, but were created for a specific purpose. In this article, we examined the purposes of the provisions of Islamic law. In this article, we examined the purposes of the provisions of Islamic law.

In the dictionary, the word makâsid means setting a goal, heading towards that goal, etc. It is used in different meanings. It appears as the plural form of the word "maksad" in Arabic. In Turkish, it means "purposes, purposes".

Şeria is mentioned in the dictionary as "the place where water comes from, the source". As a religious term, it refers to the provisions and laws imposed by God. Therefore, makâsidü'ş-şeria means the purposes of the divine laws and rules established by Allah as religion. Ibn Ashur was the first to use this concept. The first independent study on this subject was made by Shatibi.

The main purposes of Islamic legislation are generally divided into three classes: Zaruriyat, hajiyat and tahsiniyat.

The source of Islamic law is divine. In Islamic law, there are punishments of hadd, retaliation and ta'zir. These crimes are divided into both God's rights and people's rights. These are crimes that require hadd punishment: adultery, qazf, theft, sodomy, drinking khamr, bagy, apostasy. In return for the crime of intentional murder, retaliation or compensation is imposed. Ta'zir crimes are determined by the public authority.

According to scholars, the purpose of sharia is to protect the mind, religion, life, property and progeny as five basic issues. Those who do not know these purposes well should not make ijti had. The person who will make ijti had must also know the wisdom, purpose and secret of the laws and rules established by Sharia.

The purpose of punishment in Islamic law is to protect public order by preventing the commission and spread of crime, and to discipline and reform the criminal. When we look at these purposes, the main purpose of the provisions of Islamic law is to take the necessary precautions to prevent crimes from being committed. In fact, the aim is to create good people and a good society.

**Keywords:** islam, law, purpose, sharia, muslim

## THE IMPORTANCE OF MONEY FOUNDATIONS IN MEETING FINANCIAL NEEDS

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### ABSTRACT

Foundations are non-profit institutions in Islamic societies in which the rich waive the right to use some or all of their wealth to meet the needs of those in need on the basis of voluntary social solidarity in order to meet the needs of those in need and make this use available to those in need. Foundations played a very important role in shaping the social structure of the Ottoman Empire and in the fulfilment of public services. In addition to meeting the public works, health, education, finance, religious and cultural needs of the Ottoman society with its effectiveness in the Ottoman economic system, we encounter the remarkable responsibilities of foundations in the fight against poverty. In this context, "money (nukud) foundations" were one of the types of foundations established by the endowment of money by the person who owned money to solve the financial problems of those in need. The cash was endowed and then given to those in need in return for certain profit rates. The revenues generated were utilised in accordance with the terms of the foundation charter through the trustee of the foundation in accordance with the conditions of the foundation. However, after the establishment of the money foundations, especially the financing policies applied brought along the discussions on their compliance with Islamic law.

The Ottoman Empire, which had difficulty in keeping up with the rapid economic changes in the world after the Industrial Revolution, could not escape the financial and consequently financial difficulties. The significant role of foundations in the Ottoman economic system became even more prominent in the nineteenth century, and money foundations, which constituted one of the types of foundations, came to the forefront as a financing tool for those who faced financial difficulties in the face of the difficulties of the period. In the nineteenth century, there was an increase in the establishment of money foundations in many cities and towns in Istanbul and Anatolia. In addition to contributing to the revival of economic life in the places where money foundations were established, they also helped the social and cultural development of the society.

In this study, the reasons for the establishment of money foundations and their legal basis will be questioned by using first-hand sources. The profit rates applied in money foundations, which are controversial at the point of compliance with Islamic law, will be discussed and comparisons will be made with the financial systems and interest rates applied in European states of the period. In addition, the historical development processes and application systems of money foundations will be examined as a model for alternative financial applications in terms of financial sustainability.

**Keywords:** Ottoman, foundation, money foundation, financial sustainability



## SOME FIXED POINT RESULTS FOR GENERALIZED NONEXPANSIVE MAPPINGS IN HYPERBOLIC METRIC SPACES

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### ABSTRACT

**Introduction and Purpose:** Fixed point theory can solve problems in domains such as engineering, economics, chemistry, and game theory by providing valuable equation-solving tools. However, finding analytical solutions has proven to be nearly hard in many circumstances, despite the fact that researchers have given it a great deal of attention. In light of this, approximate answers have been found through the use of iterative algorithms. Therefore, this study aims to explore the new faster iterative algorithm in hyperbolic metric spaces introduced by Kohlenbach.

**Materials and Methods:** In this study, we have modified the new faster iterative algorithm into the hyperbolic metric space and derived some convergence results for the very general class of generalized nonexpansive mappings using this modified iterative algorithm. Moreover, we have provided a numerical example of generalized nonexpansive mappings and utilized MATLAB online software to obtain the table and the graph in the proposed example. Finally, we have demonstrated an application to the Fredholm integral equation on time scales.

**Results:** We have compared the convergence rates of the new faster iterative algorithm with some known iterative algorithms for the generalized nonexpansive mapping and found that this algorithm converged faster than the others.

**Discussion and Conclusion:** Using the new faster iterative algorithm, we obtain some strong and  $\Delta$ -convergence results for generalized nonexpansive mappings in hyperbolic metric spaces. Additionally, we provide a numerical example of generalized nonexpansive mappings and compare the convergence rates of this iterative algorithm with other iterative algorithms. Moreover, we present an application to the Fredholm integral equation on time scales to support our theoretical results.

**Key Words:** Hyperbolic metric space, fixed point, generalized nonexpansive mapping, iterative algorithm, time scale, integral equation

## **DIFFERENCES OF USE WITH SUPERCAPACITORS AND BATTERIES IN ELECTRIC VEHICLES**

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### **ABSTRACT**

Energy is mostly obtained from fossil fuels and the damage to nature is increasing day by day. The use of electric vehicles is increasing day by day in order to reduce the size of the damage to nature and to develop new technologies. Especially with the Paris Climate Agreement, which is based on the ban on the sale of internal combustion engines starting from 2035, the increase in the importance and use of electric vehicles has gained great momentum. It is very important to use the energy efficiently for the battery systems of electric vehicles. In this regard, the concept of distance emerges. Considering that batteries are used as the power system in electric vehicles, as the range that the vehicle can cover with the current charge rate at the current time increases, the charging time and repetition required by the vehicle will decrease, and the distance handicap of electric vehicles in this direction will decrease when compared to internal combustion engine vehicles. The commonly used charging systems for this are Lithium-Ion batteries. Despite their low cost and high performance, the production of Lithium Ion batteries unfortunately are not as environmentally friendly as the use of electric vehicles. Also has a high carbon footprint in terms of logistics. In this study, the possibilities of being an alternative power unit in electric vehicles are examined by considering supercapacitors. Supercapacitors are energy storage systems with almost endless cycle life and high power density. Supercapacitors, which stand out with their fast charge-discharge properties and environmental friendliness, are used in regenerative braking systems of electric vehicles. However, studies are continuing to replace batteries as power units. Because batteries are systems with high energy density and are much lower cost compared to supercapacitors, supercapacitors are not yet an alternative for batteries.

**Keywords:** Supercapacitor, battery, electric vehicle, storage

## **GENDER, MARRIAGE, AND INDEPENDENCE: 'JANE EYRE' IN THE CONTEXT OF SECOND-WAVE FEMINISM**

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### **ABSTRACT**

Charlotte Brontë's novel *Jane Eyre* made a profound impact on Victorian society upon its publication, challenging prevailing gender norms and offering a critical perspective on women's place in society. This essay explores how Brontë's depiction of marriage and social expectations in *Jane Eyre* reflects second-wave feminism, advocating for women's liberation from conventional gender roles. Drawing on a blend of literary analysis and historical context, this study examines Brontë's portrayal of marriage and social expectations in *Jane Eyre* through the lens of second-wave feminism. By analyzing the novel's themes and characters, as well as its reception in Victorian society, this research aims to illuminate the novel's role in challenging traditional gender norms and promoting feminist ideals. During the Victorian era, societal expectations for women were rigid, with women largely subservient to men's opinions and limited in their opportunities for social advancement. Brontë used *Jane Eyre* as a platform to critique these limitations, particularly within the institution of marriage. Despite being published in 1847, over a century before the second wave of feminism, *Jane Eyre* addresses many issues central to the movement, including women's independence and self-realization. Fundamentally a Bildungsroman, *Jane Eyre* follows the protagonist's journey from repression to empowerment, highlighting themes of self-discovery and resilience. By examining Brontë's portrayal of marriage and gender expectations, this essay seeks to demonstrate the novel's enduring relevance and its contribution to feminist discourse.

**Key Words:** Gender; Feminism; *Jane Eyre*; Femininity; Patriarchy.

## SEXUALITY AND VIOLENCE: TOXIC MASCULINITY AS A FORM OF HEGEMONY IN RAYMOND CARVER'S SHORT STORIES

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### ABSTRACT

This study examines the presence of toxic masculinity in the short tales of American author Raymond Carver, utilizing the framework of hegemonic masculinity as proposed by R.W. Connell. The study of masculinity has garnered significant attention from experts, leading to a wide range of opinions on the subject, including biology, psychology, and politics. Nevertheless, in the early investigations of masculinity, it has consistently been regarded as a singular entity that symbolizes authority and control, serving as a manifestation of a patriarchal social structure. The subversion of this paradigm did not occur until 1995, when R. W. Connell published one of her seminal works titled *Masculinities*. In this book, Connell aims to emphasize the variety of masculinity, as suggested by the plural form of masculinity in the title. Connell advances her categorization of four primary forms of masculinity, namely masculinity of hegemony, masculinity of subordination, masculinity of complicity, and masculinity of marginalization. In the analysis of Carver's male protagonists, I will focus on hegemonic masculinity in which toxic masculinity is depicted through several means, such as a tendency towards aggression, sexism, misogyny, and the objectification of women. Carver's male characters often exhibit toxic masculinity when they still harbor longing for hegemonic masculinity. This is seen through their objectification, devaluation, or hostility towards women. Hence, individuals who become entangled in the allure of dominant masculinity experience both its constraints and subjugation. Carver portrays certain individuals who harbor a sense of longing for dominant forms of masculinity, even in the face of its absence. When men experience a challenge to their self-esteem, they tend to display toxic masculinity. Within this context, this study examines the presence of toxic masculinity within Carver's narratives. Based on a meticulous examination of the short stories "They're Not Your Husband" and "A Serious Talk," it can be inferred that the male protagonists frequently manifest toxic masculinity as they endeavor to reclaim their dominant form of masculinity.

**Key Words:** Sexuality; Violence; Toxic; Hegemonia; Masculity.

## PRODUCTION OF AUXETIC STRUCTURES WITH SLA AND INVESTIGATION OF THE EFFECT OF CURING TIMES

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### ABSTRACT

**Introduction and Purpose:** SLA (Stereolithography) is a 3D printing technology that is most frequently used in additive manufacturing and works by hardening the resin with light. The effect on mechanical properties will be analyzed by applying different curing times.

**Materials and Methods:** It is created with a chemical content that will cure and harden at different wavelengths. Liquid resin raw material and cellular auxetic structures will be used in the study. The designs to be used are missing rib, re-entrant and chiral.

**Results:** Tensile and compression tests were performed with the Shimadzu device. During the test, the Vertical Chiral sample cured for 5 minutes broke. Compression test was performed with the same device. Images were taken at the 2nd minute of the start of the test. The surface roughness of 24 samples, 9 compression and 15 tensile samples, were measured and recorded with the Mitutoyo brand surface roughness test device.

**Discussion and Conclusion:** When the surface roughness of the compressed samples was compared, it was obtained that the roughest surface belonged to the reentrant structure cured for 3 minutes. The force values of the samples when they show maximum elongation vary. When the amount of Force/Elongation is compared, it was observed that the Missingrip structure had the highest compressive stress value for the samples cured for 3 minutes, the Chiral structure for the samples cured for 5 minutes, and the Chiral structure for the samples cured for 7 minutes. In the compression test, the fastest breaking auxetic design is the 3-minute cured reentrant sample. When the samples were compared among themselves for the tensile test, it was seen that the Horizontal Reentrant structure for the samples cured for 3 minutes, the Vertical Reentrant structure for the samples cured for 5 minutes, and the Missingrip structure for the samples cured for 7 minutes showed the highest tensile strain stress.

**Key Words:** Stereolithography, auxetic structure, characterization.

## IMPROVEMENT OF SHIELDING PROPERTIES OF MILITARY VEHICLE CAMOUFLAGES AGAINST ELECTROMAGNETIC WAVES PRODUCED BY WARP KNITTING TECHNIQUE

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### ABSTRACT

**Introduction and Purpose:** With the rapid development of technology in recent years, electrical and electronic devices have gained an important place in our lives. Electromagnetic waves and electromagnetic pollution that occur with the use of these devices are an important problem. Shielding the electromagnetic waves is important for health and safety. In our study, a fast and easy-to-use fabric was designed and these fabrics can prevent radar imaging electrical and electronic devices used for military purposes.

**Materials and Methods:** Comez brand raschel knitting machine was used to produce mesh structure fabric that shields electromagnetic waves. Core yarns containing copper wire were used so that the fabric could shield electromagnetic waves. In order to add the specified core yarns into the fabric structure, designs were created with different knitting densities using the appropriate knitting structure. Then, the fabric samples were performed to measurements according to the ASTM D4935 test standard between frequencies of 15 MHz and 3000 MHz.

**Results:** According to the test results performed on the network analyzer device, it was determined that the sample fabrics showed electromantic shielding effectiveness (EMSE) of approximately 10 dB at the specified measurement frequencies. This shows that the designed fabrics shield electromnetic waves to a certain extent. It has also been determined that fabrics with more conductive content get higher EMSE values.

**Discussion and Conclusion:** In this study, fabric in a mesh structure was produced using warp knitting technique at different frequencies in appropriate knitting structures, using core yarns containing copper wire. It is seen that the fabric samples have an EMSE value of around 10 dB on average. Although these results are important, it is understood that higher performance results can be obtained by using different knitting structures and different amounts of conductive content for future studies.

**Key Words:** Electromagnetic shielding, Electromagnetic waves, Warp knitted fabrics, Technical textiles

## COMPRATIVE EVALUATION OF LITHIUM BATTERY ALTERNATIVES FOR ENERGY STORAGE SYSTEMS USING THE ANALYTIC HIERARCHY METHOD

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### ABSTRACT

**Introduction and Purpose:** Energy Storage Systems (ESS) are critically important for the efficient utilization of renewable energy sources. Lithium batteries, offered with various chemical compositions, are a significant component that directly influences the performance of ESS. The objective of this study is to compare various lithium battery technologies, including LFP, NMC, LTO, NCA, and LCO, using the Analytic Hierarchy Process (AHP) to determine the most suitable one for ESS. **Materials and Methods:** in this analysis, six primary criteria were considered: ease of packaging, energy density, power density, cycle life, safety, and cost benefits of purchase. Weights for each criterion were assigned following consultations with experts. The AHP method was then employed to evaluate the performance of each battery alternative against these criteria and to calculate a selection score. **Results:** According to the results, LFP batteries displayed the highest performance with a selection score of 1.902, making it the preferred technology for ESS. LTO batteries followed with a score of 1.474, while other alternatives were ranked as NCO, NMC, and NCA respectively. These outcomes demonstrate the potential suitability of each battery technology for applications within ESS. **Discussion and Conclusion:** LFP batteries have been determined to be the most suitable battery technology for ESS, scoring highly on critical criteria such as safety and cycle life. While other technologies like LTO and LCO may offer advantages in specific situations and applications, a comprehensive guide has been provided to decision-makers and industry professionals for ESS battery selection. The AHP method facilitates a robust decision-making mechanism, considering technical, economic, and safety requirements.

**Key Words:** Energy Storage Systems, Lithium Batteries, Analytic Hierarchy Process, Battery Comparison

## OPINIONS OF SECONDARY SCHOOL STUDENTS ON TECHNOLOGY- ENHANCED MUSIC EDUCATION

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### ABSTRACT

This study was conducted to examine the views of secondary school students towards traditional music education as well as technology supported music education (Garageband application).

The research is a descriptive field research. The study group consists of 21 students attending 11th grade in Ümraniye Nazmi Arıkan Private Science High School.

In the research, data were collected by using the interview form created by the researcher. The interview form is divided into two parts as personal information and interview questions, and consists of 23 questions.

In the research, the students in the study group mostly found; technology supported course (92.4%) pleasant; traditional course (68.1%) difficult; technology-supported course (91.1%) exciting; technology supported course (47.5%) creativity developer; technology supported course (38.1%) contributing to the use of previous theoretical knowledge; technology supported course (80.9%) advantageously in terms of time usage; technology-supported course (90.8%) useful in terms of richness of rhythmic accompaniment; technology-supported course (90.8%) useful in terms of richness of rhythmic accompaniment; traditional course (52.4%) contributing to the development of weighing education; technology-supported course (71.4%) encouraging to accompany; technology-supported course (66.7%) contributing to melody-appropriate rhythm production; technology-supported courses (71.5%) to be useful in terms of equipment.

**Key Words:** Music Education, Technology - Supported Music Education, Garageband



**OPTIMAL APPROACH TO THE EMPLOYMENT OF OFFICE PERSONNEL IN  
THE PUBLIC SECTOR: A STUDY ON MANAGEMENT INFORMATION SYSTEMS  
AND LABOR PEACE**

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**ABSTRACT**

**Introduction and Purpose:** This study aims to gather employees with different titles (computer operator, civil servant, data preparation and control operator, etc.) who carry out office work and operations in the public sector under a single category with a common job description and to determine the optimal number of these personnel types. It emphasizes the importance of determining the parameters that will ensure employment. The aim of the study is to determine the optimum number of personnel by using factors such as job duration, importance, repetition, preparation, training and experience of the person performing these personnel types with the help of management information systems.

**Materials and Methods:** In the study, the work processes and requirements of office personnel with different titles in the public sector were determined by conducting a literature review. Then, the work processes of the personnel with these titles were analyzed using management information systems and data analytics techniques. By examining business processes in detail and applying data analysis methods, the necessary parameters were defined to determine the optimal number of personnel.

**Results:** The findings of the study revealed that salary and status differences between office personnel with different titles negatively affect labor peace. It has been determined that such inequalities between personnel doing the same job cause lack of motivation, dissatisfaction and disruption of work peace. In order to ensure labor peace and increase productivity, the need to reduce or balance salary and status differences was emphasized. In this context, the importance of ensuring salary and status equality in the process of determining the optimal number of personnel is emphasized.

**Discussion and Conclusion:** The discussion of the findings highlights the impact of the use of management information systems and data analytics in personnel management in the public sector. Additionally, a detailed discussion is presented on how the determined parameters can be optimized and business processes improved. As a result of the study, it was concluded that the use of management information systems and data analytics techniques has significant potential in office personnel management in the public sector. It has been suggested that by taking into account the parameters used in determining the optimal number of personnel, public institutions can increase their efficiency and use their resources more effectively.

**Keywords:** Public Sector; Management information systems; Staff management; Data Analytics; Optimal Employment

## THE EFFECT OF WATCHING TELEVISION ON HAPPINESS: THE CASE OF TURKEY

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### ABSTRACT

Television, due to its widespread availability and structural features, is the most commonly used mass media platform on a daily basis, after work and sleep. Seen as a means of leisure, television can isolate individuals from real-world relationships, trapping them within a virtual realm. During television viewing, individuals often perceive themselves as passive and relaxed. This state of relaxation can lead to an increase in screen time and the development of a dependency on television viewing behavior over time. The average television viewing time worldwide and in Turkey supports this dependency. In 2023, the daily television viewing time in Turkey exceeded the global average (2 hours and 33 minutes) to reach 3 hours and 44 minutes. These durations imply communication breakdowns, sedentary lifestyles, and the resulting mental and physical health issues. In this case, it is expected that people would be unhappy. Therefore, in the study, whether television viewing makes people happy or not was investigated across Turkey. For this purpose, the data from the European Social Survey (ESS) for the periods 2004-2006 and 2008-2011 were estimated using ordered probit regression model. The prediction results revealed that individuals who do not watch television at all during the day have a higher probability of being happy compared to television viewers. In predictions involving television viewing frequency, it was determined that the probability of being happy is lower for those who watch television for less than one hour, between one and two hours, and more than two hours compared to those who do not watch television at all. The negative impact of television viewing on the probability of being happy is more pronounced for those who watch television for more than two hours. The findings, consistent with results from studies in the field of happiness economics, indicate that as television viewing time increases in Turkey, the probability of people being happy decreases. Buna göre, Türkiye’de zamanın büyük bir kısmını televizyon karşısında geçiren kişilerin sosyal çevrelerinden uzaklaşarak mutsuz oldukları ifade edilebilir.

**Key Words:** Happiness, Television Viewing Time, Ordered Probit Regression Model, Happiness Economics.

## TEACHER CANDIDATES' MOTIVATIONS FOR LEARNING ENGLISH

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### ABSTRACT

**Introduction and Purpose:** Learning English is completed in different processes for students at all levels. Understanding the variables and motivation sources that affect students in the English learning process is important to conclude the learning process effectively and successfully. For this reason, this research aimed to determine the motivation of teacher candidates to learn English. In this way, we will try to understand the motivational resources that prospective teachers need in their English learning process and to contribute to their greater success in the learning process.

**Materials and Methods:** The research has the characteristics of quantitative research. In the research designed in accordance with the survey model of quantitative research, the 'Motivation Survey' developed by Özçalışan (2012) was used as a data collection tool. The sample of the research was determined based on an easily accessible sampling model. Teacher candidates studying in different teacher training programs took part in the research. In addition, an effort was made to ensure diversity in grade levels within the sample. Thus, it will be examined whether there will be a difference in the motivation of teacher candidates at different grade levels or in different programs to learn English. Validity and reliability measures were taken for the data obtained in the research. SPSS package program was used to analyze the obtained quantitative data.

**Results:** Since the analysis of the data obtained in the research is ongoing, definitive findings have not been reached yet. The findings will be presented and discussed in tables.

**Discussion and Conclusion:** It is thought that the research will contribute to the teaching of English in teacher education and the English learning of prospective teachers.

**Key Words:** Teacher Candidate, Learning English, Motivation.

## PERFORMANCE EVALUATION OF WOOD-GLASS COMPOSITE FACADE MATERIAL UNDER ATMOSPHERIC CONDITIONS

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### ABSTRACT

Materials are expected to perform their functions throughout their lifetime. A decrease in performance may be observed over time in facade materials exposed to climatic conditions. The most important parameter affecting the load-bearing capacity of wood-glass composite facade materials is the connection between the wooden frame and the glass panel. Therefore, it is important to consider the impact of environmental factors on wood-glass composite facade materials and the connection performance.

In this study, it was aimed to examine the strength of wood-glass composite facade materials created with different types of solid wood and to observe their performance under the effect of accelerated aging. In this context, experiments were carried out on small-scale specimens using soft and hard wood species. Three different solid woods; pine, beech and oak, silicone-based adhesive and tempered glass were used in the experiments.

The mechanical strength of wood-glass composite specimens before and after accelerated aging was measured by shear and pull-off tests. Accelerated aging tests include resistance tests to freezing-thawing, wetting-drying, exposure to high temperatures, acids and UV light. The data obtained from this study were analyzed by comparing them with the experimental results carried out using birch plywood in the research project within the scope of the WoodWisdom-Net Program. The test results showed that the use of solid oak wood in wood-glass composite facade material showed better performance compared to birch plywood. It also reveals that the type of solid wood has an effect on adhesion strength.

**Key Words:** Wood; Glass; Composite Material; Shear Test; Pull-off Test

## EVALUATION OF THE NUTRITIONAL AND SENSORY OF GLUTEN-FREE COOKIES MADE FROM RICE FLOUR, RAGI FLOUR, OATS FLOUR & GREEN BANANA FLOUR

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### **Abstract**

In this study, four gluten-free flours were used: ragi flour (RGF), rice flour (RF), oat flour (OF), and green banana flour (GBF). The proximate composition of these combinations was assessed, as was the nutritional profile of the resulting gluten-free cookies. A variety of cookie samples were made using the following flour mixtures: 100%:0%, 85%:15%, 70%:30%, and 55%: 45%. In order to analyse flour, flour combinations, and a sample of gluten-free cookies, the following factors were determined: moisture content, ash content, fat content, fibre content, protein content, starch content, and carb content. Their excellent nutritional profile is highlighted by the outcome pertaining to the mixture's proximal composition. In order to address the growing demand for gluten-free products, using these mixes in accordance with the substitution ratio determined in this study presents an intriguing alternative for the creation of gluten-free cookies. The results of the sensory evaluation showed that substituting up to 45% of the rice flour, oat flour, ragi flour, and green banana flour with other flours did not affect the cookies' overall acceptability. However, adding more green banana flour to the cookies decreased their acceptance, which may be because of the flour's slightly bitter flavour. On the hedonic scale, every cookie selection was deemed satisfactory in terms of overall acceptability, texture, flavour, and appearance. The analysis of the chemical content of the sample of cookies under study reveals that all three samples (C15GBF, C30GBF, and C45GBF) have better nutritional profiles than CC.

**Keywords:** gluten-free cookies, green banana flour, sensory evaluation and nutritional quality

## **THE IMPACT OF MONETARY POLICY ON DOMESTIC PUBLIC INVESTMENT**

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### **ABSTRACT**

This study examines to what extent the indigenous public investment is affected by monetary tools in Nigeria, utilizing data that covered 33years period of time (1990-2022). Employing the Autoregressive Distributed Lag (ARDL) model, the research explores the interaction between Government Capital Expenditure (GCE) as the outcome variable and independent factors such as Money Supply (MONS), Deposit Rate (DPR), and Exchange Rate (EXCH). The research includes Bound and Co-integration tests on these variables. The findings spotlight a prominent positive relationship between the deposit rate and local investment over both short- and long-term periods, whereas the exchange rate exhibits a positive and significant relationship at levels below 1%, indicating that higher domestic currency value corresponds to increased domestic investment. Notably, the study suggests that money supply has an inconsequential impact on domestic investment implying an unfavourable connection between government investment and money supply in the short run. Though it reveals a positive in impact in the long run but it is statistically insignificant

## **PRODUCTION OF BIO-PLASIC AND ITS CHARACTERIZATION USING BANANA PEEL**

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At present the chemical industry is searching for substitute to decrease usage of petroleum-based non-degradable conventional plastics. In spite of their many uses and attractive properties, petroleum based conventional plastics have also many disadvantages such as production problems, landfill disposal, incineration, plastic recycling, and their adverse effect on biodiversity. Bioplastic are plastics derived from renewable biomass sources, composed of cellulose, starches, biopolymers, and a variety of other materials. In this research a starch based substrate banana peel was used and subjected to alkali and acid hydrolysis to convert it into bioplastic film. Synthesis of bioplastic was carried out in two phases. In first stage the process parameters pH and hydrolysis time was changed over a range of values. In this stage the pH of neutral range gave the best results for tensile strength analysis 0.552N/mm<sup>2</sup> with optimum residence time (10 minutes). In the second stage, commonly available plasticizer like glycerin, sorbitol and urea was added and compared. The sorbitol, gave maximum tensile strength (34.310 N/mm<sup>2</sup>) with 41.434 N loads in this comparison. EDS analysis shows that C K was the highest element (6.73%) with 5.32 App conc and 0.7918 intensity concentration present in the biopolymer film.

**Keywords:** Bio-Plastic, Plastic recycling, Banana Peel, pH.



## A REVIEW ARTICLE PROFILING ENDOPHYTES AND ITS APPLICATIONS

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### **Abstract**

The colonization of endophytes in the internal tissues of plants are regarded as ubiquitous and has been subject of discussion in the biological systems this recent times. This phenomenon has found its use in various biological applications among which is in the detoxification of several toxins enhanced by various microbial endophytes which have been reported to be contained in plants growing in any contaminated soil. Plants in their natural state serve as hosts to endophytes which in the process forms symbiotic associations with them. The benefits that the endophytes offer to the plants include amongst others to: enhance plants growth through the production of various phytohormones; increase in the resistance of environmental stresses; produce important bioactive metabolites; help in the fixing of nitrogen in the plants organelles; help in the metal translocation and accumulation in plants; assist in the production of enzymes involves in the degradation of organic contaminants. Therefore recognizing these natural processes of the microbes will enable the understanding of effective mechanism for enhanced biological activities. This review surveys the progressive understanding of endophytes, its applications, their mechanism of operation as well as the type of interaction between them and the plants they inhabit.

**Keywords:** Endophytes, microbes, detoxifications, pollutants, plant-microbes interactions, phytoremediation.

## CARBON DIOXIDE EMISSION CALCULATION IN CEMENT FACTORY

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### ABSTRACT

In this research, carbon dioxide emissions generated during the production of clinker and burning of fuel and waste were calculated using the 2020-2022 data of a private cement factory that currently continues to produce cement and clinker and is registered with the Turkish Cement Manufacturers Association. The selected cement factory is an integrated cement factory that produces cement and clinker. As fuel in the rotary kiln; as imported lignite, domestic lignite, petcoke, LNG and alternative fuel; End-of-Life Tires (OTL), waste oil and waste-derived fuel (RDF) are used. In this study, IPCC's Scope 1 method was preferred within the scope of the Intergovernmental Climate Change Panel Guidelines and Standards in calculating carbon dioxide emissions resulting from clinker production and use of fuels.

Most of the CO<sub>2</sub> emissions in cement factories come from clinker production. In the cement factory in this study, it was calculated that 55-65% of the total CO<sub>2</sub> emissions came from the clinker production stage, 23-33% from lignite, 7-17% from petcoke, and 2-3% from the use of ETL. Other fuels are classified as "insignificant" because their proportions are less than 1%.

In addition, within the scope of this project, carbon emissions arising during cement production were calculated specifically for the facility and the changes in carbon amounts with alternative scenarios were evaluated. According to the calculations made; When alternative fuels are not used, it has been observed that the use of alternative fuels in cement production is effective in reducing carbon dioxide emissions, with CO<sub>2</sub> emissions per ton of clinker production increasing by 1% in 2021, reaching 869 kg CO<sub>2</sub>, and increasing by 2% in 2022, reaching 943 kg per ton clinker CO<sub>2</sub>.

**Keywords:** Carbon footprint, cement industry, CO<sub>2</sub> Emission, Cement Production Emissions, Greenhouse Effect, Greenhouse Gases.

## **RED SEA SECURITY: SAFEGUARDING MARITIME ROUTES AND ENSURING STABILITY IN A VITAL GEOSTRATEGIC REGION**

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### **Abstract**

This paper providing a crucial maritime route that connects the Mediterranean Sea to the Indian Ocean, the Red Sea region is extremely significant from a geopolitical standpoint. Its importance encompasses intricate geopolitical dynamics and security issues, going beyond its function in international trade. This abstract explores the vital need to protect shipping lanes and maintain stability in the Red Sea in order to sustain international trade, regional security, and economic growth.

Due to its advantageous position, the Red Sea serves as a hub for global marine trade, enabling the movement of products and energy resources between Europe, Asia, and Africa. But risks like terrorism, political unrest, and piracy still exist for this important artery. Particularly, piracy has been a serious obstacle, blocking trade routes and jeopardizing the security of vessels and crew members. Maintaining peace and stability is made more difficult by the intricate web of geopolitical rivalries and conflicts that define the Red Sea area. The rivalry for dominance between Egypt, Saudi Arabia, Iran, Turkey, and other regional nations has made tensions worse and increased the likelihood of an escalation.

A comprehensive strategy combining marine security measures, diplomatic initiatives, and regional collaboration is needed to address these concerns. Protecting marine channels in the Red Sea requires bolstering legislative frameworks, encouraging information exchange among stakeholders, and improving maritime surveillance and patrolling operations. The addressing underlying complaints, resolving conflicts, and establishing trust depend heavily on encouraging communication and collaboration among regional actors. Multilateral efforts provide forums for cooperation and coordination on matters related to marine security.

**Keywords:** Red Sea, Maritime routes, Security, Geostrategic, Stability

## RELIGIOUS MODERATION IN ADDRESSING DIVERSITY IN INDONESIA

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### Abstract

Indonesia as a nation has diversity in various aspects, including traditions, race, ethnicity, customs, culture, language, religion, beliefs, and so on. However, this diversity is not considered an obstacle to the unity of Indonesian society. This is because diversity is actually considered unique, which is supported by the unifying ideology of Indonesia, Pancasila. Diversity is something that should be grateful for by protecting and caring for it so that the Indonesian nation is not divided by foreign ideas that have infiltrated through the flow of globalization. A solution is needed that can ward off ideas that are not in accordance with the Pancasila ideology and create harmony between communities, especially in the context of religious differences. One solution to create a peaceful situation in religious life is religious moderation. Religious moderation is used to manage religious diversity in Indonesia by prioritizing religious tolerance. Religious tolerance is not about exchanging beliefs with other religious groups or merging into one belief. The true meaning of religious moderation is to implement tolerance where Indonesian people can appreciate and respect each other without taking away each person's religious rights. The aim of writing this article is to provide information to readers regarding the application of religious moderation in responding to diversity in Indonesia. The author tried to contribute writing taken from various references to make this article. The method used in writing this article is a literature review or library research, namely a study carried out in a library to collect information from books, scientific journals, documents and other library materials to be used as a reference source. The result of this article is none other than an explanation of religious moderation which can be the right step in uniting various religions in Indonesia.

**Keywords:** Religious Moderation, Diversity, Tolerance.

## INFRASTRUCTURAL DEVELOPMENT ESTIMATION: A STOCHASTIC FRONTIER OF SMALLHOLDER FARMERS IN OGUN STATE

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### **ABSTRACT**

This study investigated the impact of rural infrastructure on the smallholder farmers production in Ogun State, Nigeria. A total of 160 farming households from 20 communities under Abeokuta and Ilaro of Ogun State Agricultural Development Programme (OGADEP) were randomly selected. Descriptive statistics, budgeting, Infrastructure Index Estimation (IIE) and Stochastic Production Frontier (SPF) were used to analyzed the collected data. Results revealed that rural dwellers major economic and livelihood activities were farming (51.9%), trading (26.3%) and food processing (19.4%). The Budgeting analysis showed that food crop production was more profitable in developed areas than the less developed areas with Net Farm Income (NFI) of \$328.900 (₦119,402.90/hectare) and \$179.496 (₦65,163.68/hectare) respectively. SPF showed that total land cultivated ( $p < 0.05$ ), family labor ( $p < 0.01$ ), hired labors ( $p < 0.05$ ) as well as cost of planting inputs ( $p < 0.01$ ) significantly influenced food crop output. It was concluded that farm size, labour and cost of planting materials were the major factors affecting food crop output irrespective of the presence of infrastructural facilities or not in the study area. The research recommended that all inclusive rural infrastructural development policies should be formulated towards efficient food crop production in Nigeria.

**Keywords:** Agricultural sustainability, Budgeting analysis, Infrastructure index estimation, Stochastic production frontier

## **RISING ECONOMIC GROWTH IN SOUTHEAST ASIA**

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### **Abstract**

The Asian Development Bank (ADB) predicts that growth in Southeast Asia will increase, driven by strong domestic demand and a sustained recovery in tourism. The data source is obtained through secondary data sources. The collection method in this study uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. This economic growth is expected to grow by 4.6 percent in 2024 and 4.7 percent in 2025, up from 4.1 percent in 2023, supported by strong private consumption, public infrastructure spending and a gradual increase in investment. In addition to strong domestic demand, a turnaround in merchandise exports is another growth driver. Tourism will support services growth, while industrial production will develop in line with the export recovery and monetary easing. Rising geopolitical conflicts and tensions could disrupt supply chains and increase commodity price volatility. Risks related to the direction of US monetary policy, pressure on China's property market and the impact of severe weather are pressure points for the Asian region. It can be concluded that more efforts should be made to enhance resilience by further improving trade, cross-border investment and commodity supply networks. The things that should be encouraged to boost economic growth this year are credit growth to increase business, investment and consumption.

**Keywords:** economy, growth, improvement.

## **BIBLIOMETRIC ANALYSIS OF STUDIES ON RISKY PREGNANCY AND PREECLAMPSY**

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### **Abstract**

A high-risk pregnancy is any pregnancy that poses an increased risk to the mother or baby during pregnancy, birth, or the postpartum period. These risks may arise due to the existing health conditions of the expectant mother, conditions that develop during pregnancy, or genetic or structural problems of the baby. Preeclampsia is high blood pressure and increased levels of protein in the urine that occur during pregnancy. It usually begins after the 20th week of pregnancy and can continue until birth. This study is the first bibliometric analysis compiling studies on risky pregnancies and preeclampsia. For this purpose, Scopus and VOSviewer search engines were preferred. Data were downloaded from relevant search engines on 24.10.2023. These data were analyzed with VOSviewer and Bibloshiney. While America is the leading contributor in terms of article counts, America is both the leading country in terms of article publications and leads international collaboration efforts. The publication in which the words Risky Pregnancy and Preeclampsia are used is published in The Lancet magazine by Poston L. (2006). The article titled Vitamin C and vitamin E in pregnant women at risk for pre-eclampsia (VIP trial): randomized placebo-controlled trial is an article with 625 citations. The study also identifies the first three journals: "Journal Of Maternal- Fetal And Neonatal Medicine, American Journal Of Obstetrics And Gynecology, BMC Pregnancy And Childbirth". In particular, the "University of Toronto" stands out as the institution most involved in this subject area with the research output it produces. The most published author is "Nicolaidis KH." with 14 articles. The most used keywords include "Preeclampsia", "Pregnancy", "Pre-eclampsia". The findings of this study are valuable not only to researchers and practitioners interested in the Pregnancy at Risk and Preeclampsia method, but also to anyone who wants to gain insight into its practical applications and potential future developments. Ultimately, this research contributes to the ongoing dialogue surrounding the importance of High-Risk Pregnancy and Preeclampsia in women's health and provides a roadmap for future research efforts in this area

**Key Words:** Preeclampsia, Risky pregnancy, VOSviewer, Bibloshiney, Bibliyometric Analisisy

## ROLE OF ARTOFOCOAL INTELLOGENCE ON NEUROLOGOCAL DOSORDERS

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### **Abstract**

A significant area of computer science called artificial intelligence (AI) is successfully applied to the analysis of intricate medical data and the extraction of significant relationships from datasets for a variety of clinical purposes. AI technologies that analyse and extract features from the intrinsically complicated medical data are machine learning as well as deep learning, which can produce the required results. AI technologies that analyse and extract features from the intrinsically complicated medical data are machine learning as well as deep learning, which can produce the required results. Thus, the integration of sophisticated AI-based algorithms in the delivery of healthcare has great promise for enhancing healthcare, particularly in the areas of automated neurological problem diagnosis, evaluation, and therapeutic treatments. In order to test their theories and evaluate neuroimaging data, neuroscientists have benefited from AI-based systems. This has aided in early diagnosis and prediction of psychiatric diseases. In addition, these AI systems establish a brain-machine interface, retrieve neurological data. A number of artificial intelligence (AI)-assisted brain computer/machine interface (BCI) applications are being created to support individuals suffering from neuromuscular conditions such as spinal cord injuries or cerebral palsy. AI-based methods utilising a variety of predictor factors, including neutrophils, lymphocytes, and the neutrophil-to-lymphocyte ratio (NLR) in cerebrospinal fluid (CSF), could accurately predict the type of meningitis. When used in neuro-oncology, AI is also linked to a number of advantages because it may offer accurate preliminary diagnosis and treatment alternatives.



## **ROLE OF MOLECULAR CHAPERONES IN INDUCING CLIMATE RESILIENT POTENTIAL TO GOAT**

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Heat stress poses to be an alarming threat to goat producers and hence this issue need to be addressed by identification of climate resilient animals. Since small ruminants are more resilient to climate change, it is predicted that they will play a major role in guaranteeing food security by 2050. In this regard, an understanding of the molecular mechanism of adaptation in goats which plays a crucial role in achieving thermo-tolerance via expression of highly conserved heat shock proteins (HSPs) is necessary. Molecular chaperones, which include some HSPs and others that are not, have been shown to assist other cellular proteins in returning to their native state (proper folding or functional conformation), reaching their target (such as the endoplasmic reticulum or mitochondria), defending from stress-induced denaturation, and regaining their native state following partial denaturation. The HSP70, HSP90 and HSP27 are the predominant HSPs stated to possess a protective role during heat stress in farm animals. Among these, HSP70 was identified to be the ideal biological marker for quantifying heat stress in animals. The HSPs and other molecular chaperones are established to be expressed at higher levels in cells under stress reflecting the thermo-tolerant potential of an animal. However, the climate resilient animals may reveal a different expression pattern under heat stress conditions. Differences in the expression of HSPs in heat stress goats have been reported which were further associated with their better resilience to stress. The climate resilient potential of animals is established based on the phenotypic and genotypic traits. In this regard, the molecular chaperones can acts as a vital biomarker to assess the resilience capacity of heat stressed goats. In particular, identification of indigenous breeds which has the resilience ability to cope to different stressors associated with heat stress need to be targeted for sustainable goat production under the changing climate scenario.

**Keywords:** Climate change; HSPs; Molecular chaperones; Sustainable Goat production; Thermo-tolerance

## A NOVEL HYBRID ANALYTICAL AND GENETIC ALGORITHM APPROACH FOR ACCURATE PARAMETER DETERMINATION IN SOLAR PHOTOVOLTAIC SYSTEMS

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### **Abstract**

In the realm of solar energy, the modeling and optimization of solar photovoltaic (PV) systems play a crucial role. The performance of these systems heavily depends on the parameters within their models, which are often difficult to access. Accurately determining these parameters is vital for ensuring effectiveness and precision. Despite the development of various methodologies for parameter extraction from the PV module equivalent circuit model, ensuring the quality and stability of these methods remains challenging. To tackle this issue, this study introduces a novel hybrid algorithm that integrates analytical techniques with Genetic Algorithm (GA), a metaheuristic algorithm. The analytical method is utilized to ascertain photovoltaic current and inverse saturation current, while GA is employed to extract the remaining parameters: series resistance, shunt resistance, and ideality factor. The effectiveness of this hybrid approach is demonstrated through its application in obtaining optimal Shockley–Diode Model (SDM) parameters for four common PV modules, including R.T.C France operating at 33°C under a solar radiance of 1000 W/m<sup>2</sup>; Photowatt-PWP201, consisting of 36 polycrystalline silicon cells in series at an irradiance of 1000 W/m<sup>2</sup>; and the commercial solar panel model STP6-120/36 manufactured by Schutten Solar, featuring 36 polycrystalline silicon cells in series, at 55°C and 1000 W/m<sup>2</sup>. Additionally, the commercial solar panel model STPM 40/36 manufactured by Schutten Solar with 36 cells in series, at 51°C and 1000 W/m<sup>2</sup> is considered. The performance of the hybrid algorithm is evaluated through comprehensive comparisons with other state-of-the-art algorithms. Notably, when applied to the presented case study, the Bird Mating Optimizer algorithm demonstrates lower values of the root mean square deviation (RMSE). Consequently, the simulated current-voltage (I-V) and power-voltage (P-V) characteristics of these PV modules closely align with the measured data. These findings underscore the effectiveness of the proposed technique in deriving optimal Shockley–Diode Model parameters for various PV modules based on manufacturers' provided data.

**Keywords:** Photovoltaic, Module PV, Extraction, Genetic Algorithm, Optimal parameter.

## IMPACT OF SOCIAL MEDIA ON YOUTH

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### ABSTRACT

Today social media networks such as Facebook, Twitter, Youtube, Whatsapp, Instagram etc. become an integral part of youth's life. Youth cannot imagine themselves without using social media network. They are active on social media from early in the morning to late night. Students use social media networks in the examination periods also. These new social communication channels have been adopted by all the age groups in India. Social media have a significant impact on the society especially on the youth.

Social media networks have negative as well as positive impact on our society. It is important to know the positive and negative impact of social networking sites and applications on today's young generation. It is also important to know the benefits of social networking for youth.

This paper is an attempt to study the impact of social networking sites and applications on young generation. It is a result of a survey conducted on youth of Jalgaon and Dhule Districts. The sample size of 100 respondents was obtained by distributing well structured questionnaires. Convenience sampling method was used. The scope of the study was limited to the youth of Jalgaon and Dhule district.

The result shows that there is a significant impact of social media sites and applications on today's youth. It is also seen that there are benefits of social networks for youth. This study also describes that there were some drawbacks of social networking.

**Keywords-** Social media, networking, youth.

## NUMERICAL ANALYSIS OF PHASE CHANGE OF PHASE CHANGE MATERIAL IN THERMAL ENERGY STORAGE SYSTEM UTILIZING COMPRESSOR WASTE HEAT

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### ABSTRACT

**Introduction and Purpose:** In this study, a design has been created by using the thermal energy storage (TES) method to recover the waste heat generated during the operation of the compressor, which is one of the cooling system components in industrial refrigeration. In the design, phase change materials such as paraffin wax, which can store latent heat, were used and numerical analyses were performed during melting and solidification.

**Materials and Methods:** In this study, in order to use the thermal energy storage method of the waste heat generated in the compressor, which is one of the elements of the refrigeration system operating with the mechanical vapor compression principle, a design that will enable the waste heat in the compressor to be used more effectively and at the same time provide the preservation of the paraffin wax used as a phase change agent was designed using a computer-aided design (CAD) program. The thermal properties of the paraffin used in the design were numerically analyzed in melting and solidification using computational fluid dynamics (CFD) program.

**Results:** As a result of the design and analysis, temperatures vary depending on the compressor operating time. Therefore, the waste heat generated varies according to the thermal properties of the paraffin used in the phase change material selection.

**Key Words:** Paraffin Wax, Thermal Energy Storage, Compressor Waste Heat Recovery

## SHARIA FINANCIAL LITERACY AND INCLUSION ARE STILL NOT OPTIMAL

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### **Abstract**

OJK Chief Executive of Financial Services Business Conduct, Education and Consumer Protection, Friderica Widyasari Dewi, believes that sharia financial literacy and inclusion in Indonesia is still not optimal and needs to be encouraged further by stakeholders. Literacy has a big influence on the national sharia economic and financial market, so in parallel we must encourage aspects of sharia financial literacy and inclusion simultaneously. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. To increase the sharia financial literacy and inclusion index, several policy directions and priorities have been prepared, one of which includes acceleration and collaboration of sharia financial education programs. OJK also focuses on developing inclusive capital and access to sharia finance, strengthening infrastructure and sharia financial literacy. Sharia human resources (HR) that meet needs are still not optimal, research and development capacity and innovation in sharia service products are still limited. It can be concluded that the sharia economy will be a very strong growth foundation for Indonesia's future. To optimize the potential of the sharia economy at the global level, we must be prepared to increase the carrying capacity and contribution of national finances.

**Keywords:** Literacy, inclusion, sharia finance

## GAZALI'S VIEW ON THE CONCEPTS OF AHISM, FUTUWWAT AND UHUVWAT

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### SUMMARY

In Islamic philosophy, morality and moral virtues are the most basic norms required for the existence of societies. Morality consists of virtues that exist in human nature and are embodied by individual and social efforts. These virtues, which look after the interests of individuals and societies, ensure the continuity and peace of societies. The indispensable humanist structure of the Islamic religion has gained strength from moral values while ensuring human relations and social organization. Prophet of Islam. Companions, Islamic scholars and Islamic philosophers, especially Muhammad (pbuh), made inferences about morality and moral virtues and emphasized that the construction of a society is possible with a person having good morals. What holds societies together is their moral values and virtues. Ghazali (1058/1111), one of the Islamic scholars and philosophers, is one of our scholars who left many pages of works on the subject of morality comprehensively. According to Ghazali, morality is "a faculty settled in the soul. From it (human) actions easily arise without any intellectual compulsion. According to him, if the deeds that are praised and considered good in terms of reason and religion come from this faculty, it is called good morality, and if it comes from bad deeds, it is called ugly morality."

In Islamic moral philosophy, moral values are listed with the virtues of wisdom, chastity, bravery and justice. These virtues are reflected in the personality of individuals as superiority/inferiority qualities. Ghazali, in his work called *Ihyâ'u-Ulumi'd-Din*, deals with this issue in four parts and explains it with the criteria of disgrace/virtue. *Ihyâ'u-Ulumi'd-Din* is a new study on sciences such as fiqh and kalam, especially Sufism and ethics, especially in terms of its purposes. It is an important work of Ghazali that brings new approaches. We will see the effects of the understanding of brotherhood in Islamic ethics in our article, which will briefly touch on these virtues and also include the concepts of "brotherhood in Ghazali" and futuwwa and ahilik.

Brotherhood, one of the moral virtues, means "loving the created for the sake of the Creator", regardless of religion, language or race among people. It is one of the indispensable virtues in ensuring peace and tranquility in society with its principle. This article, which deals with the virtue of brotherhood, which includes the concept of brotherhood, includes the evaluation of the concept of brotherhood in the reference of Ghazali and his work *Ihya-u Ulumi'd-Din*.

**Key Words:** Islamic philosophy, Ethics, Ghazali, Akhism, Futuwwa, Uhuwwa.

## THE ASSESSMENT OF THE SHOP NO. 1 IN AIZANOI IN THE LIGHT OF COINS

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### ABSTRACT

The Ancient City of Aizanoi is located within the borders of the Çavdarhisar district, 54 km southwest of the Kütahya province in the Inner Western Anatolia region. Aizanoi is situated in approximately 40 km southwest of Kotiaecion, 25 km northeast of Kadoi, and about 40 km northwest of Appia. The city on the Örencik Plain plateau is listed among the cities of Phrygia Epictetus by Strabon. In this study, it is efforded to determine between which dates the shop in question was actively used with reference to the coins found from inside the shop that is named as Shop No.1 which has been unearthed during the excavation carried out in the South Stoa of the Agora. Determining the origin of the coins and which period the legends on them belong to is substantial in terms of dating the shop No.1. On the other side, the coins that reveal the commercial and cultural relations of the region appear as concrete evidence that also gives an idea about the economic and political structure of the city of Aizanoi. The range of coins attained from the aforesaid shop in the Agora of Aizanoi, an important trade center during the Roman Imperial Period, sheds light on the cultural interaction of the period as well. In this study, the motifs and legends depicted on the front and back of the six coins that belong to Roman period detected inside shop No.1 have been analyzed in detail. A catalog of these examined coins has been prepared and their dating has been executed through referring to scientific sources. As a result of the assessment of coins in question, it is concluded that the shop No.1 was in use between the 1st century AD and 3rd century AD.

**Key Words:** Aizanoi, Agora, Stoa, Coins, Bronze

## **SOME NATURAL ISOLATED COMPOUNDS AS ANTICANCER AGENTS**

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### **ABSTRACT:**

Worldwide cancer is the major cause of death. Almost 8.8 million people died due to different types of cancer such as lung cancer, liver cancer, breast cancer, stomach cancer, blood cancer etc. They various countries and some private organizations are spending trillions dollars for the research in cancer. According to report of WHO treatment cost of cancer is approximately and this amount is increasing per year. Despite of huge work the exact cause of genesis is still unknown. Couples of therapies like chemotherapy, radiation, surgery and targeted therapy are available with some detrimental effect. Now scientists are seeking lead molecule from naturally occurring substances due to high safety margin as compared to current approaches. Natural phytochemicals are prominent strategy for prevention, treating, and curing cancer. There are many phytochemicals from herbs having potent anticancer property. Generally these phytochemicals treat cancer by different mechanisms like augmenting apoptosis, cell cycle arrest, targeting to some specific cancer inducing proteins, increasing cytotoxicity etc. This is our little attempt to gather information of phytochemicals having anticancer property such as Etoposide, Curcumin, Vincristine, etc. with postulated mechanism. Etoposide is effective in lung cancer, ovarian cancer by inhibiting type II Topoisomerase. Various research revealed that Curcumin is effective in different types of cancers by increasing apoptosis and targeting specific gene such as MDM2 oncogene is inhibited through the ETS2 transcription factor by modulation of signaling pathway PI3K/mTOR in breast cancer. Vincristine shows anticancer property by oncogenic EWS-FLI1 fusion protein inhibition which cause G2-M phase cell cycle arrest & reduce tumor. This review depicts few phytochemicals having anticancer property such as Etoposide, Curcumin, vincristine, etc. with possible mechanism.

**KEYWORDS:**Etoposide, Curcumin, cancer, Topoisomerase, augmenting, apoptosis



## **SOCIAL MEDIA CRIMINALS**

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### **ABSTRACT**

In environments where internet access is available, social networks easily accessible via mobile devices offer significant opportunities for individuals in terms of communication; however, their careless use can lead to negative consequences. This study aims to provide a comprehensive examination of content deemed as criminal in posts made on the most commonly used social media platforms, focusing on their diversity, quantities, rates, and prevalence in Turkey and other countries worldwide. The research process is based on literature reviews containing extensive datasets on social media usage. Social media posts considered as crimes in Turkey have been analyzed by comparing them with similar types of offenses in other countries. These comparisons aim to provide a broad perspective on the types and prevalence of crimes. The study addresses various factors to understand the social, cultural, and legal contexts of crimes conducted through social media. It is believed that this article serves as a resource that could shed light on future similar research and provide a comprehensive knowledge base regarding social media crimes. Additionally, it is expected to present significant findings that could contribute to the development of strategies for preventing the spread of crimes via social media and the more effective implementation of existing legal regulations.

**Key Words:** Social Media Sharing Crimes; Social Media; Social Media Around the World

## LEGAL RESPONSES AND THE ROLE OF DIGITAL EVIDENCE IN CRIMINAL JUSTICE SYSTEMS

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### ABSTRACT

The rapid advancement of technology has brought about increased connectivity and innovation. However it has also led to a surge, in cybercrime posing challenges for legal systems worldwide. This article delves into the evolving responses to cyber threats and the pivotal role of forensics in enhancing the efficiency of criminal justice systems in the digital age. As cybercriminal activities become more sophisticated there is a pressing need for existing frameworks and law enforcement strategies to adapt. This necessitates a review of practices and future approaches to effectively combat cybercrime. The discussion commences by outlining types of cyber offenses that have emerged recently such as cyber scams, hacking, identity theft and cyber terrorism. It underscores the nature of these crimes, which often complicate issues related to jurisdiction and legal protocols. The narrative explores the actions taken by countries including enacting laws fostering international cooperation and establishing specialized units to combat cybercrime within law enforcement agencies. A key focus of this study is on the importance of forensics—a field that has become increasingly vital, in identifying, preserving and analyzing evidence.

The research delves into the methods utilized in investigations and the challenges faced which include dealing with encryption data volatility and the requirement, for specialized expertise. It also scrutinizes the standards for admitting evidence in court emphasizing the importance of striking a balance between effective law enforcement and protecting an individuals privacy and civil liberties. The study wraps up by delving into strategies against cybercrime stressing the significance of increased international collaboration the uniformity of cybercrime regulations and the continuous improvement of digital forensic technologies. This investigation aims to deepen understanding of the interplay, among cybercrime, legal solutions and digital forensics. Its objective is to offer an analysis of the complexities involved and ongoing efforts needed to uphold justice in this era dominated by technology.

**Key Words:** Cybercrime Legislation, Digital Forensics, Cybersecurity Law, International Cybercrime Cooperation, Digital Evidence Admissibility

## **PYURIA, BACTERIURIA, AND EMPIRICAL ANTIBIOTIC SELECTION IN PREGNANT WOMEN**

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### **ABSTRACT**

**Introduction and Purpose:** In pregnancy, early diagnosis and appropriate treatment of urinary tract infections (UTIs) prevent maternal and fetal comorbidities. The available antimicrobial agents for treatment are limited. Therefore, understanding pyuria, bacteriuria, and appropriate empirical antibiotic selection in pregnant women is crucial. This study aimed to evaluate the relationship between pyuria and bacteriuria and the susceptibility of uropathogens, as well as to review the empirical drug options for pregnant women.

**Materials and Methods:** The presence of pyuria and bacteriuria in urine samples obtained from the pregnant outpatient clinic at Kırıkkale University Faculty of Medicine Hospital's Infectious Diseases and Clinical Microbiology Laboratory between January 2023 and December 2023 was investigated. Uropathogens were identified and typed using the BD Phoenix™ M50 automated system for bacterial identification and antibiotic susceptibility testing, and antibiotic susceptibility was interpreted according to the European Committee on Antimicrobial Susceptibility Testing criteria.

**Results:** A total of 1457 urine samples were evaluated in this retrospective study. Uropathogens were detected in 235 patients, while 301 samples were considered contaminated. Uropathogens were found to be susceptible to amoxicillin-clavulanate, trimethoprim-sulfamethoxazole, nitrofurantoin, and fosfomycin, respectively, for use in pregnant women. High resistance rates to third-generation cephalosporins were observed.

**Discussion and Conclusion:** Regular surveillance of local resistance patterns is necessary to effectively guide empirical antibiotic therapy. Third-generation cephalosporins, once commonly used for UTIs, may exhibit high resistance rates and should be reserved for specific situations based on susceptibility testing.

In conclusion, the presence of pyuria and bacteriuria should prompt the evaluation and treatment of UTIs in pregnant women to prevent maternal and fetal complications. Empirical antibiotic selection should be guided by local resistance patterns, covering common uropathogens while minimizing the risk of antimicrobial resistance. Regular surveillance of resistance patterns is necessary to optimize treatment strategies and improve outcomes for pregnant women with UTIs.

**Key Words:** Asymptomatic bacteriuria; Pregnant women; Urinary tract infection; Antibiotherapy

## **IMPLEMENTATION OF CONFIDENCE INTERVALS IN FINANCIAL ANALYSIS**

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### **ABSTRACT:**

Confidence intervals are vital tools in financial analysis, providing a range within which we can reasonably expect a true parameter to lie. This paper explores the implementation of confidence intervals in financial analysis, focusing on their application in estimating various financial metrics such as returns, volatility, and correlations. Firstly, the paper discusses the theoretical foundation of confidence intervals, emphasizing the importance of statistical inference in financial decision-making. It elaborates on the methodology of constructing confidence intervals using sample data, highlighting techniques such as bootstrapping and parametric methods tailored to financial data distributions. Secondly, the paper examines practical applications of confidence intervals in financial analysis. It demonstrates how confidence intervals aid in estimating the expected return of assets, assessing the risk associated with investment portfolios, and determining the significance of financial indicators. Moreover, it elucidates the role of confidence intervals in forecasting future financial outcomes and evaluating the performance of investment strategies. Furthermore, the paper addresses the challenges and limitations associated with implementing confidence intervals in financial analysis, including assumptions about data distribution, sample size considerations, and interpretation issues. Overall, this paper provides a comprehensive overview of the implementation of confidence intervals in financial analysis, offering insights into their theoretical underpinnings, practical applications, and associated challenges. By utilizing confidence intervals, financial analysts can make more informed decisions, manage risks effectively, and enhance the reliability of financial forecasts.

## **STRENGTH AND DURABILITY PROPERTIES OF HIGH STRENGTH CONCRETE BY REPLACING SAND WITH ROBO SAND AND CEMENT WITH FLY-ASH AND USING MINERAL ADMIXTURES**

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### **Abstract**

High Performance Concrete (HPC) is a concrete meeting special combinations of performance and uniformity requirements that cannot be always achieved routinely by using conventional constituents and normal mixing. In this experimental study the partial replacement of cement and fine aggregate by the fly ash and robo sand respectively. Recently natural sand is becoming very costly because of its demand in the construction industry and BAN of sand mining in rivers. So research for the alternatives of natural sand is going to find in economical way to meet the high performance characteristics. In this path the manufactured sand called ROBOSAND is the new material i.e., arrived in the world of concrete to fulfil the requirements of Natural sand. The other material FLYASH comes from the industries as a by-product which is freely available. This project mainly focuses on achieving high performance characteristics of concrete by comparing M80 and M90 grades. The strength, workability and Durability properties for both grades are compared by varying the percentages of ROBOSAND with natural sand by 0%, 25%, 50%, 75% and 100% together with fly ash of 20% replacement in cement and 5 % silica fumes was added to the above mixture. The compressive strength, split tensile strength and flexural strength, durability studies are compared for both grades and results are tabulated and the optimum percentages are concluded.

**Keywords:** High performance concrete, High strength concrete, Robo sand, Manufactured sand, Fly-ash, Silica fume

## **CAREER INTEREST AND READINESS AMONG GRADE 10 STUDENTS OF A PRIVATE UNIVERSITY IN CEBU CITY, PHILIPPINES**

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### **Abstract**

This descriptive-correlational study aimed to identify the students' awareness regarding their career interest and career readiness regarding the learning experience, learning outcomes, and pre-college experience of Grade 10 students at a Private University in Cebu City, Philippines. Using a simple random sampling, the study drew 206 respondents, yet 198 responded. A modified Guidance Division Survey (2005) tool was utilized to gather necessary data. Frequency distribution, percentage, weighted mean, and Pearson r were employed to analyze the data collected. The study found that the respondents' profiles and career interests do not have associations with the student's career interests. Also, the respondents' age and parents' educational attainment were unveiled to correlate with the students' career readiness. Furthermore, career interest and readiness were found to have a strong positive relationship, which means the students' career interest is a solid determinant to prepare them for their future endeavors. The findings disclosed that the student's career interest is essential in pursuing their major field of specialization; their career readiness mainly supports this. The authors concluded that as early as Grade 9 or Grade 10, the students should be given a career interest survey and ready to think, prepare, and choose what career path they need to take. Thus, the Guidance Office will implement the proposed research program as a basis for its career guidance program. Widening the horizon by exploring some contributing factors that we may consider might influence the students' career interests.

**Keywords:** Career Interest, Career Readiness, Grade 10 Students, Private University, Cebu City, Philippines

**FINANCIAL KNOWLEDGE, BEHAVIOR, AND ATTITUDE OF ACCOUNTANCY,  
BUSINESS, AND MANAGEMENT (ABM) SENIOR HIGH SCHOOL STUDENTS  
OF MABOLO NATIONAL HIGH SCHOOL**

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**ABSTRACT**

In today's generation, students are careless with their finances due to a lack of financial literacy. While some may not see this as a big issue, it can negatively impact their future well-being. Aside from that, students nowadays are not mindful of their spending pattern of expenses that they spend daily, which may cause financial problems in terms of how they will budget their money for the next important daily expenses. With that in mind, this study aims to determine students' knowledge, behavior, and attitude toward Accountancy, Business, and Management Strand in Mabolo National High School toward financial practices to improve their future well-being. A suitable sampling design and a modified questionnaire based on a previous study identified 126 respondents. The survey tool was administered to the students and divided into demographic, financial knowledge, and behavior/attitude sections. The research design included a content validity test and achieved acceptable reliability through a pilot test. Results showed moderate levels of financial literacy among the students. The study highlighted the significant relationship between financial behavior and attitude through correlation, emphasizing the importance of financial literacy in influencing financial decisions. This study contributes valuable insights into students' financial literacy and the factors impacting their financial decisions, highlighting the need for enhanced financial education in schools.

**Keywords:** financial literacy, financial behavior, financial attitude, ABM students, financial management



## THE IMPACT OF SUSTAINABILITY CONCEPT ON LUXURY BRAND STRATEGIE

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### **Abstract:**

This study investigates the impact of the sustainability concept on luxury consumption and how luxury brands respond to this change. The aim of the research is to determine the extent to which the concept of sustainability affects end-to-end changes from raw material usage to brand communication. Nowadays, the concept of sustainability is gaining more meaning among consumers, and this meaning is reflected in purchasing behaviors, leading to changes in various sectors including luxury consumption. In this study, the evolution of luxury consumption from the past to the present is examined, and the impact of the sustainability concept is evaluated. While changes in consumer purchasing behavior and expectations from brands are observed in luxury consumption, it is also seen that these effects are taken into account by brands. The concept of luxury has been redefined beyond the traditional framework, along with the emergence of the second-hand market, ushering in a new era in luxury consumption. Considering the second-hand market alongside luxury consumption is important not only in terms of product reuse but also to understand how these products gain value in the second-hand market and how consumers shape their sustainable preferences in this market. Before the concept of sustainability, products made from materials such as fur and leather and their consumption were considered indicators of wealth in socio-economic context by society. However, with the introduction of the sustainability concept, the production and consumption of these products started to be perceived as unconscious and irresponsible behavior. The concept of sustainability is redefining consumers' demands and preferences for luxury products. Luxury, traditionally associated only with new and expensive products, now also finds value in the second-hand market. This situation encourages luxury brands and consumers to focus more on sustainability principles. In this context, the strategies developed by brands such as Stella McCartney, Rolex, and Mercedes to adapt to this change have been examined. This study provides important insights for professionals working in communication and brands by addressing in detail product management and brand communication strategies.

**Keywords:** Sustainability, Luxury Consumption, Brand Strategy, Consumer Habits, Luxury Brand Perception

## **SYNERGY BETWEEN TRANSPORTATION INFRASTRUCTURE AND ARABLE CROP PRODUCTION IN OYO STATE**

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### **ABSTRACT**

The study focused on perceived effect of different transportation means on food crop production in Oyo State, Nigeria. Multistage sampling technique was used to select 190 food crop farmers from two Agricultural Zone (Ibadan/Ibarapa and Saki) in Oyo State. Structured questionnaire was used to obtain needed information from the respondents. Descriptive statistics was used to analyzed the data. Results revealed that majority (74.74%) of the respondents were male with mean age, household size and farming experience estimated at 46 years, 5 persons and 13 years respectively. The major means of transporting food crops across the study area were Head portorage (56% farm to farm), 64.21% for farm to farmstead and 1.05% for village to village transporting of agricultural produce. About 60.00% and 68.42% of the respondents strongly agreed on bad road and high transportation cost as main constraint faced in means of transporting agricultural produces in Oyo state. The result concluded insufficient vehicle, high cost of transportation, low traffic volume and fuel scarcity were major constraints faced in the course of food crop transportation. The study recommended that there should be provision of good and accessible road to ease the means of transporting food crop production across the study area.

**Keywords:** Constraints; Crop; Food; Production; Traffic

## BIOMARKERS WITH POTENTIAL FOR THE DETECTION OF RENAL DISEASE IN DOGS AND CATS

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### ABSTRACT

**Introduction and Purpose:** Biomarkers are indicators that enable the functioning of normal biological functions of the organism, the monitoring of the pathogenic process, and the evaluation of the response to the applied therapeutic agent. In veterinary medicine, especially in pets, biomarkers, often adapted from human medicine, are being developed for use in diagnosing, predicting, or monitoring response to treatment and determining prognosis. Previously, veterinary diagnoses were based solely on clinical symptoms, which caused delays in treatment and threatened public health in the presence of infectious diseases. Currently, the use of quantifiable biomarkers in cats and dogs has increased considerably due to the availability of widespread laboratory equipment.

**Materials and Methods:** While serum biochemical analyses and urinalysis are employed to diagnose kidney damage, the most prevalent kidney diseases are acute and chronic renal failure. There are a paucity of kidney-specific biomarkers, rendering early diagnosis challenging. The current renal biomarkers identified by the International Renal Interest Society (IRIS) include serum creatinine, BUN, SDMA, and cystatin C values.

**Results:** In this study, several biomarkers identified that have the potential for widespread clinical use, including kidney injury molecule-1 (KIM-1), renal liver-type fatty acid binding protein (hL-FABP), monocyte chemotactic peptide (MCP-1), Netrin-1, clusterin, neurophil gelatinase-associated lipocalin (NGAL), uromodulin, and Dickkopf-3 (DKK3).

**Discussion and Conclusion:** Creatinine, one of the currently utilized biomarkers, exhibits variability dependent on race, age, and individual variability. In contrast, BUN value is indicative of numerous factors. In addition to these markers, which exhibit low diagnostic reliability in clinical use, SDMA and cystatin C are not widely utilized. Consequently, novel biomarkers are required for clinical use. The biomarkers reported in this study are novel, specific, and suitable for potential use.

**Key Words:** Dickkopf-3 (DKK3); biomarker; KIM-1; renal disease; uromodulin

## **ANALYSIS OF HISTORICAL ARCH STRUCTURES USING THE FINITE ELEMENT METHOD: THE CASE OF TEKGOZ BRIDGE**

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### **ABSTRACT**

Within the borders of Turkey, among the historical structures that have hosted numerous civilizations throughout history, there are bridges that are either on the brink of collapse or struggling to maintain their existence. Preservation, structural continuity, and historical sustainability being the fundamental objectives in historical buildings, it is important to evaluate them from a structural perspective. Thus, the implementation of strengthening techniques and/or maintenance-repair works in historical structures depends on the mechanical performance of the structure under external factors. In this context, in the study discussed, the structural analysis of the historical Tekgöz Bridge, dating back to the Seljuk period and located on the Kızılırmak River, which provides the connection between the provinces of Kayseri and Kırşehir, has been evaluated. The load-bearing system of the historical stone bridge consists of the pointed arch, which serves as the main load-bearing unit, and the smaller-scale round arch referred to as the relieving arch. The simulations of the bridge's overall structure and the supporting system composed of two different forms of arch structures were conducted using the ANSYS finite element software. The structural strength results under the influence of compression on the arch structures, as well as under axial and vertical loads, were compared. So, the aim was to understand the working principles of arch units with different forms.

**Key Words:** Historical Buildings, Stone Arch Bridges, Finite Element Method (FEM), Structural Analysis.

## THERMAL POWER PLANTS' IMPACT ON FRUIT GROWING

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### ABSTRACT

The need for energy has grown since the industrial revolution, triggering the discovery and utilization of various energy sources. In this context, it is crucial to consider environmental impacts when determining energy policies. With advancing technology, the importance of thermal power plants among energy sources has increased. However, despite the positive situation in energy efficiency, the combustion of different fuel sources results in the release of high amounts of pollutants into the environment, including heavy metals, sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), hydrocarbons, and various particulate matter. These emitted substances can be taken up by plants through direct gas intake as well as through irrigation water and soil waters. Various studies have concluded that this situation leads to physiological and morphological disturbances in plants, such as disruptions in transpiration, respiration, photosynthesis mechanisms, chlorophyll synthesis, hormonal imbalance, structural damage to nucleic acids like DNA/RNA, reduction in water uptake, limitation of root and stem development, yellowing of leaves, and deformities in shape. Furthermore, these contaminated foods can enter the human food chain, leading to health problems. Additionally, heavy metals seeping into the soil do not diminish microbially or chemically and can remain in the soil for many years, especially within a five-kilometer radius where these effects are more pronounced. Within the scope of this review, the environmental impacts of thermal power plants and their effects on fruit cultivation have been examined in the light of existing literature.

**Key Words:** Environmental pollution, Health, heavy metal, fly ash

## THE EFFECT OF METAKAOLIN ON MODULUS OF ELASTICITY OF CONCRETE

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### **Abstract**

This study presents the effect metakaolin elasticity of concrete in previous studies, the result shown metakaolin as pozzolanic material when used as partial replacement of Portland cement, modifies the mechanical properties of cement – based materials including the modulus of elasticity, Metakaolin reduces elastic modulus of cement mortar at any replacement level more than 10%. The reduction proportions with replacement ratio, finally the using of metakaolin at levels less than 15% causes increase the elastic modulus of the conventional concrete while 30% metakaolin or more leads to significant deterioration in elastic modulus.

**Keyword:** metakaolin, elasticity, Portland cement, recycled aggregate

## THE IMPACT OF TURKISH LANGUAGE ON THE LIBYAN DIALECT

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### ABSTRACT

Language is a human phenomenon as old as man's existence. It is a mirror of the civilizations of peoples and societies, and a reflection of the harmony that occurred between the languages of the world, when each language took on some phonetic, syntactic, or semantic characteristics from the other languages through many factors, such as Language contact which is a result of communication and interaction between two different peoples. This research addresses the topic of the semantic level of the language and how the Turkish language affected the Libyan Arabic dialect at the level of daily vocabulary used in speech through the linguistic contact that occurred between the Turkish Ottoman And Libyan Arabic speakers due to the long-standing historical relations between the two countries, where Tripoli - the capital of Libya today - belonged to the Ottoman Empire for more than three centuries. In this paper, the descriptive analytical method was followed. Turkish-origin words used in the Libyan dialect, especially in the city of Tripoli, were collected and analyzed in terms of the changes that occurred in the Libyan dialect at the phonetic and semantic levels. At the end of this research, the paper concluded that the influence of the Turkish language on the Libyan dialect was strong and deeply rooted in the dialect. Although Libya's secession from Ottoman rule, these words remained in use until the present day as an integral part of the dialect and its identity. Since its speakers do not realize that they are words borrowed from another language, unlike the Italian words that entered the Libyan dialect in the following era, despite their widespread use in the dialect's daily speech, the local speaker is often aware of their etymology.

**Key Words:** Arabic Language - Libyan Arabic Dialect - Turkish Language - Language Contact – Semantic.

## THE INFLUENCE OF INDONESIA'S FUNDAMENTAL ECONOMIC STRENGTHS ON DAMPENING THE MIDDLE EAST CONFLICT

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### **Abstrack**

Observations on the development of conflict in the Middle East after the Israeli attack on Iranian Diplomatic facilities in Damascus and Iran's counterattack on Israel, in that several directors and ambassadors in various parts of the world hoped that this development would not escalate because it would have an impact on the economies of countries in the region and include an impact on Indonesia. In this research, the research approach used is a qualitative method. Sources of data obtained using secondary data sources. The collection method in this study uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. The increase in the geopolitical conflict between Iran and Israel at the weekend had an impact on global economic conditions. Global crude oil prices are still fluctuating. The escalation of the geopolitical conflict has also made the US Dollar index increase, which led to the weakening of the financial indicators of a number of countries, especially emerging markets. based on foreign spot market data. the Rupiah exchange rate is at the level of Rp16,060 or has appreciated 0.31% (dtd), better than other countries such as Korea, the Philippines, and Japan. It can be concluded that the way to reduce the impact of rising global oil prices due to the geopolitical conflict between Iran and Israel, the Government must pay close attention to the condition of the state budget so that it can play its role optimally as a shock absorber.

**Keywords:** power, economic fundamentals, middle east conflict



## **THE MOST EFFECTIVE METHOD TO BREAK DOWN THE DATUM ASSUMING IN MANUALLY WRITTEN STRUCTURE DEVICES' EXPECTATION'S**

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### **ABSTRACT**

Dissecting manually written information can be somewhat more testing contrasted with composed text, however there are a few instruments and strategies you can use for it. OCR programming can change over transcribed text into computerized text. Instruments like Tesseract OCR, ABBYY FineReader, or Adobe Gymnastic performer Peruser offer OCR abilities. These devices can assist you with digitizing the transcribed information, making it simpler to dissect utilizing other programming. On the off chance that you have a huge volume of manually written reports, utilizing a computerized scanner to make computerized duplicates is a decent choice. Most scanners accompany OCR programming or can incorporate with outsider OCR instruments for changing over written by hand text into editable advanced text. There are explicit programming programs intended for penmanship acknowledgment. These apparatuses can investigate and decipher manually written text, permitting you to look, alter, and control the text carefully. A few models incorporate MyScript and Microsoft's Penmanship Acknowledgment Motor. In the event that you have a lot of manually written information however come up short on assets or skill to digitize it yourself, you can consider re-appropriating the undertaking to information record administrations. These administrations utilize human typographers or high-level OCR innovation to precisely change over manually written text into computerized design. When the transcribed information is digitized, you can utilize NLP devices and libraries like NLTK (Regular Language Tool compartment), spaCy, or Stanford NLP to perform different investigations like feeling examination, element acknowledgment, or point displaying. In situations where the penmanship contains urgent data or is essential for measurable examination, counseling penmanship investigation specialists or scientific report analysts might be fundamental. These experts can give bits of knowledge into the qualities of the penmanship and any basic examples or abnormalities. Assuming the transcribed information is moderately little in volume or contains particular substance that OCR battles with, manual record might be the best choice. This includes composing the transcribed substance physically into a computerized design. Contingent upon the volume, quality, and reason for the written by hand information, you might pick one or a blend of these devices and procedures to really examine it.

**Keywords:** contrasted, digitizing, transcribed, dissect, editable, penmanship.

## THE RIGHT TO SELF-DETERMINATION SEEN THROUGH ARTWORK: THE MONUMENT OF THE FIVE DAYS OF MILAN

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### ABSTRACT:

**Introduction and Purpose:** The so-called “Five Days” of Milan played a fundamental role within Italian historical-legal literature. Indeed, they are not only descriptive of the revolutionary push against Austrian domination, but, more importantly, they highlight the importance of the right of self-determination in the construction of a unified state. This victory in 1848, in fact, was due to the complete cooperation of the Milan population, who fought as “one man”, united on the barricades. This means that they were so in sync in opposing the Austrian enemy that they didn’t need coordination in their actions to succeed: the entire population objected to being ruled by a foreign sovereign. This proposed contribution aims to shed a new light on the right of self-determination in relation to artwork.

**Materials and Methods:** This paper aims, through a careful analysis of historical-legal facts and artistic iconography, to examine the choice of a population to steer in the right direction; to choose itself the Government in a way that had reshaped the course of history, particularly in terms of governmental and territorial balances. Montesquieu's Enlightenment doctrines regarding the relativity of natural law will be considered in this analysis. This principle is the ground of modern nationalism and it played an influential role on people’s mindsets in desiring to autonomously choose one sovereign rather than another.

**Results:** The artistic choice of representing a monument consisting of five female figures, the goddesses of the barricades, illustrates the characteristics of the time: women are the representation of motherland and the motherland is the centre of the interests of the era of Risorgimento. era. This proposed contribution shows how important is to celebrate the days that changed the course of history and the shape of a nation due to the will of a population.

**Key words:** Art; History; Law; Five Days of Milan; urban warfare; Italian Risorgimento; self-determination right; art & power; Art History.

## **THE ROLE OF DISCRETE MATHEMATICS IN ADVANCING BIOINFORMATICS RESEARCH**

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### **ABSTRACT**

Discrete mathematics provides essential tools and techniques for analyzing medical data, optimizing healthcare processes, and facilitating informed decision-making in the field of medicine. Discrete mathematics plays a fundamental role in various aspects of bioinformatics, an interdisciplinary field that bridges biology, computer science, mathematics, and statistics. This abstract elucidates the pivotal role of discrete mathematics in bioinformatics, highlighting its significance in handling discrete biological data, developing efficient algorithms, modeling biological processes, and facilitating interdisciplinary collaboration. Discrete mathematics serves as a common language that facilitates communication and collaboration among researchers from different disciplines, enabling them to address complex biological questions using mathematical and computational approaches. Discrete mathematical structures, such as graphs, trees, and sequences, are used to represent biological data and relationships between biological entities. Biological data, such as DNA sequences, protein structures, and genetic networks, are inherently discrete in nature. Discrete mathematics provides the necessary tools and techniques to analyze, model, and interpret these discrete datasets effectively. Discrete mathematics offers a rich array of algorithmic techniques which enable tasks such as sequence alignment, protein structure prediction, gene expression analysis, and network inference to be performed accurately and efficiently. As bioinformatics continues to evolve, discrete mathematics will remain indispensable in driving innovation and unlocking new insights into the complexities of life.

**Keywords:** Bioinformatics, algorithms, interdisciplinary collaboration, discrete mathematics

**THE ROLE OF THE DEVELOPMENT OF SERICULTURE IN SOLVING THE  
POPULATION'S EMPLOYMENT PROBLEM IN THE SHEKI-ZAGATALA  
ECONOMIC REGION**

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**Abstract**

The development of sericulture in the Sheki-Zagatala economic district has an important role in solving the employment problem of the population. Thus, the development of this field in the region has a significant impact on eliminating unemployment, providing employment to the population, significantly improving the material well-being of the population, preventing migration of the population in the Sheki-Zagatala economic region, and thereby solving socio-economic problems. Application of productive and economically efficient mulberry silkworm breeds and hybrids obtained at ANAS Sheki Regional Scientific Center plays an important role in increasing the economic income of the population, solving the socio-economic situation of the population, and solving the problem of migration.

**Key words:** cocoon, sericulture, economic efficiency, employment

## **THE TASK FORCE WILL DEFINITELY STRENGTHEN COORDINATION IN ERADICATING ILLEGAL FINANCIAL ACTIVITIES**

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### **Abstract**

The Task Force for Eradicating Illegal Financial Activities (Satgas PASTI) held a coordination meeting to strengthen the synergy in implementing the eradication of illegal investments, illegal online loans and various other illegal financial activities in order to further protect the public. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. It can be concluded that when opening the event, OJK's Chief Executive of Financial Services Business Actor Behavior Monitoring and Consumer Protection, Friderica Widyasari Dewi, said that the synergy of cooperation and collaboration between ministers and institutions must be further enhanced to support the realization of comprehensive efforts to eradicate illegal financial activities within the framework of consumer protection. and the public in the financial services sector. Chairman of the PASTI Task Force, Sarjito, said that this meeting was expected to further strengthen and make the task of the Task Force more effective, not only for members' illegal financial activities but also for prevention, handling cases and efforts to return victims' assets. The existence of the PASTI Task Force is confirmed in the Financial Sector Development and Strengthening Law (P2SK) which mandates that the OJK together with related authorities, ministries and institutions form a task force to handle business activities without permits in the financial sector.

**Keywords:** Eradication Coordination, Activities, Illegal Finance

## THE TYPES OF ADOLESCENT STRESSFUL EVENTS AS A BASIC FOR MENTAL-HYGIENIC MEASURES TO MAINTAIN AND STRENGTHEN PHYSICAL AND MENTAL HEALTH

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### Abstract

**Introduction/Aim.** Adolescents are exposed to numerous life stressors that affect their adaptive abilities and quality of life. The aim of the research was to determine the types of stressors adolescents were exposed to in school, family and life in general, as a basic for mental-hygienic measures for work with adolescents in strengthening the ability to cope and overcome stress situations. to maintain and strengthen physical and mental health.

**Methods.** The research was carried out on a sample of 248 adolescents, 176 female and 72 male, aged 15 – 18, using Questionnaire for determining the type and intensity, with a rating from 1 to 10, of stress in school, family and life in general. The Questionnaire, also, examined the abilities of adolescents in overcoming stressful life situations. The data were processed by using descriptive statistics.

**Results.** The obtained results showed that in the list of life stressors of adolescents, according to their strength, negative stressors predominate. The strongest stressors in the general sample were: death in the family (9.53), illness of a family member (8.94), divorce of parents (8.15), separation from a loved one (7.85), infidelity of a loved one (7.33), own illness (7.02), bad grades at school (6.72), parents' quarrels (6.71), parental bans, punishments (6.50). Significant gender differences were found in the types and intensity of life stressors, ( $p < 0.05$ ): bad grades, knowledge tests, ridicule by peers, getting a good grade, punishment by parents and separation from a loved one. The strongest stresses for female adolescents are: death of a family member (9.9), parting with a loved one (8.6) and a bad grade at school (7.4), while for young men: death of a family member (9.17), parting with a loved one (7.55) and waiting for the results of the knowledge test (6.94).

**Conclusion.** The growing up of adolescents was accompanied by exposure to numerous negative stressors in the family, school and life in general, accompanied by strong, long-lasting negative emotions. The most common and strongest negative stressors of adolescents were related to the family, then to emotional relationships with emotional partners, especially for girls. Types of adolescent stress at school and higher evaluation of grades than knowledge alone, recommends changing the value system in personality socialization, as a preventive mental-hygiene measure. The recommended mental-hygiene measures for work with adolescents in strengthening the ability to cope and overcome stress situations were: developing the ability to communicate, acquiring social skills and create a social field, facing and overcoming negative emotions, and learning the correct way of making decisions.

**Key words:** adolescents stress events, mental-hygiene measures

## **A NEW METHOD FOR MONITORING AND DIAGNOSING THE TECHNICAL CONDITION OF SENSOR DEVICES BASED ON THEIR NOISE CHARACTERISTICS**

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Nowadays, the solution of the problem of monitoring and diagnostics of complex technical objects at all stages of its functioning is one of the main tasks in the theory of information and the construction of measuring systems. It is important to foresee possible malfunctions at the planning stage of the device model and minimize them during its operation.

Embedded systems have been widely developed today, since they allow analyzing the parameters of a certain measuring system without the necessary removal of measuring devices and sensors from the object. Most of them are built of some kind of measuring system with a set of sensors and microprocessor systems that control the macroscopic parameters of the device with a given degree of accuracy and with the required polling frequency

At the same time, it is important to ensure the synchronicity of the sensor polling procedure, as well as to calibrate them in accordance with the mode in which they operate. It is impossible to exclude the fact that there are always probabilities of false alarm errors and missing a goal. The main task is to minimize these deviations, since they can make a significant error in the measurement results. It is worth considering the fact that when building an information and measurement system, the accuracy of each subsequent block should be no worse than the previous one.

**Key words:** technical system, data processing, correlation.

## INVESTIGATION OF PARACETAMOL RELEASE FROM THYME OIL-CONTAINING ORGANO-HYDROGELS AT DIFFERENT PHS AND THE EFFECT OF KINETIC MODELS

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### Abstract

Herbal and herbal oils obtained from plants are used in many areas due to their natural, cheap, easy-to-process, biodegradable, corrosive, and non-toxic properties. The use of new polymeric materials, especially obtained from herbal and herbal oil which maintain their structural properties for a longer period, as controlled drug release support materials in the medical field is among the most popular topics of recent times. This study focused on the synthesis of new organo-hydrogels based on thyme oil and their use as drug-release support materials. In the synthesis of organo-hydrogels (poly(AG-co-TO)), cross-linking of agar (A), glycerol (G), and thyme oil (TO) was achieved in an emulsion environment by free radical polymerization technique. Glutaraldehyde (GA) and methylene bisacrylamide (MBA) were used as cross-linkers. In poly(AG-co-TO) based organo-hydrogel synthesis, while the amounts of A, G, GA, and MBA were kept constant, TO was added to the polymerization medium in three different amounts. At the same time, paracetamol was chosen as the drug and was added to the polymerization mixture to ensure its physical or chemical binding to the organo-hydrogel structure. Finally, the release behavior and release kinetics of the drug paracetamol from the synthesized drug-loaded organo-hydrogel structure in different pH environments were examined. As a result of the release experiments, it was found that the highest release amount was 89.83 for p(AG-co-TO)<sub>3</sub> at pH 7.4 after 4320 minutes. It was determined that the drug release efficiency of paracetamol-loaded organo-hydrogels increased as the amount of TO added to the structure increased. In light of the results obtained, it is thought that the use of thyme oil-based organo-hydrogels as drug-release support materials will make a significant contribution to the literature.

**Keyword:** Thyme oil, Organo-hydrogel, Paracetamol, Release, Drug kinetics



## **ANALYSIS OF BANK INDONESIA'S INTEREST RATE HIKE POLICY IN 2024**

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### **Abstract**

Bank Indonesia (BI) has raised its BI Rate to 6.25%. The increase in the BI rate was in response to rising inflation and the declining rupiah exchange rate. The BI rate as one of Bank Indonesia's monetary policy instruments also has a basic objective as monetary policy, namely maintaining the stability of the price of goods. In this study the research method used is a qualitative method. Sources of data obtained using secondary data sources, namely online news. The collection method in this study uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. If we look at it until now, it might be said that this policy has not been effective because the rupiah exchange rate has almost touched Rp 16,000 per 1 U.S. Dollar. A high interest rate policy will suppress economic growth and result in a rapid and large contraction. It can be concluded that Bank Indonesia's high interest rate policy will result in a lack of economic growth impetus and a large contraction. Therefore, to mitigate the impact of high interest rate policy from BI, banks should anticipate so as to put the brakes on the expansion rate, bearing in mind that the process and transmission of monetary policy always takes a long time and has a lag.

**Keywords:** BI rate, Indonesia's Economic Growth, Monetary Policy

## INTERNATIONAL RELATIONS AND FASHION

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### **ABSTRACT**

No doubt one of the subjects that needs to be discussed in the international relations discipline is the fashion sector. This study aims to inspect the connection between the fashion sector and international relations. The study seeks to answer the question, whether fashion sector has any effect on the international relations. The hypothesis of this study is formulated as follows: Countries that are able to change the course of fashion sector, builds an indirect authority on the other societies by spreading their values such as social and cultural features, understanding of art, systems of beliefs, through apparel and attire designs, accessories etc. To add to this, these countries have a considerable pull on other societies by producing a positive image through these components. Also, these countries manage to increase their capacities and their activities within the international system through the economic input thanks to products with high brand value they are able to market. When all these are taken into consideration, it can be said that the fashion sector has a noteworthy effect on the international relations.

The roadmap that will be followed to answer the question above will be as follows: Firstly, the structural nature of the international relations will be briefed upon. Later, the main features of the fashion sector will be highlighted. Afterwards, the effect of fashion sector on the international relations will be analysed in a detailed manner through the gained findings. There aren't enough studies that focuses on the effects of fashion sector on the nature of international relations. For this reason, this study will contribute to decrease this deficiency in the literature.

**Key Words:** International Relations, International Politics, Fashion.

## INTERNATIONAL RELATIONS AND SCRIPT WRITING

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### ABSTRACT

This study aims to highlight the importance of script writing in the movie sector in the international relations field. The question that will be tried to be answered in this study is, whether the scripts of movies produced by globally prevalent studios had any effects in international relations. In this regard the hypothesis of the study is formulated as; ‘In some of these movies that were produced by the aforementioned studios, subjects related with international relations are focused on in a deliberate manner. Hence, some movie scenarios are produced in a deliberate manner to shape the comprehension and ideas of people on the relations of nations. In that respect it can be said that the script writing produced in the movie sector has an impact on the international relations.’

Coherently answering the question highlighted above will be possible by following the roadmap below. First of all, to make the assessments to be more understandable the movie sector will be focused on briefly. Afterwards the main parameters and important lines of script writing in the sector will be deliberated upon to deepen the study. Subsequently the effects of script writing in the movie sector will be analysed through a sample of movies. Finally, all the findings will be displayed in a manner of systematic integrity. There aren’t enough studies that focuses on the effects of script writing on the international relations. This study will contribute to elevation of this deficiency. Also this study will expand the access to script writing within the movie sector.

**Key Words:** International Relations, International Politics, Cinema, Script Wrighting.

## THE EFFECTS OF ELECTROMAGNETIC FIELD AT 2-2.45 GHZ MICROWAVE FREQUENCY ON ER STRESS IN RAT BRAIN TISSUE

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### ABSTRACT

**Introduction and Purpose:** EMF is a space in which electrically charged particles move under force. Wi-Fi is the technology that emits EMF. ER stress causes various diseases by accumulating unfolded or misfolded proteins, which disrupt the functioning of the ER. GRP78, located in the ER, helps to fold proteins and, after ER stress occurs, activates the UPR and intracellular signaling pathways to maintain homeostasis. UPR activates IRE1, PERK, and ATF6 signaling pathways. In our study, we examined the effect of EMF on ER stress by determining the changes in GRP78, PERK, IRE1, and ATF6 gene expression levels in brain tissues of rats exposed to EMF at 2-2.45 GHz MW frequency.

**Materials and Methods:** 24 Wistar rats were used as group I (n=12, not exposed to EMF) and group II (n=12, 3 V/m 2.45 GHz MW, 1 h/day, 60 days). In homogenized brain tissues, obtained mRNAs were translated into cDNA and GRP78, PERK, IRE1, ATF6 gene expression levels were measured by qPCR.

**Results:** No statistically significant difference was found in GRP78 (p=0.812), PERK (p=0.429), IRE1 (p=0.406), ATF6 (p=0.485) gene expression levels between group I and II.

**Discussion and Conclusion:** In our study, it was observed that EMA did not induce ER stress in the brain tissue of rats. These results suggest that EMA may not cause future neurodegenerative and cancer diseases by inducing ER stress in brain tissue.

**Key Words:** ER stress, GRP78, PERK, IRE1, ATF6

## UNDERSTANDING THE EXPRESSION LEVEL OF NF1 AND TTN GENES IN LUNG CANCER

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### **Abstract**

Cancer is characterized by uncontrolled proliferation and abnormal growth of cells of different tissues in the body. Tumors could be of benign or malignant in nature. NSCLC (non small cell lung cancer) is a major contributor in increasing the mortality worldwide and main etiological agent is tobacco smoking. Studies had revealed that disruption in transcriptome regulator and epigenetics act as a major contributor in carcinogenesis. Deletions or low expression of tumor suppressor genes such as, NF1, SMARCA4, KEAPI, TP53, CDKN2A, STK11 and RB1 can be a reason for lung cancer. Current study was designed to identify the expression level of NF1 (onco suppressive gene) and TTN (oncogenic gene) and to evaluate involvement of these genes in (NSCLC). Biopsy of lung tissues were collected from Allied Hospital Faisalabad and were preserved in 10% formalin solution for histopathology while as, biopsy samples were placed in Trizol for mRNA extraction. Quantitative real time PCR was used to measure the expression level of NF1 and TTN genes. Quantitative Real Time PCR results revealed that significant ( $p < 0.05$ ) down regulation of Onco-suppressive NF1 gene and there is significant ( $p < 0.05$ ) up regulation of TTN gene in biopsy samples isolated from NSCLC confirmed patients as compare to control sample. Histopathological results revealed that high proliferation and marked cellular growth in positive lung tissue in comparison to control one. Results were statistically analyzed by using ANOVA and DMR.

**Keywords:** NSCLC (non-small cell lung cancer), Mortality, Epigenetics.

## USES OF ACCOUNTING INFORMATION FOR BANKS

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### **Abstract**

An accounting information system is a network of all procedures, forms, records and tools used to process financial data into a form of report that will be used by management in controlling its business activities and then used as a management decision making tool. The accounting information system, also known as AIS, is a unified business process system that is interconnected with each other. In this research, the research approach used is a qualitative method. The data source obtained uses secondary data sources. The collection method in this research uses data collection techniques with documents. The data analysis technique in qualitative research is inductive. For a bank, the accounting information system is very useful for seeing the health of your finances. It can be concluded that the accounting information system will be used to carry out analysis when you borrow money from the bank, where the bank will disburse funds to you after seeing the financial reports of your business. Having an accounting information system can also help you when your business is not growing and you have arrears to the bank. The bank will provide installment relief for you by looking at your business financial reports, so it is very important for you to submit financial reports.

**Keywords:** Information, Accounting, Bank, Uses

**USING FISH SCALES AS A NEW BIOSORBENT FOR THE ADSORPTION OF METHYLENE BLUE FROM WASTEWATER: OPTIMIZATION, EFFECT OF PHYSICOCHEMICAL PROPERTIES, KINETIC MODELS AND THERMODYNAMIC PARAMETERS**

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**Abstract.**

Today, the world is facing a water crisis due to the shortage of drinking water. With the rapid development of various industries, a huge amount of wastewater has been produced by industrial processes and discharged into soils and water systems. In the present study, fish scales have been successfully characterized and valorized as natural and cost-effective adsorbents without any prior treatment for methylene blue (MB) elimination from aqueous sources throughout a wide scale of concentrations. Various physicochemical features were investigated using FTIR, BET, TGA, pH<sub>zpc</sub>, SEM, and XRD techniques. The gathered data were next subjected to analysis, and pertinent parameters were modeled to clarify the efficacy of the activated carbon treatment. This process yielded important information for refining this technique for practical uses. Our investigation on the use of activated carbon for wastewater treatment produced interesting findings that demonstrated how well this technique works to drastically lower pollutant levels. Significant increases in the quality of water were achieved as a result of activated carbon's strong capacity to adsorb a wide variety of pollutants, including colors. Important influencing variables including contact time and activated carbon dosage were also revealed by the study, providing insight into the ideal circumstances for increasing therapy efficacy. Additionally, our results highlight the potential of activated carbon for scalable and sustainable wastewater treatment, providing important insights into the real-world application of this powerful and adaptable technology for tackling water pollution issues. This research contributes valuable knowledge towards the development of efficient and eco-friendly strategies in the field of water purification. We discovered that activated carbon has exceptional adsorption capabilities, effectively reducing diverse contaminants in wastewater and that its optimization parameters provide valuable insights, indicating its importance as a promising and sustainable solution for wastewater treatment, contributing to the larger goal of environmental preservation.

**Keywords:** Adsorbent, Wastewater, Methylene Blue, Fish Scales, Pollution.

## UTILISING MICRORNAS AS A THERAPEUTIC APPROACH FOR CANCER

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### **Abstract**

MicroRNAs (miRNAs) are small RNA molecules that are extremely conserved and do not code for proteins. They have the ability to regulate gene expression by specifically targeting and interacting with various molecules. Initial research has suggested that the levels of miRNA expression undergo significant changes in different tumour tissues and cancer cell lines. The diversity observed in practically all biological processes, including cell proliferation, motility, survival, and differentiation, is well acknowledged. Recent findings indicate that the abnormal regulation of miRNA molecules can be used as a diagnostic tool for different medical conditions, including cancer. Moreover, miRNA can exert a causal influence in many phases of cancer formation, functioning as either oncogenes or tumour suppressor genes. Ongoing endeavours are being made to develop anticancer medications employing miRNAs, with the objective of augmenting the efficacy of cancer therapy.

**Keywords-** cancer; microRNA; gene therapy; oncogene; tumor suppressor gene



## LYRICS OF MAGTYMGULY PYRAGY IN HUNGARIAN TRANSLATIONS

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### ABSTRACT

Translations of the works of the brilliant Turkmen poet Magtymguly Pyragy were published in Hungary in the early 1980s, on the occasion of his then anniversary – the 250<sup>th</sup> anniversary of his birth. Also at that time there was a great interest in Turkic literatures in line with the idea of genetic kinship between Hungarians and Turks.

In 1982, the book “Aranykert” (“The Golden Garden”) published translations from the Asian “literatures of the peoples of the Soviet Union”, including eight poems by Magtymguly. In the preface, the author of the translations, Géza Képes, gave a brief description of the epoch of the poet’s life, the main motifs of his work, the typology of his works and ancient Hungarian literature. In his translations, G. Képes was able to reproduce the main content and features of the form of goshgy, the favorite genre of Pyragy.

The following year, the book “Magtymguly Pyragy. Álmunkban múlik el” (“Mqgtymguly Pyragy. Everything in dreams flows”), which contained 126 poems by the Turkmen poet translated by Dezső Tandori, the most famous Hungarian poet, novelist, essayist, and translator. The book also contains the poems of Magtymguly in translations of the second half of the 19<sup>th</sup> century by one of the discoverers of Pyragy for the European reader – Ármin Vámbéry. In his “Afterword” Imre Baski describes the Turkmen 18<sup>th</sup> and 19<sup>th</sup> centuries, full of internecine strife and destruction, but called the “golden age” of Turkmen literature. He also presents the biography of the most outstanding poet of Turkmenistan Magtymguly, characterizes the main images and motifs of his work, the features of syllabic meters, the genre of goshgy, and the rhymes of his stanzas. In the “Explanatory Glossary” I. Baski gives an interpretation of about 170 names, objects, concepts, phenomena from the works of Pyragy.

In his translations of more than 110 goshgy, two ghazals, four muhammas and two musaddas, D. Tandori skillfully reproduces the content of Magtymguly’s works, verse meters, rhymes, rhymes of stanza-genres, redifs (refrains) and pre-redif rhymes. His translations are a significant contribution not only to Hungarian but also to world Magtymguly studies.

The publication was written to commemorate the 300<sup>th</sup> anniversary of the birth of Magtymguly Pyragy in 2024.

**Keywords:** Magtymguly Pyragy; Translated; syllabic versification; redif; goshgy; muhammas; musaddas.

## MOBILE MEDIA CONSUMPTION AND RESPONSIVE DESIGN IN NEWS WEBSITES: IMPORTANCE AND IMPACT

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### ABSTRACT

Advancements in technology have transformed media consumption habits. Mobile devices have become one of the most important tools for accessing news and information in our age. This has forced news websites to focus on mobile compatibility and user experience. This article aims to examine how the increasing trend of mobile media consumption affects news websites and how responsive design adapts to this change.

**Importance:** Mobile devices have become one of the most significant sources of traffic for news websites. Responsive design ensures users to have an optimal experience on mobile devices by adapting to different screen sizes and resolutions. The growing role of mobile devices in media consumption has led to significant changes in the design and presentation of news websites. This article examines how mobile media consumption affects news websites and how responsive design adapts to this change.

**Methodology:** This article uses a literature review and case study method to investigate mobile media consumption and the role and impact of responsive design on news websites. The responsive design implementations of five most visited news websites in Turkey are analyzed.

**Discussion and Conclusion:** Considering that mobile media consumption is rapidly increasing, responsive design helps news websites adapt to this change and ensures mobile users to have an optimal experience. The use of responsive design significantly increases mobile traffic and user engagement on news websites.

**Key Words:** Mobile Devices; Media Consumption; Responsive Design; News Websites; Mobile Optimization

## RISING MARKET SHARE OF WEARABLE TECHNOLOGY AND CONSUMER PREFERENCES

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### **ABSTRACT**

Wearable technology has experienced tremendous growth and development in recent years. Products such as smartwatches, fitness trackers, and VR glasses are used in various areas, from health and fitness to entertainment. This study examines the rising market share of wearable technology and consumer preferences in this market. In this context, this article examines the consumer demand for wearable technology products and the predicted changes in their purchasing behavior compared to other technological products. The purpose of this study is to analyze the market share of wearable technology and the factors influencing consumer interest in these products.

**Importance:** Wearable technology has the potential to impact many aspects of human life. The findings of this study will provide valuable insights into how wearable technology can be used in marketing and advertising.

**Methodology:** The research method is the content analysis of qualitative research methods. Relevant data will be collected from We Are Social's 2020, 2021, 2022, and 2023 Global and Turkey Reports. The statistics and analyses presented in the report will be examined and interpreted. The findings will be analyzed to answer the research questions about the market share and consumer preferences of wearable technology. The importance of e-commerce, consumer preferences towards new technologies, and their impact on purchasing behavior will be taken as data and be examined in the findings part

**Discussion and Conclusion:** The findings of this study will show how the market share and consumer preferences of wearable technology have changed over time. It will also reveal the attitudes and purchasing behaviors of different consumer segments towards wearable technology.

**Key Words:** New Media; Wearable technology; Consumer Preferences

**EFFECT OF THE USE OF AMMONIUM POLYPHOSPHATE ON CERTAIN  
MECHANICAL, PHYSICAL AND COMBUSTION PROPERTIES OF  
PARTICLEBOARD**

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**ABSTRACT**

Particleboard, which is one of the most used products among wood-based boards, is preferred due to its advantages compared to solid materials, such as being an alternative to raw material shortage, being able to be produced in the desired density and size, and using various additives during its production (hardener, paraffin, etc.). In addition, particleboard has disadvantages such as deterioration in its dimensional stabilization as a result of direct contact with water and moisture at the place of use, and low resistance to fungal and insect damage. Another important disadvantage of wood-based boards is their low resistance to burning. In this study, single-layer (650 kg/m<sup>3</sup>) particleboards were produced from red pine wood chips by adding 3%, 5%, 7% ammonium polyphosphate as fire retardant, using 10% urea formaldehyde glue and 2% hardener (ammonium chloride). The effect of the use of fire retardant additives on certain mechanical (bending strength, modulus of elasticity in bending), physical (water absorption and thickness increase) and combustion properties (limit oxygen index) of the produced chipboards was investigated.

**Keywords:** Particle board, fire retardant, ammonium polyphosphate, mechanical property, limit oxygen index.

## FACTORS AFFECTING OLIVE OIL QUALITY

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### ABSTRACT

Olive oil is plant-based oil that is extracted from olive fruits without modifying its characteristics by various techniques, allowing it to be consumed in its natural state. Approximately 98% of it consists of triglycerides and free fatty acids, while 2% consists of phenolic substances, sterols, hydrocarbons, aliphatic and triterpenic alcohols, volatile compounds, and various antioxidants. Carotenes, as well as hydrophilic and lipophilic phenols, are its primary antioxidants. Due to the abundance of beneficial unsaturated fatty acids and antioxidants it contains, olive oil must be included in today's healthy diets. Its quality is greatly influenced by the maturity and harvest period of the olives used. Determining the harvest time is directly related to increasing fatty acid accumulation and oil yield. The degree of ripening is a basic parameter in determining the harvest time and is important to obtain olive oil with the appropriate phenolic structure. The oils of early harvested olives generally have higher phenolic content and higher acidity. Although it is stated that the oil quality increases in regions where the temperature difference between day and night is high, it is reported that the yield shapes the quality criteria. It has been observed that low water stress, especially in the middle of the coloration period, positively affects biochemical accumulation. Harvesting should be done in the cool hours of the day and no time should be wasted for the pressing process. Cultural practices such as balanced fertilization, the effectiveness of sunlight penetrating into the plant, and combating diseases and pests must be carried out consciously, as they have a direct impact on yield and quality. Storage methods, materials and storage times of olive oils also affect their quality. Within the scope of global climate change scenarios; It has been determined that olive oil quality may be negatively affected, and it is stated that appropriate strategic planning should be put into action without wasting time. Within the scope of global climate change scenarios; oil quality may be adversely influenced by global climate change and it is recommended that timely and suitable strategic planning should be implemented.

**Key Words:** Unsaturated fatty acids, polyphenols, global warming, quality

**DETERMINATION OF SILAGE QUALITY CHARACTERISTICS OF FEEDING PEAS AND TRITICALE SİLAGES SILOED AT DIFFERENT RATIOS UNDER ŞANLIURFA CONDITIONS**

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**ABSTRACT**

The research was conducted during the winter growing season of 2023 at the Agricultural Research and Application Area of the Faculty of Agriculture, Harran University, Osmanbey Campus, with the aim of determining the silage quality of different mixtures of feed pea and triticale grown in Şanlıurfa province. The experiment was established in accordance with a randomized complete block design with four replications. Umran Hanım triticale variety and Gap Pembesi feed pea variety were used as plant materials, and mixtures of 100:0%, 75:25%, 50:50%, 25:75% and 0:100% were aimed to determine the silage quality. As a result of the research, the silage crude ash content ranged from 6.33% to 7.45%, silage dry matter content ranged from 20.50% to 24.50%, silage pH value ranged from 3.96 to 4.07, crude protein content ranged from 8.27% to 16.54%, ADF content ranged from 27.60% to 41.30%, and NDF content ranged from 49.49% to 56.78%. In the ensiling of triticale and forage pea mixtures, the 75% Fodder pea+25% Triticale mixture can be offered as the ideal mixture, considering that there may be differences in terms of silage quality criteria.

**Keywords:** Triticale, forage pea, adf, ndf, silage

**DETERMINATION OF SILAGE QUALITY CHARACTERISTICS OF FODDER PEAS AND OATS GROWN IN ŞANLIURFA CONDITIONS BY ENSILING AT DIFFERENT RATES**

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**ABSTRACT**

In the winter cultivation season of 2019, a research was conducted at the Agricultural Research and Application Field of Harran University Faculty of Agriculture, Eyyübiye Campus, in Şanlıurfa province, using a randomized complete block design with four replications. Kosmaj forage pea variety and Küçükyayla oat variety were utilized as materials, aiming to determine the silage quality of mixtures at different ratios: 100% pea:0% oat, 75% pea:25% oat, 50% pea:50% oat, 25% pea:75% oat, and 0% pea:100% oat. As a result of the research, silage dry matter content ranged between 27.38% and 31.49%, silage pH ranged from 5.15 to 5.52, crude ash content ranged from 6.10% to 8.57%, crude protein content ranged from 14.63% to 20.59%, NDF content ranged from 46.18% to 52.71%, and ADF content ranged from 24.31% to 34.79%. Taking all these features into account, it was determined that the 50% oat + 50% forage pea mixture was the ideal mixture in terms of silage quality, with the highest DM and HP ratio and the lowest ADF and NDF ratios.

**Keywords:** Oats, feed peas, silage, ADF, NDF

**SYSTEMATIC ANALYSIS OF THESES IN THE FIELD OF SCIENCE EDUCATION  
RELATED TO EDUCATION INFORMATICS NETWORK (EBA)**

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**ABSTRACT**

This study conducted a systematic analysis of postgraduate theses and articles published in Turkey on "Science Education Related to Educational Information Network (EBA)" published in the National Thesis Centre of the Council of Higher Education (YÖK) between 2016 and 2023. The sample of the research, which was conducted using document analysis method, consists of 14 theses and 16 articles determined by criterion sampling methods. These studies were analysed according to categories such as content, distribution by years, undergraduate level, sample, data collection techniques, research design and types. The results of the analysis showed that the studies examined came from different universities, and the number of studies has increased in recent years with 8 studies in 2022 and 6 studies in 2023. In addition, it was determined that these studies used scales, interview forms and document review methods as data collection tools, and that the studies on teachers as a sample showed intensity. The research provides an important source to understand the relationship between educational information network (EBA) and science education. The systematic analysis of various aspects of the studies provides a comprehensive view to evaluate the role and effects of EBA in science education.

**Keywords:** Education Information Network (EBA), Science Education, Postgraduate Theses, Council of Higher Education (YÖK), Articles



## **THE MIDDLE EAST'S GROWING CANCER RISK: A REVIEW OF THE LITERATURE AND STRATEGIES TO ADDRESS ITS CHALLENGES**

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### **Abstract**

In this review, I did a thorough investigation of the current cancer threat in the Mid-East, which gave me a chance to mention the factors that have led to its increase, which are lifestyle and environmental causes. It also explores various strategies to address these challenges, including promoting a physically active lifestyle, offering early detection and treatment services, and enhancing cancer research in this region. Overall, integrating diagnostic techniques, improvements in infrastructure, promoting healthy lifestyle choices, research, and public awareness about cancer risk reduction in the Middle East will reduce the disease burden and improve population health outcomes. Such a multi-pronged approach will include the cooperation of various authorities, healthcare professionals, NGO's, and communities in an effort to halt the rising cancer rates across the region. The primary goal is to help people realise that prevention and early detection are essential tools in cancer care and offer them the required information to make an informed choice about their health and adopt preventive actions to reduce cancer risk. Also, allocating the budget for the research and education programmes equally will help grasp the specific cancer factors in the Middle East and therefore place emphasis on targeting some particular interventions. Combining all of the above principles can help move the population closer to the near-complete eradication of cancer and general health improvement. Aside from a healthy mentality, adopting good lifestyle choices, including regular exercise and a balanced diet, is equally important in cancer prevention. Ensuring that people have the tools of screening and treatment at their disposal by raising awareness about policy changes relates to the effectiveness of the cancer fight.

**Keywords:** Healthcare providers, policymakers, and community leaders, cancer prevention.

## EUROPEAN GREEN DEAL AND TURKIYE: OPPORTUNITIES AND CHALLENGES

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### ABSTRACT

The increase in carbon emissions that comes with industrialization has brought environmental pollution and climate crisis to a serious level and brought about economic, political and social changes in societies. The climate crisis, which has become a global issue by becoming cross-border with the increasing environmental pollution, is increasing international efforts and public awareness day by day. Considering the development levels, technological structure, economic and political imbalances of the nations in the issue determined as a global security threat, determining international common environmental policies instead of regional or local environmental policies is impressive and binding regarding the adequacy of the solution to the crisis.

In this regard, the comprehensive efforts of the European Union stand out. The European Green Deal, the EU's last transformative step regarding the environment, is the most comprehensive action plan against the climate crisis and environmental pollution. It strives to achieve global sustainable development by minimizing the climate level until 2050, based on neutralization and decarbonization (border carbon regulation), to stop climate change in many areas such as industry, construction, food and transportation, to regulate the use of resources and to ensure the transition to a circular economy. The adaptation process of Turkey, which is in the Customs Union with the European Union and a candidate country in full membership negotiations, to the European Green Deal is also important. In this context, Turkey also sets sustainable targets developed by the relevant ministries regarding the application areas of the targets determined in the European Green Deal. In the study, the steps taken by Turkey to realize green transformation in areas such as industry, trade, transportation, agriculture, finance, diplomacy, energy and production during the adaptation process to the European Green Deal, and the opportunities and challenges that may arise in its competitiveness are investigated.

This study is based on the analytical evaluation of Turkey's official action plans and concrete steps taken in the process of harmonization with the European Green Deal, from the perspective of green theory. The study reached the following findings; It has been observed that Turkey can find opportunities to increase its international competitiveness in its transition to green transformation in the fields of industry, finance, trade and diplomacy, during its adaptation to the European Green Deal. On the other hand, it has been observed that Turkey may face challenges regarding the applicability of the carbon tax regulation obligation in production and exports due to the cost increase in this process.

**Key Words:** European Green Deal, Türkiye, climate crisis, green transformation, competitiveness

**A NOVEL DEEP EUTECTIC SOLVENT-BASED LIQUID-LIQUID  
MICROEXTRACTION METHOD FOR ANALYZING NONSTEROIDAL ANTI-  
INFLAMMATORY DRUG INDOMETHACIN IN ENVIRONMENTAL WATERS**

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**ABSTRACT**

**Introduction and Purpose:** Nowadays, NSAIDs, which can be sold even without a prescription and whose consumption is increasing day by day, can pose a threat to the ecosystem and the health of living things by mixing with water resources. Therefore, the development of environmentally friendly, cost-effective, and reliable sample preparation methods based on the determination of NSAIDs is very important in terms of designing more effective strategies to minimize the negative ecological effects of these important water pollutants. In this study, a new liquid-liquid microextraction (LLME) sample preparation method based on the use of a deep eutectic solvent (Choline chloride/2-phenylethanol) was developed for the quantitative determination of indomethacin (INM) in waters.

**Materials and Methods:** DES was synthesized by mixing ChCl and 2-FEA (1:4 molar ratio) used as hydrogen bond acceptor and donor, respectively, at 80 °C with constant stirring until a homogeneous liquid was obtained. 400 µL of DES (extraction solvent), 300 µL of THF used to aggregate DES molecules and form a turbid solution at pH 6 (1.5 mL BRT buffer) were added to 10 mL of INM drug-containing solution. Samples were ultrasonicated via an ultrasonic bath for 5 min and centrifuged at 4000 rpm for 8 min to ensure separation of phases. The upper water phase was removed using a syringe, ethyl acetate was added to the DES extraction solvent and samples were analyzed at 338 nm with a UV-VIS spectrometer.

**Results:** Experimental factors such as sample pH, DES mole ratio and volume, THF volume, organic solvent type and volume, sample volume and ultrasonication time that could affect recoveries were optimized. Under optimal conditions, the method showed good linearity in the range of 0.5-5.0 µg/L with a coefficient of determination ( $R^2$ ) of 0.9991. The LOD value calculated from the blank tests based on  $3\sigma/s$  was 0.13 µg/mL. **Discussion and Conclusion:** The optimized DES-based LLME method was tested for the extraction of INM, and high recoveries were obtained in tap and well water samples (in the range of 98-101%,  $RSD \leq 5\%$ ). The findings demonstrated that the suggested method has a good potential for quantitative determination of INM in routine environmental analysis.

**Key Words:** Indomethacin; NSAIDs; Deep Eutectic Solvent; DLLME; UV-VIS Spectrophotometer

## **BIBLOMETRIC ANALYSIS OF STUDIES IN THE FIELD OF PRECONCEPTIONAL CARE AND COUNSELING**

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### **ABSTRACT**

Preconceptional health care is a service based on identifying physical, medical and psychosocial risk factors before pregnancy and addressing or referring them appropriately in order to reduce maternal-fetal mortality and morbidity. Preconceptional care includes assessment of fertility, maternal and paternal health, genetic counseling, chronic diseases and medications, sexually transmitted diseases, nutrition and body mass index, folic acid supplementation, smoking, alcohol and substance use, exposure to teratogens, immunization and mental health. With this care and counseling, it is possible to improve maternal and fetal health, provide early diagnosis and treatment, and provide women and men with lifelong positive health habits and behaviors. Nurses have the most important role and responsibility in providing preconceptional care to individuals. Nurses need to provide effective counseling services to individuals by constantly renewing their level of knowledge. It is noteworthy that studies on this subject are limited in the literature. There is no study in the literature that addresses the direction in which this care and counseling has evolved from the past to the present or in which direction the scientific publication trend is. In this study, a scientific map was created by using the scientific mapping method with the publications indexed in Scopus related to preconceptional care and counseling. After the data obtained were transferred to the Bibloshiney and VOSviewer software program, the data were divided into three periods in order to clearly see the network structures and dynamics of scientific research, and analyzes were made on the word groups created. In the Scopus database, 2000 articles from 663 sources (journals, books, etc.) between 1991 and 2023 were analyzed. The average life expectancy of each publication was found to be 9.01 years, the average citation to publications was 26.62, and the growth rate of publications was 11.14% per year. When the publication performances of the countries were examined, it was found that the USA, the United Kingdom and the Netherlands had a large number of scientific publications in this care and counseling. It was determined that the number of scientific publications originating from Turkey was only 14, and it was not included in the ranking with the highest number of publications and citations.

It can be said that there is a need for many studies in this field in order to be a guide for health professionals in Turkey's preconceptional health care, to diagnose problems in this field and to produce solutions.

**Keywords:** Preconceptional Care, Bibliometric Analysis, Nurse, Health Care, Preconceptional Counseling

## **БАСТАУЫШ СЫНЫП ОҚУШЫЛАРЫНЫҢ СӨЗДІК ҚОРЫН ДАМУЫ**

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### **Аңдатпа**

Сөздік қоры бұл – тәжірибе мен білімді жинақтап таратудың аса маңызды әдісі, күрес пен қоғам дамуының айбынды құралы. Ойлау өзінің заңдары мен формалары жағынан жалпы адамзаттық болса, ал тіл өзінің лексикасы мен грамматикалық құрылымы жағынан ұлттық, халықтық нәрсе болып табылады. Тіл дербестенген және объектілендірілген рухани болмыстардың бірлігі болып табылады. Тіл арқылы сана қызметінің сыртқы, объективтенген нәтижелері, үзінді түріндегі процестері көрініс алады.

Бұл сөз кез келген тілдің қайталанатын және мағыналы бірлігі ретінде әрекет етеді. Сөздердің арқасында адамның айналасындағы әлемнің ұғымдарын, құбылыстарын анықтауға, іс-әрекеттерді, қасиеттерді, сезімдер мен эмоцияларды сипаттауға мүмкіндік береді. Сөздердің көмегімен фразалар мен сөйлемдер, содан кейін адамдар арасында ой алмасу үшін мәтіндер жасалады. Әр сөздің өзіндік мағынасы бар, ол оған бекітіліп, осы тілдің ана тілінде сақталады. Тілдегі сөздердің жиынтығы лексика (лексика) деп аталады. Тілдің сөздік құрамын белгілеу үшін "лексика" ұғымы қолданылады. Бұл ұғым белгілі бір адам немесе адамдар тобы білетін сөздердің, тілдің немесе сөздердің жиынтығын білдіреді. Мұның бәрі сөздер бір-бірімен әртүрлі қатынастармен байланысқан және күрделі тұтас тілдің лексикалық жүйесінің бөлшегі ретінде әрекет ететін жүйе.

Сөздік қорын кеңейту процесінде сандық және сапалық жағы ерекшеленеді. Л.С.Выготскийдің пікірінше, балаларды оқыту процесінде сөздердің мағынасының сапалы жағын қалыптастыру ерекше қиындық тудырады. Сөздік қорының көлемі баланың үйлесімді диалогтық және монологиялық сөйлеуді қалыптастыру процесінде сөйлеу дағдысын игеруіне әсер етеді.

Сөздік қорын қалыптастыру және дамыту баланы ерте жастан бастап тәрбиелеуде маңызды болып табылады, бұл балаға айналасындағы адамдармен қарым-қатынас жасауға мүмкіндік береді. Бала өсіп келе жатқанда, айналадағы шындық құбылыстарымен танысады, заттардың сапасын, жануарлардың, құстардың, адамдардың іс-әрекеттерінің ерекшеліктерін талдайды оның сөздік қоры кеңейеді. Қазіргі педагогикалық әдістемеді сөздік жұмыс ана тілінің сөздік құрамын тиімді меңгеруді қамтамасыз ететін мақсатты педагогикалық іс-әрекет ретінде қарастырылады Сөздердің дамуы бұл халық жинаған сөздік қорын игерудің ұзақ процесі.