

**12th INTERNATIONAL MARDIN ARTUKLU  
SCIENTIFIC RESEARCHES CONFERENCE**

**August 17-19, 2024 / Mardin, Turkiye**



**Abstracts Book**

**Editors**

**Assoc. Prof. Dr. Naseem AKHTER**

**Gulnaz GAFUROVA**

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**ABSTRACTS BOOK**

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**Assoc. Prof. Dr. Naseem AKHTER**

**Gulnaz GAFUROVA**

**by**

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## **CONFERENCE ID**

**12th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES  
CONFERENCE**

## **DATE and PLACE**

**August 17-19, 2024 / Mardin, Turkiye**

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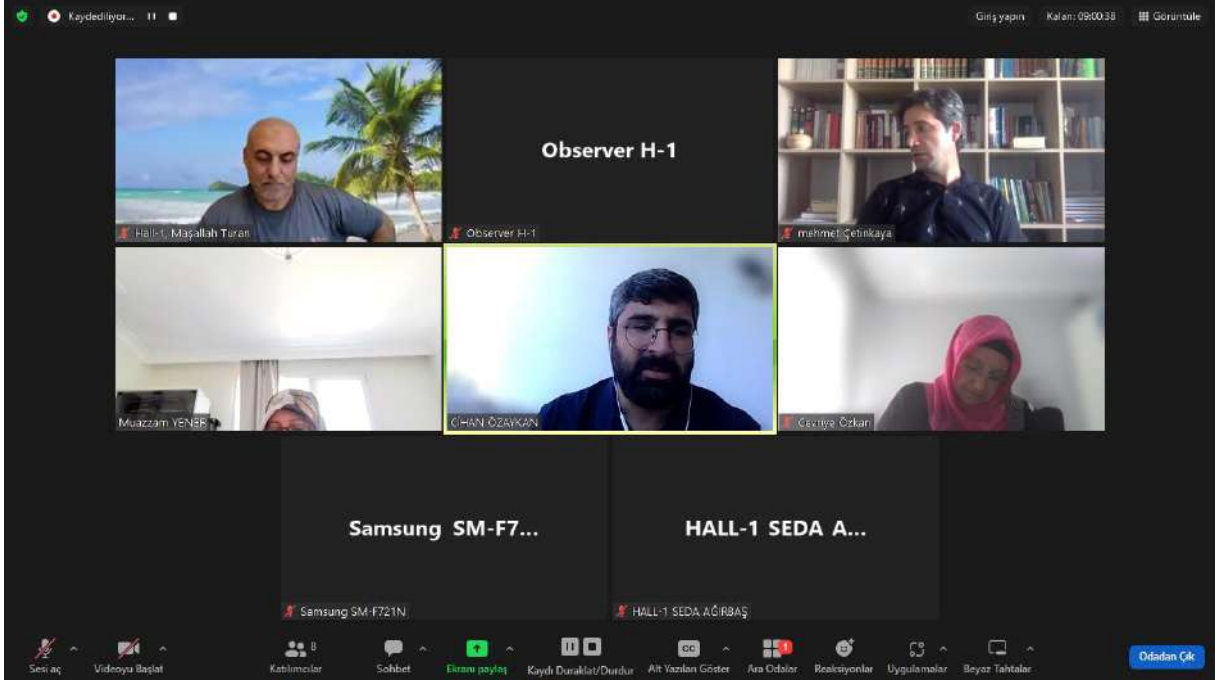
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# PHOTO GALLERY

The image displays two screenshots of a Zoom meeting interface. The top screenshot shows a meeting with 11 participants. The grid includes video feeds for Fezza ÇOKDEVİR HALL-1, Observer H-1, H1/S/1- Dr.Ümit Doğan, Hall 1 Esmenur Kara, Bengi Sohyel, tuba yilmazok, Esra Nafin Güven hall 1, Beyma TEKELOĞLU, Mehmet Emin Usta Sileli, Hall 1- Hülya Tuncer, and Sümeyye ÖCAL DÖRTERLER. The bottom screenshot shows a meeting with 8 participants. The grid includes video feeds for Halkın Masgaliş Turan, Observer H-1, Kaşyay Özian, mahmet Çetinkaya, Dülberahim SAYLAN, EDHAN ÖZAYKAN, Muazzam YENER, and Samsung SM-F721N. Both screenshots show a control bar at the bottom with icons for audio, video, chat, and other meeting functions.

# PHOTO GALLERY



## PHOTO GALLERY

Kayıtlı İyler... Kalan: 07:02:53

### BULGULAR VE TARTIŞMA ÇEKME DENEYİ

Numune Numarası	Çekme (N/mm <sup>2</sup> )	Dayımı	Uzama (%)
1	281,6044		25,722
2	286,9626		20,117

Standard force [MPa] vs Strain [%]

Çekme deneyi sonuçları incelendiğinde 1mA'da yapılan TIG kaynağı işleminde en iyi çekme dayımlu numunede (5083\*5083 alüminyum plakalar ve 5356 kaynak teli uygulaması) oluşmuştur. Uzama değerleri ise en yüksek 1 nolu numunede (5083\*5083 kaynak plakaları ve 5183 kaynak teli uygulaması) oluşmuştur.

Zoom Workplace Konferans - Hall-5 Giriş Zamanı: 09:54:26

Observer Hall 5

Nouhaila Ben ko...

Uçastnik (3)

- OH Observer ... (Сосрание топ...
- HB Nouhaila Ben ko...
- S1 Session 1 Hall 5 Fedi BEN DHAGU

Zoom Meeting Controls: Звук, Видео, Участники, Чат, Отреагировать, Поделиться, Приложения, Пауза/остановить запись, Сессия на паузе, Дополнительно, Выйти из зала

Windows Taskbar: Поиск, 32°C Sunny, 12:04, 17/08/2024



# PHOTO GALLERY

The image shows two screenshots of a Zoom meeting. Both screenshots display a presentation slide for the 12th International Mardin Artuklu Scientific Researches Conference. The top screenshot shows a presentation titled "Understanding Asthma in Rural Populations: Impact and Management challenges" by Fedi Ben Dhaou, Rim Khemakhem, Rahma Gargouri, Mohamed Douzi, Houssem Eddine Htriouech, Samira Jerbi, and Bassem Abid. The bottom screenshot shows a presentation titled "Factors Associated with Postpartum Depression: about 59 cases" by Dalia Elloumi, Fedi Ben Dhaou, Lobna Zouari, Yosr Gargouri, Hana Henteti, and Bassem Abid. Both presentations list affiliations with the Higher Institute of Nursing Sciences and the Department of Psychiatry at Hedi Chaker University Hospital in Sfax, Tunisia. The Zoom interface includes a top bar with the meeting name "Экран (Session 1 Hall 5 Feb B2)", a participant list on the right, and a bottom toolbar with various controls like mute, video, chat, and screen sharing. The system tray at the bottom shows the date as 12.06.2024 and the time as 12:09.

**12<sup>th</sup> INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE**

**Understanding Asthma in Rural Populations: Impact and Management challenges**

Fedi Ben Dhaou <sup>1</sup>, Rim Khemakhem <sup>2</sup>, Rahma Gargouri <sup>2</sup>, Mohamed Douzi <sup>1</sup>, Houssem Eddine Htriouech <sup>1</sup>, Samira Jerbi <sup>1</sup>, Bassem Abid <sup>1</sup>

1. Higher Institute of Nursing Sciences, Sfax, Tunisia
2. Pneumology Department Hédi Chaker University Hospital, Sfax, Tunisia

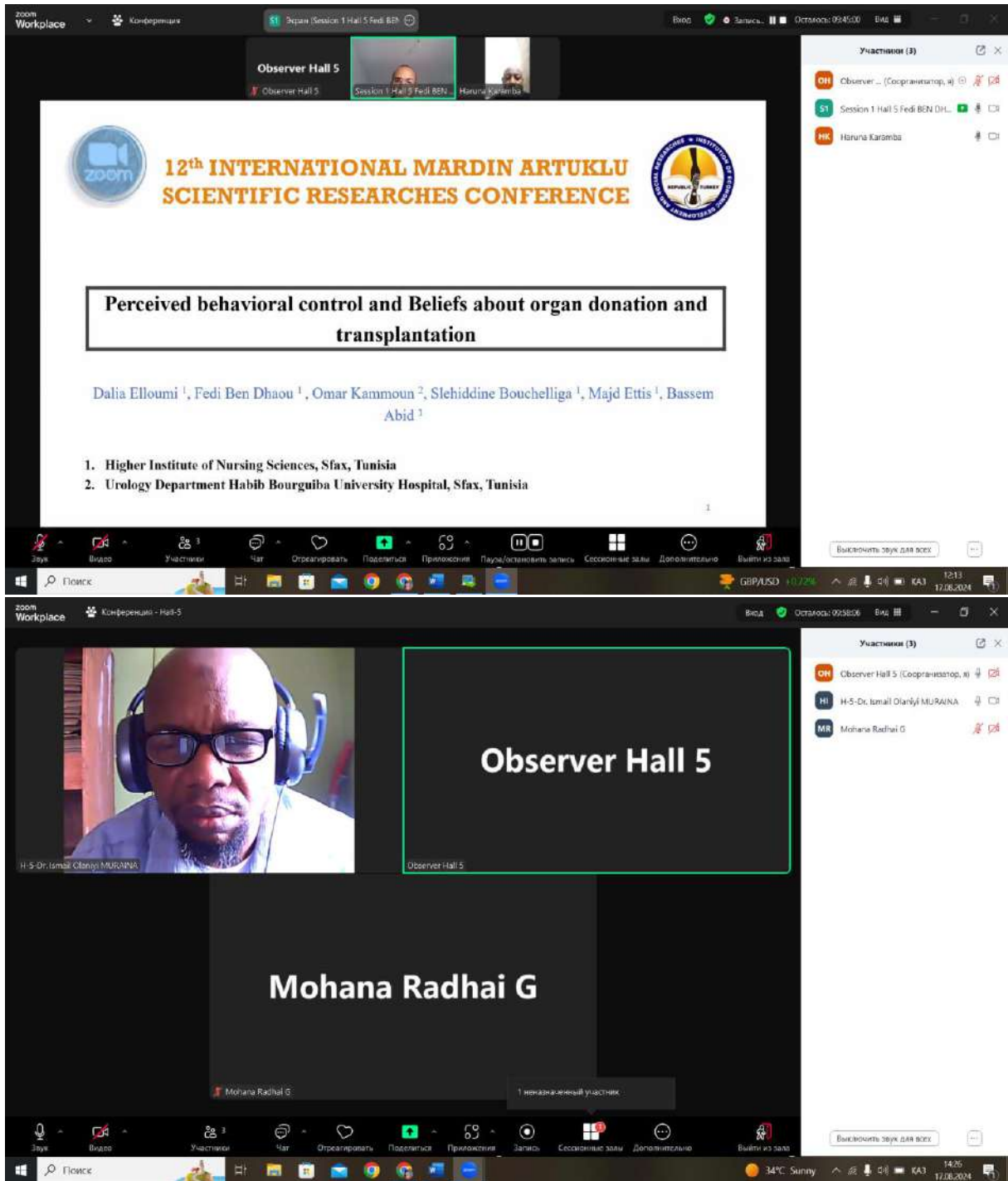
**12<sup>th</sup> INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE**

**Factors Associated with Postpartum Depression: about 59 cases**

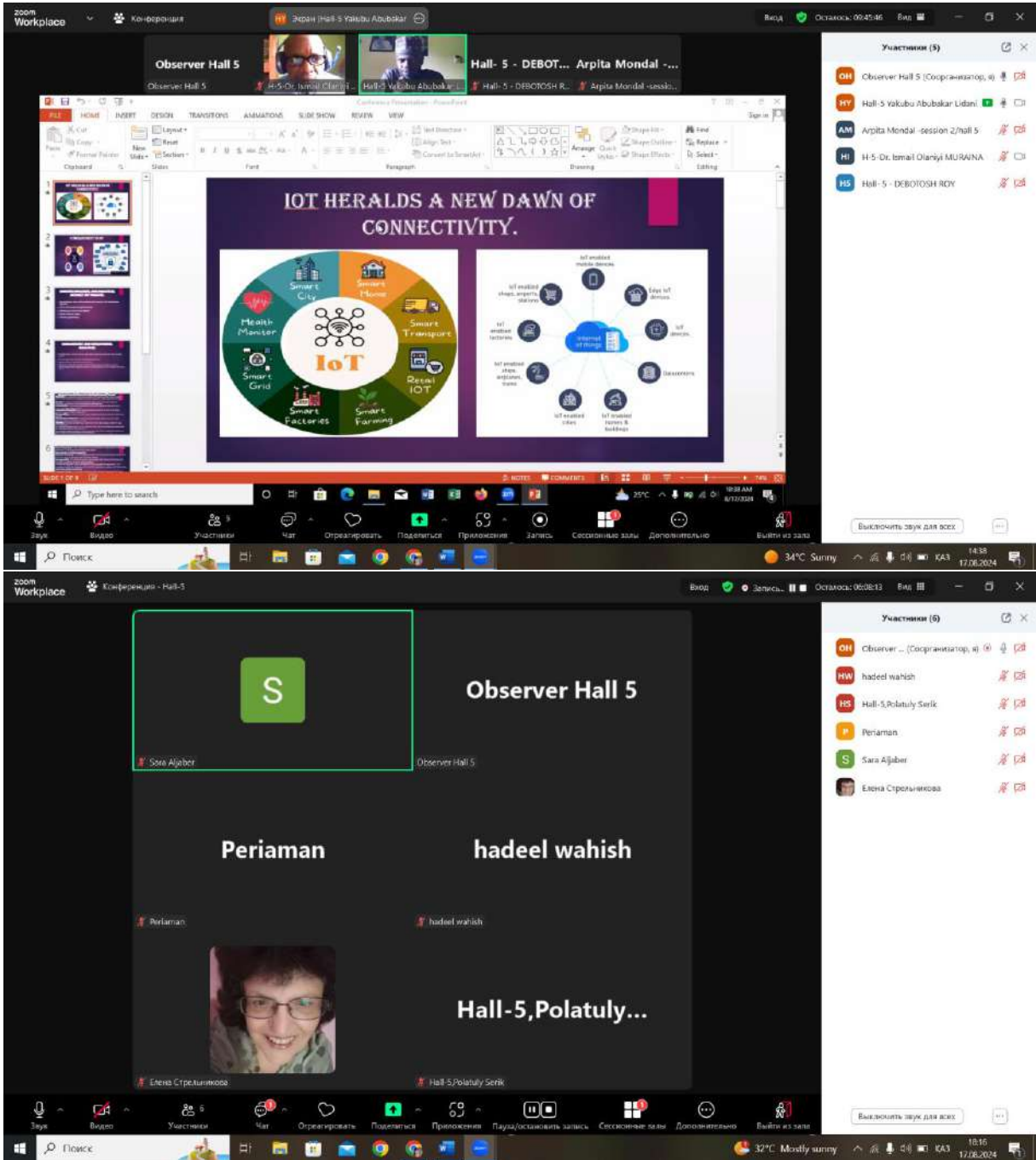
Dalia Elloumi <sup>1</sup>, Fedi Ben Dhaou <sup>1</sup>, Lobna Zouari <sup>2</sup>, Yosr Gargouri <sup>1</sup>, Hana Henteti <sup>1</sup>, Bassem Abid <sup>1</sup>

1. Higher Institute of Nursing Sciences, Sfax, Tunisia
2. Department of Psychiatry Hedi Chaker University Hospital, Sfax, Tunisia

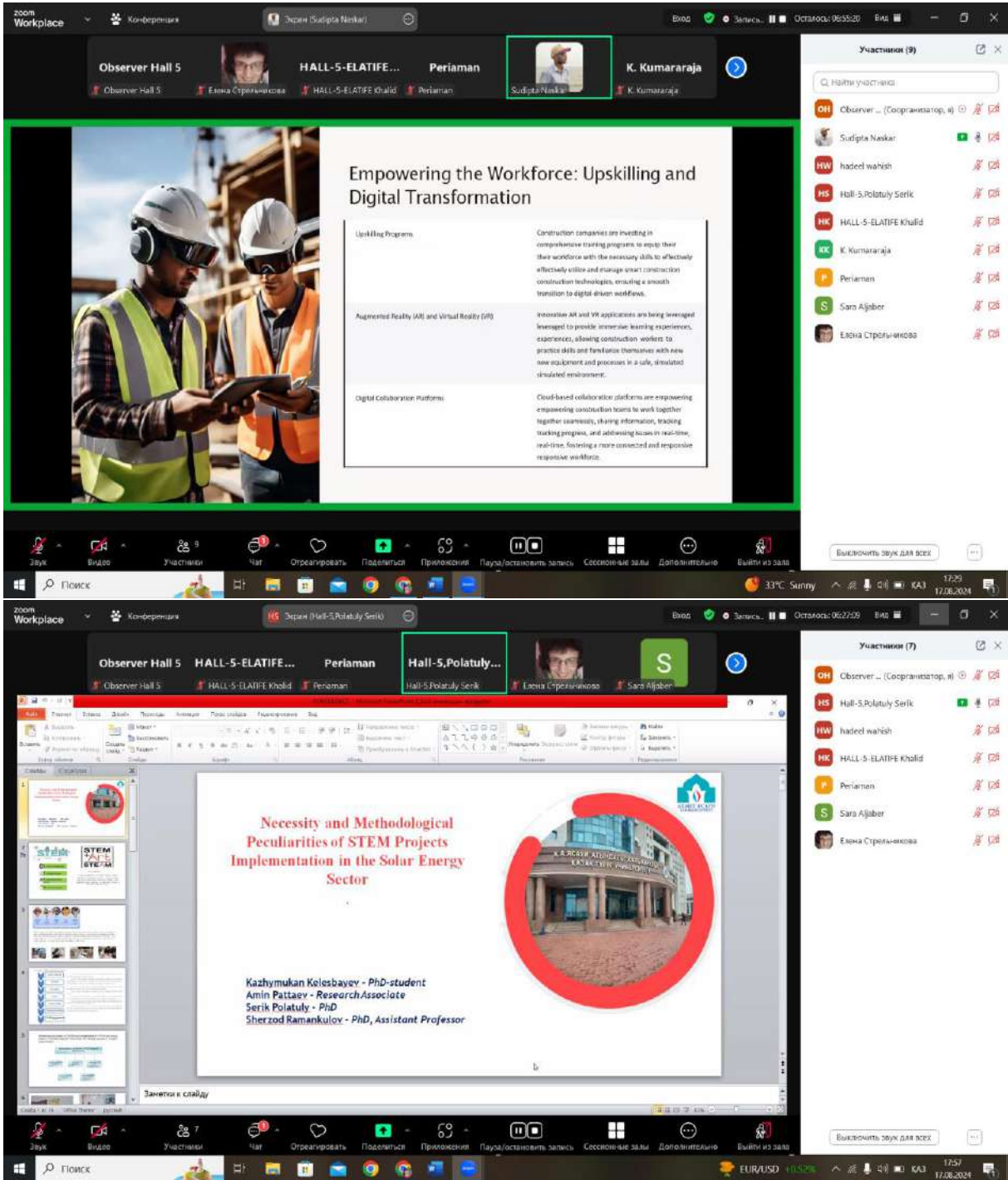
# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY

The image displays two screenshots of a Zoom meeting interface, showing a photo gallery of participants. The top screenshot shows a meeting titled "Zoom Toplantı - Hall-3" with a duration of 09:20:10. The meeting is recorded. The gallery shows five participants: Dr. Fidan ALHAS, Observer Hall 3, Emre AKTÜRK, Ragıp Ergün, and Dr. Öğr. Üyesi Aziz COŞKUN. The bottom screenshot shows the same meeting at 08:24:46, with the gallery updated to show six participants: Dr. Fidan ALHAS, Observer Hall 3, Emre AKTÜRK, Dr. Öğr. Üyesi Aziz COŞKUN, bÜke koyuncu, and Ragıp Ergün. The Zoom interface includes a toolbar with options like "Sesi aç", "Videoyu Başlat", "Katılımcılar", "Sohbet", "Ekranı paylaş", "Reaksiyonlar", "Uygulamalar", "Beyaz Tahtalar", and "Daha fazla". The system tray shows the date 17.08.2024 and time 10:43 for the top screenshot and 11:38 for the bottom screenshot.

# PHOTO GALLERY

Zoom Toplantı - Hall-3

Kaydediliyor...

Giriş yapın Kalan: 09:52:59 Görüntüle

Observer Hall 3

Hall-3, İbrahim Halil POLAT

Observer Hall 3

HALL-3, ASLI KARATAŞ

Uğur Tülü

Meltem Erdil

Alperen AĞCA

gamze

HALL-3 Hayriye Okutan

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

12:36 17.08.2024

Zoom Toplantı - Hall-3

Kaydediliyor...

Giriş yapın Kalan: 09:04:47 Görüntüle

Observer Hall 3

Hall-3, İbrahim Halil POLAT

Observer Hall 3

HALL-3, ASLI KARATAŞ

Uğur Tülü

Alperen AĞCA

HALL-3 Hayriye Okutan

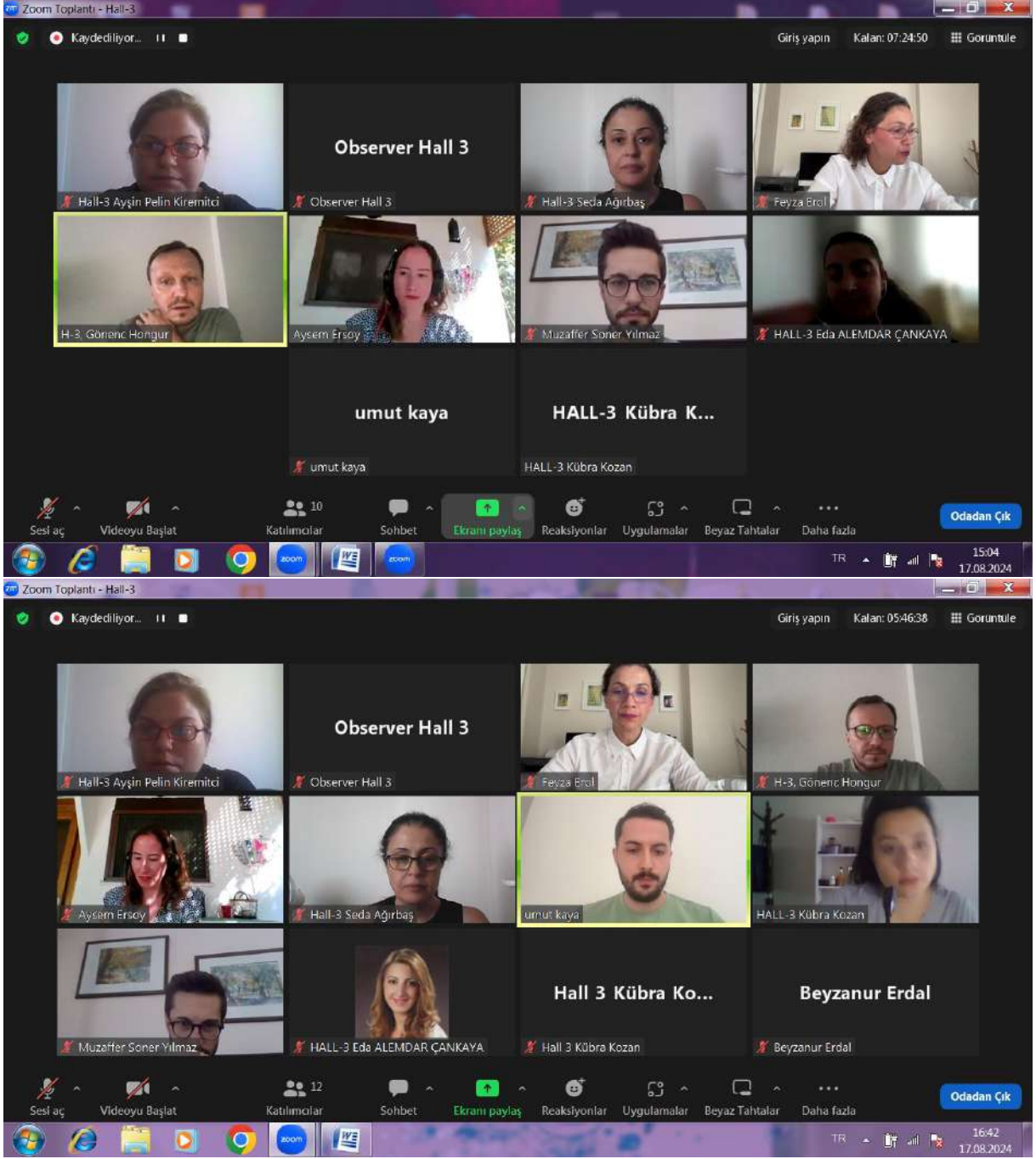
feyzullah nazari

gamze

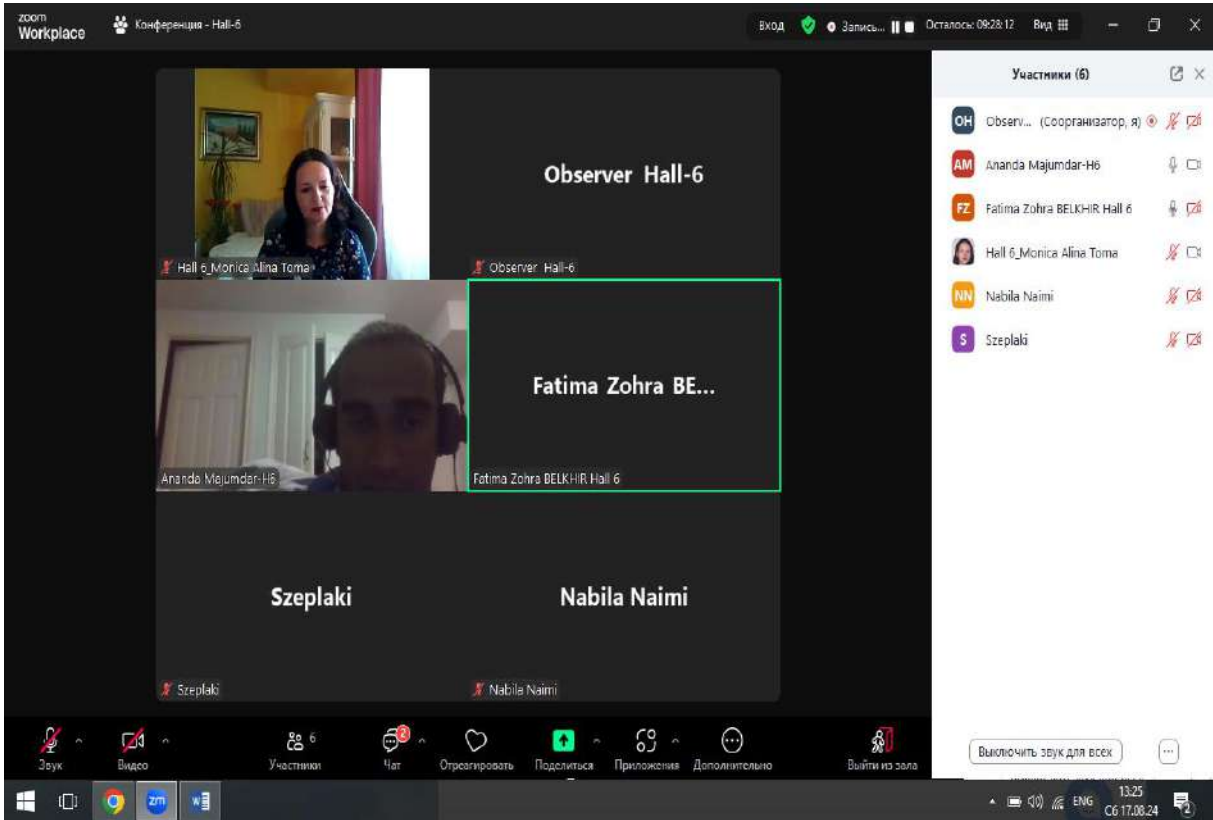
Sesi aç Videoyu Başlat Katılımlar Sohbet Ekranı paylaş Reaksiyonlar Uygulamalar Beyaz Tahtalar Daha fazla Odadan Çık

13:24 17.08.2024

# PHOTO GALLERY



# PHOTO GALLERY





# PHOTO GALLERY

Zoom Workplace | Конференция | Экран (Ananda Majumdar-H6) | ВХОД | Залпись... | Осталось: 08:47:39 | Вид | - | X

Observer Hall-6 | Ananda Majum... | Fatima Zohra BE... | Hall - 6 Bello M...

Observer Hall-6 | Hall 6 Monica Alina Toma | Ananda Majumdar-H6 | Fatima Zohra BELKHIR H... | Hall - 6 Bello Malik P...

12TH INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE AUGUST 17-19, 2024

CHESS AS AN EDUCATIONAL SKILL IN COURTY CULTURE IN MEDIEVAL

2 неактивных участника

Участники (6)

- OH Observ... (Соорганизатор, я)
- AM Ananda Majumdar-H6
- H- Hall - 6 Bello Malik Pelumi
- Hall 6 Monica Alina Toma
- S Szeplaki
- FZ Fatima Zohra BELKHIR Hall 6

Звук | Видео | Участники | Чат | Отреагировать | Поделиться | Приложения | Дополнительно | Выйти из зала

Выключить звук для всех

13:06 | ENG | Сб 17.08.24

Zoom Workplace | Конференция | Экран (Dr.Azamat Akbarov) | ВХОД | Залпись... | Осталось: 08:58:03 | Вид | - | X

Observer Hall-6 | Ananda Majumdar-H6 | Dr.Azamat Akbarov | Nabila Naimi | Hall 6 Monica Alina T...

Observer Hall-6 | Ananda Majumdar-H6 | Dr.Azamat Akbarov | Nabila Naimi | Hall 6 Monica Alina T...

ЧЕТ ТИЛИНИ ҲҚИТИШДАГИ ЁНДАШУВ ВА УСУЛЛАР: назариядан қўнмимагача

АЗМАТ АҚБАРОВ ШИЖИҲ УТАСҚИНОВ

Участники (6)

- OH Observ... (Соорганизатор, я)
- Dr.Azamat Akbarov
- AM Ananda Majumdar-H6
- H6 Hall 6- Bello Malik Pelumi
- Hall 6 Monica Alina Toma
- NN Nabila Naimi

Звук | Видео | Участники | Чат | Отреагировать | Поделиться | Приложения | Дополнительно | Выйти из зала

Выключить звук для всех

13:56 | ENG | Сб 17.08.24

# PHOTO GALLERY

The image shows two screenshots of a Zoom meeting. The top screenshot shows a gallery view of participants: Dr. Azamat Akbarov, Ananda Majumdar-H6, Nabila Naimi, and Fatima Zohra BELKHIR Hall 6. A participant named Bello Malik is highlighted with a green box, showing a pink square with the letter 'B'. The bottom screenshot shows a presentation slide titled "12th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE". The slide content is as follows:

**SUBJECT:**  
**Reduction of Crystal Violet Dye from Water by Nanostructured Carbon: Influencing Factors and Adsorption**

Amel RIAH<sup>1</sup>, Salim BOUSBA<sup>1</sup>, Dhirar BEN SALEM<sup>2</sup>

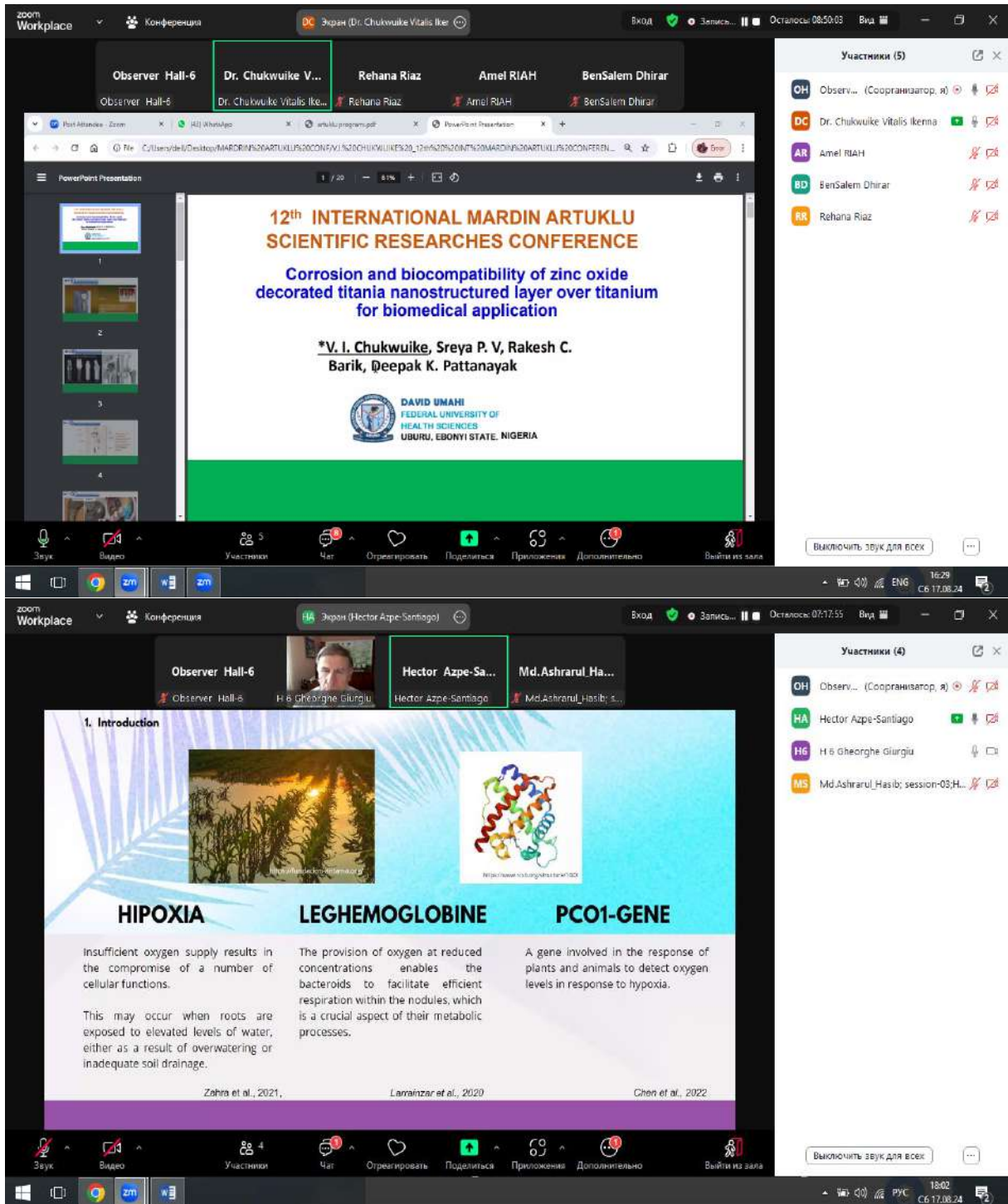
<sup>1</sup> University of Constantine 03 Saleh Boubnider, Department of Chemical Engineering, Constantine, Algeria

<sup>2</sup> Research Laboratory in Subterranean and Surface Hydraulics, University of Biskra, PO Box 145, Biskra 07000, Algeria.

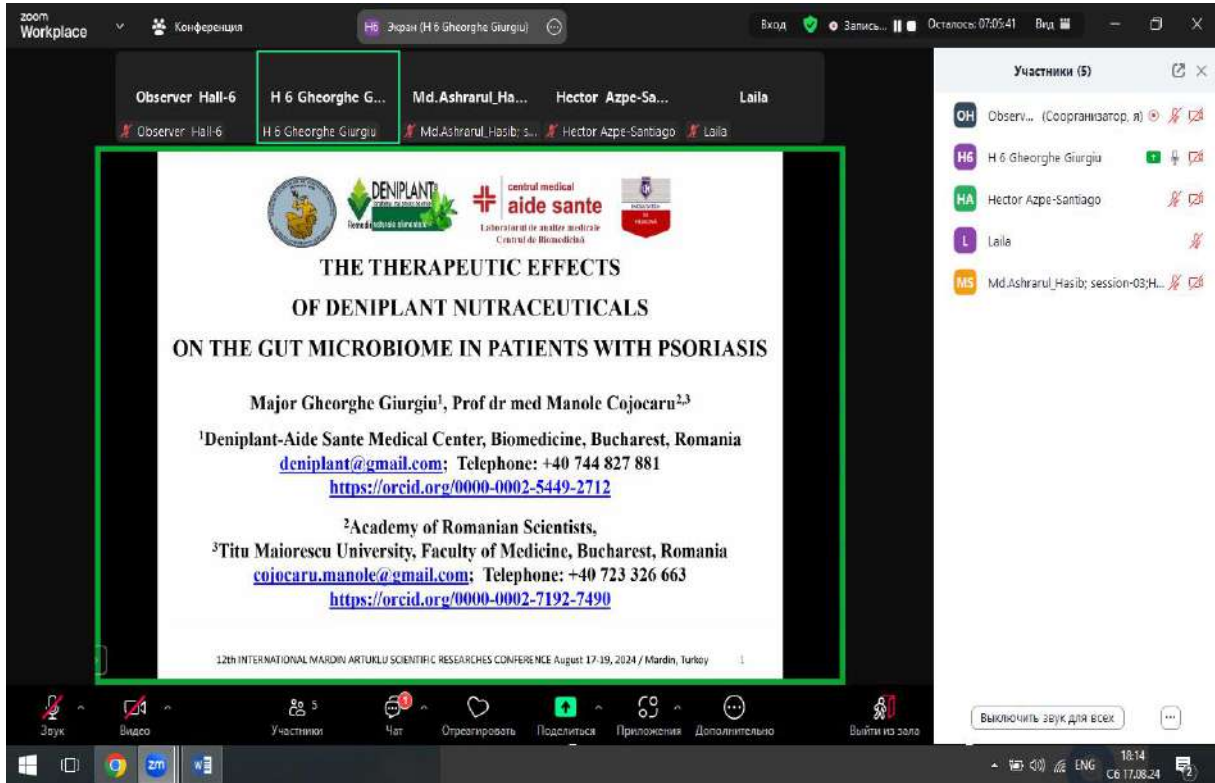
[amel.riah@univ-constantine3.dz](mailto:amel.riah@univ-constantine3.dz) (Corresponding

1 не назначенный участник

# PHOTO GALLERY



# PHOTO GALLERY



## PHOTO GALLERY

observer hall 2

observer hall 2. SUHA YILMAZ

Hall-2, Narmin Sağdıçlı

Nevra KARACA BİÇAKCI

Cemre Candemir

HALL-2 - Hasan GÖKÇE

amulicongress

Record Present in Teams Share

File Home Insert Draw Design Transitions Animations

Clipboard Font Paragraph Drawing Editing Voice

1

2

3

4

COMPARATIVE ANALYSIS OF BRAIN GRAPH METRICS IN YOUNG AND OLDER ADULTS

Dr. Cemre CANDEMİR  
Ege University

12th International Mardin Artuklu Scientific Researches Conference  
17 - 19 August 2024, Mardin

observer hall 2

observer hall 2. SUHA YILMAZ

Nevra KARACA BİÇAKCI

Buse Gizem Yitmez

HALL 2/ DİLEK... ÇELİMLİ

Cemre Candemir

Buse Gizem Yitmez adlı kişinin el...

Kalan: 09:03:46

Toplantı

observer hall 2

observer hall 2

SUHA YILMAZ

Nevra KARACA BİÇAKCI

Buse Gizem Yitmez

HALL 2/ DİLEK... ÇELİMLİ

Cemre Candemir

İLKÖĞRETİM MATEMATİK  
ÖĞRETMENİ ADAYLARININ  
TEKNOLOJİ DESTEKLİ  
DİKDÖRTGEN İNŞA SÜRECİNDE  
ORTAKLAŞA ARGÜMANTASYON  
SÜREÇLERİNİN İNCELENMESİ

Doktora Öğrencisi Buse Gizem YİTMEZ\*

Doç. Dr. Ayşe TEKİN DEDE

Prof. Dr. Süha YILMAZ

## PHOTO GALLERY

Toplantı

buşra günkaya adlı kişinin ekranı

Kaydediliyor... Kalan: 08:47:06 Görüntüle

observer hall 2

SUHA YILMAZ

buşra günkaya

Buse Gizem Yılmaz

HALL 2/ DİLEK... Cemre Candemir

HALL 2/ DİLEK ÇELİMLİ

Cemre Candemir

A META-SYNTHESIS STUDY ON MATHEMATICS EDUCATION RESEARCH CONDUCTED WITH VISUALLY IMPAIRED INDIVIDUALS IN TURKEY IN THE LAST 10 YEARS

TÜRKİYE'DE GÖRME YETERSİZLİĞİ BULUNAN BİREYLERLE SON 10 YILDA YÜRÜTÜLEN MATEMATİK EĞİTİMİ ARAŞTIRMALARINA İLİŞKİN BİR META-SENTEZ ÇALIŞMASI

Matematik ve Fen Bilimleri Eğitimi Anabilim Dalı İlköğretim Matematik Öğretmenliği  
Büşra GÜNKAYA  
Prof. Dr. Süha YILMAZ

Windows'u Etkinleştir  
Windows'a etkinleştirmek için Ayarlar'a gidin

Toplantı

Hall-2, Hagar AliLabib adlı kişni

Kaydediliyor... Kalan: 09:54:07 Görüntüle

observer hall 2

H-2, Ahmet Niyazi Özer

Hall-2, Hagar AliLabib

HALL-2, Ayşe ÇELİK

Hall-2, Alparslan YUVA...

Ahmet BOZ

carva.com

File: Resize & Magic Switch

Green And White Modern Green Ener...

Get another...

15:00

Share

Position

Design

Elements

Text

Brand

Uploads

Draw

Projects

BAHCESEHIR UNIVERSITY  
GRADUATE SCHOOL OF EDUCATION  
DEPARTMENT OF GRADUATE SCHOOL OF NATURAL SCIENCES  
INDUSTRIAL ENGINEERING AND CONSTRUCTION MANAGEMENT

COMPARISON OF CRYPTOCURRENCIES AND SUSTAINABLE ENERGY AS INVESTMENT OPPORTUNITIES.

12. ULUSLARARASI  
MARDİN ARTUKLU  
BİLİMSEL ARAŞTIRMALAR KONGRESİ  
17-19 Ağustos 2024, Mardin

HAGAR LABIB

## PHOTO GALLERY

The screenshot shows a Zoom meeting interface with a PowerPoint presentation. The presentation title is "Finansal Aracı Kurum Kavramı". The slide content is as follows:

- Sermaye Piyasası Kanunu'na göre aracı kurum; "Kanun'un 37. maddenin birinci fıkrasındaki yatırım hizmet ve faaliyetlerinden (a), (b), (c), (e) ve (f) bentlerinde yer alanları münhasıran olmak üzere Kurul tarafından yetkilendirilen yatırım kuruluşudur (6362 Sayılı Sermaye Piyasası Kanunu, madde 3).
- Bu maddeler uyarınca aracı kurumlar sermaye piyasası araçlarıyla ilgili emirlerin alınması ve iletilmesi, sermaye piyasası araçlarıyla ilgili emirlerin müşteri adına ve hesabına veya kendi adına ve müşteri hesabına gerçekleştirilmesi, sermaye piyasası araçlarının kendi hesabından alım ve satımı, araçlarının halka arzında yüklenimde bulunularak satışa aracılık edilmesi ve son olarak sermaye piyasası araçlarının halka arzında yüklenimde bulunmaksızın satışa aracılık edilmesi faaliyetlerini gerçekleştirir. (6362 Sayılı Sermaye Piyasası Kanunu, madde 37).

The screenshot shows a Zoom meeting interface with a PowerPoint presentation. The presentation title is "12. ULUSLARARASI MARDİN ARTUKLU BİLİMSEL ARAŞTIRMALAR KONGRESİ 17-19 Ağustos 2024". The slide content is as follows:

### Climate-Smart Fertilizations Practices: Enhancing Resilience and Sustainability in Agriculture

Dr. Öğr. Üyesi Seçil KÜÇÜK KAYA  
Aydın Adnan Menderes Üniversitesi Ziraat Fakültesi Toprak Bilimi ve Bitki Besleme Bölümü

Dr. Hatice Kübra GÖREN  
Aydın Adnan Menderes Üniversitesi Ziraat Fakültesi Tarla Bitkileri Bölümü

Dr. Uğur TAN  
Aydın Adnan Menderes Üniversitesi Ziraat Fakültesi Tarla Bitkileri Bölümü

## PHOTO GALLERY

Toplantı HN Hall-2, Nesriçan KODAN adlı kişi Kaydediliyor... Kalan: 07:01:20 Görüntüle

observer hall 2 Hall-2, seçil küç... Hall-2, seçil küçük kaya Hall-2, Muhyettin Şentürk

SPİRULİNA'NIN KANATLI YEMLERİNDE KULLANIMI - PowerPoint

Dosya Giriş Üst Tasarım Geçişler Animasyonlar Slayt Gösterme Kaydet Gözetim Gözetim Yedekleme Ne yapmayı istediğinizi söyleyin

Yeni Slayt Bölüm Slaytlar Yazı Tipi Paragraf Yerleştir Çizim Bul Değiştir Seç Düzenle Ekleniler

1 2 3 4 5 6



**SPİRULİNA'NIN  
(ARTHROSPİRA PLATENSİS)  
KANATLI YEMLERİNDE  
KULLANIMI**

NESRİÇAN KODAN  
DANIŞMAN: Dr. Öğr. Üyesi MEHMET  
IRMAK

Toplantı HB HALL-2 Ece GENÇ adlı kişinin ekranı Kaydediliyor... Kalan: 06:46:12 Görüntüle

observer hall 2 Sesi aç Hall-2, seçil küç... Hall-2, seçil küçük kaya Hall-2-F. Şenay DEMİR...

**12. ULUSLARARASI MARDİN ARTUKLU BİLİMSEL ARAŞTIRMALAR  
KONGRESİ**

**MERSİN/YENİŞEHİR İLÇESİ PEYZAJ BİTKİLERİNDE KLOROFİL MİKTARININ TAYİNİ VE  
KARBONDİOKSİT (CO<sub>2</sub>) EMİSYONUNUN AZALTI MASINA ETKİSİ**

**DETERMINATION OF CHLOROPHYLL AMOUNT IN LANDSCAPE PLANTS OF  
MERSİN\YENİSEHIR DISTRICT AND ITS EFFECT ON THE REDUCTION OF CARBON DIOXIDE  
(CO<sub>2</sub>) EMISSIONS**

Ece GENÇ  
Muhyettin ŞENTÜRK  
RIZA BİNZET

Mersin Üniversitesi Fen Fakültesi Biyoloji Anabilim Dalı



## PHOTO GALLERY

Toplantı aysye baran adlı kişinin ekranı Kaydediliyor... Kalan: 05:44:30 Görüntüle

observer hall 2 HALL-2/ Ece GENİÇ aysye baran HALL-2/Dr. Havva Mer... Seda Kurgun Aktar TECNO CAMON 12

özür - PowerPoint Oturum açın

Dosya Giriş Ekle Tasarım Geçişler Animasyonlar Slayt Gösterisi Kaydet Gözden Geçir Görünüm Yardım Ne yapmak istediğinizi söyleyin

Yapıştır Pano Yeni Slayt Düzen Sürükle Bölüm Yazı Tipi Paragraf Çizim Yerleştir Hattı Söyler Şekil Etkileri Bul Değiştir Seç Ekleniler Ekleniler

12<sup>th</sup> INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE

**Methanolic extracts of "Crataegus monogyna, Malus sylvestris and Pistacia vera I." have a cell migration effect**

**Crataegus monogyna, Malus sylvestris ve Pistacia vera I." metanolik ekstratlarının hücre göçü etkisi**

**Dr. Öğr. Üyesi Polat İPEK<sup>1</sup>, Dr. Ayşe BARAN<sup>2</sup>**

<sup>1</sup> Dicle Üniversitesi Veteriner Fakültesi, Diyarbakır

<sup>2</sup> Mardin Artuklu Üniversitesi, Lisansüstü Eğitim Enstitüsü, Biyoloji Bölümü, Mardin, Türkiye

Toplantı Hall 2-F. Şenay DEMİREL YEŞİLİM Kaydediliyor... Kalan: 05:16:51 Görüntüle

observer hall 2 Ses aç HALL-2 Ayçin Akaral Hall 2-F. Şenay DEMİREL... HALL-2/Dr. Havva Mer... aysye baran Seda Kurgun Aktar

TARIMDA UZAKTAN ALGILAMA VE COĞRAFİ BİLGİ SİSTEMİ TEKNİKLERİNİN KULLANIM OLANAKLARI

POSSIBILITIES OF USING REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM TECHNIQUES IN AGRICULTURE

Öğr. Gör. Fatma Şenay DEMİREL YEŞİLMEŞE

# PHOTO GALLERY

Kaydediliyor... 11

Hall 1-Emine Baydan ekranını görüntüleyorsunuz Seçenekleri Gözetle


Giriş yapın Kalan: 09:40:46 Görüntüle

## URBINAT - SAĞLIK KORİDORLARI

Her URBINAT Sağlıklı Koridoru, proje ortakları tarafından geliştirilen çeşitli doğa temelli çözümleri entegre eder ve bağlantı kurar. Bu, URBINAT NBS Kataloğunda yer alan doğa temelli çözümler ve uygun izleme ve değerlendirme yöntemleri ve araçları kullanılarak gerçekleştirilir.

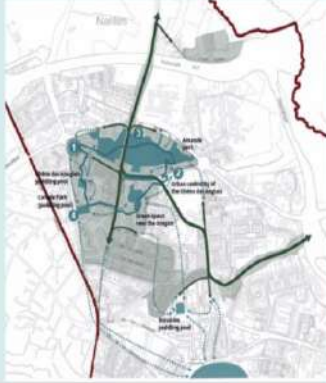
### PORTO

In-between neighbourhoods




### NANTES

Around neighbourhoods



### SOFIA

Across neighbourhoods



URBINAT tarafından tanımlanan Sağlık Koridoru; mahalleleri birbirine bağlayan ve sadece doğa temelli çözümleri değil, aynı zamanda **insan odaklı çözümleri** de entegre eden bir yol biçiminde bir kamusal alanıdır.

Sesi aç Videoyu Başlat Katılımcılar 10 Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

Observer H-1

Observer H-1



Hall 1-Emine Baydan




H-1 İsmail Akçay




Kaydediliyor... 11


Giriş yapın Kalan: 09:35:15 Görüntüle




Hall 1-Emine Baydan




Observer H-1




H-1 İsmail Akçay




HALL-1 Dilan ÇOBAN




Hüseyin Şanan




Hüseyin Çuha




hall 1 Medine Çelik



Fatma Tunçay



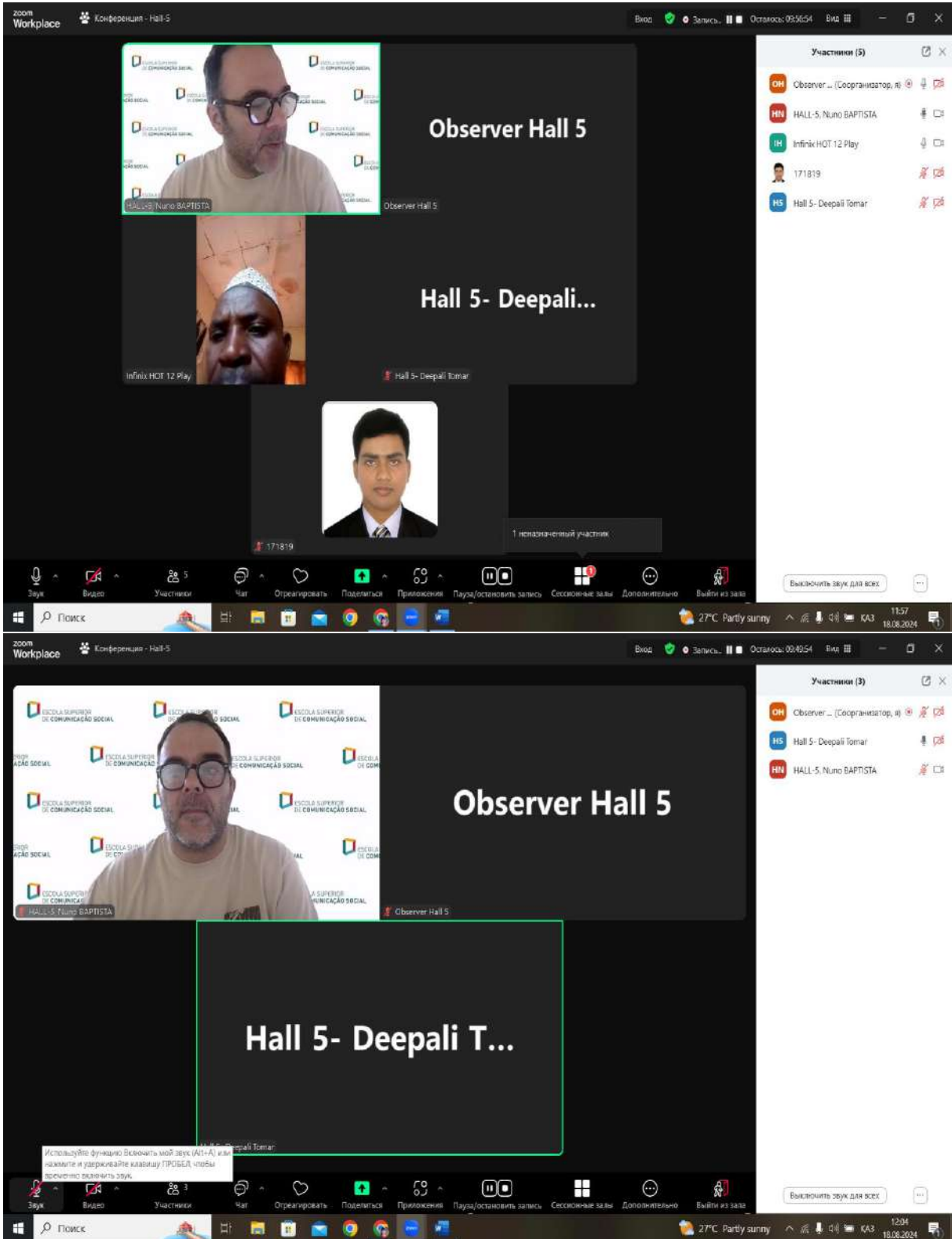
hasan yılmaz



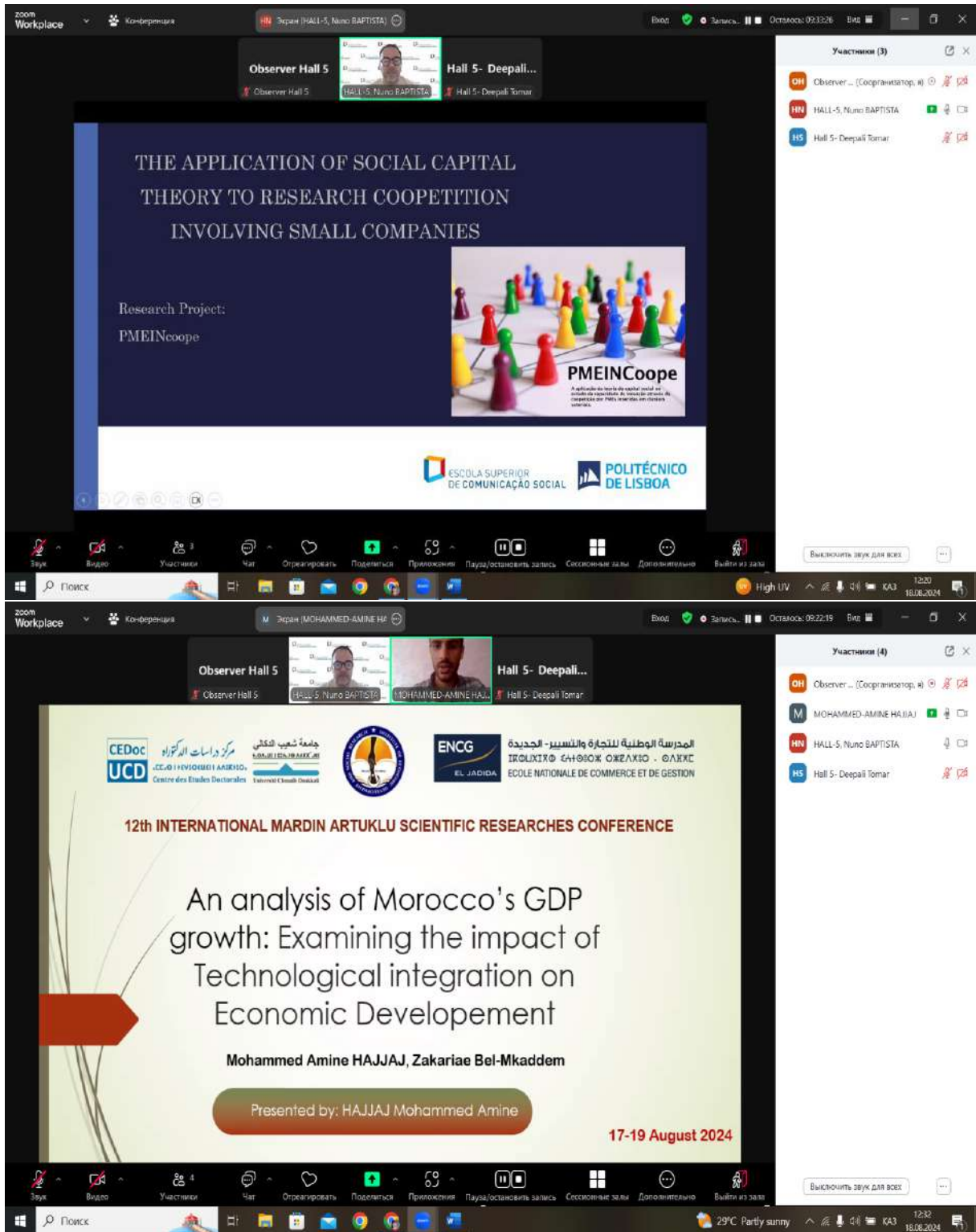
Göknil

Sesi aç Videoyu Başlat Katılımcılar 10 Sohbet Ekranı paylaş Kaydı Duraklat/Durdur Alt Yazıları Göster Ara Odalar Reaksiyonlar Uygulamalar Beyaz Tahtalar Odadan Çık

# PHOTO GALLERY



# PHOTO GALLERY



# PHOTO GALLERY

zoom Workplace Toplantı - Hall-6 Kaydediliyor... Kapan: 09:53:16 Görüntüle

Katılımcılar (4)

- IKSAD ... (Oturum Sahibi, ben)
- IH Infinix HOT 12 Play
- HV H\_6 Valeria Szeplaki
- HM H-6, Moses Adeolu AGOI

H\_6 Valeria Szeplaki H-6, Moses Adeolu AGOI

Ses Video Katılımcılar Sohbet Tepki ver Paylaş Uygulamalar Ara Odalar Daha fazla Odaya Çık

zoom Workplace Toplantı - Hall-5 Kaydediliyor... Kapan: 09:40:14 Görüntüle

Katılımcılar (4)

- IKSAD ... (Oturum Sahibi, ben)
- HM H-6, Moses Adeolu AGOI
- Z ZOHARA
- HV H\_6 Valeria Szeplaki

H\_6 Valeria Szeplaki H-6, Moses Adeolu AGOI

Ses Video Katılımcılar Sohbet Tepki ver Paylaş Uygulamalar Ara Odalar Daha fazla Odaya Çık

## PHOTO GALLERY

zoom Workplace Toplantı HV\_6 Valeria Szeplaki adlı kişinin el

Kaydediliyor... Kalan: 09:31:23 Görüntüle

Katılımcılar (4)

- IKSAD ... (Durum Sahibi, ben)
- HV\_6 Valeria Szeplaki
- H-6 Moderátor: Moses Adeolu ...
- ZOHAIRA

UNIVERSITY OF PUBLIC SERVICE  
LUDOVIKA

### GOVERNMENT PRUDENTIAL SUPERVISION OF PRIVATE INSURANCE COMPANIES IN THE EU - the issue of scientific research methods

Doctoral School of Public Administration  
Faculty of Public Governance and International Studies  
Research field: Political science and governance  
Széplaki Valéria  
Supervisor: Dr. habil. Vértesy László associate professor  
Dissertation: Insurance law and governance

Ses Video Katılımcılar Sohbet Toplu ver Paylaş Uygulamalar Ara Odalar Daha fazla Odadan Çık

Tümünü Sessize Al

1817 18.08.2024 29°C Kısmen güneşli

Toplantı SALON 2-Melike BAYRAK adlı ki

Kaydediliyor... Kalan: 08:04:07 Gör

observer hall 2 observer hall 2 Büşra Söngüt

Hall-2, Muzaffer DOĞ... observer hall 2 SALON 2-Melike BAYRAK H2- Gonca Yayan Büşra Söngüt Session-1/Hall-2 Must...

Mardin Artuklu Söngüt - PowerPoint

Yeni Tek Paragraf Çizim

1 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

2 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

3 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

4 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

5 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

6 İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

## İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

- İnsanların sağlığını birçok yönden etkileyen iklim değişikliği, karşılaştırılabilir zaman dilimlerinde gözlenen doğal iklim değişikliğine ek olarak, doğrudan veya dolaylı biçimde küresel atmosferin bileşimini bozan insan faaliyetleri sonucunda iklimde oluşan değişiklik olarak tanımlanır.

18th INTERNATIONAL MARDİN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE  
August 17-19, 2024 / Mardin, Türkiye

# PHOTO GALLERY

Toplantı Bağa Songüt adlı kişinin ekranı Kaydediliyor... Kalam: 08:19:07 Görüntüle

observer hall 2 Nadide Gizem T... Hızlı Gözden Geçir

9084 Aylesios

**ERGENLİK DÖNEMİNDE BULUNAN VE KORUNMAYA İHTİYACI OLAN BİR GRUP ÇOCUKLA YAPILAN GÖRSEL SANATLAR ETKİNLİKLERİNİN DEĞERLENDİRİLMESİNE VE YORUMLANMASINA YÖNELİK ÇORUM İLİ ÖRNEĞİ**

BÜŞRA SÖNGÜT VE GONCA YAYAN  
OAZİ ÜNİVERSİTESİ, EĞİTİM FAKÜLTESİ,  
RESİM İŞ EĞİTİMİ ANA BİLİM DALI

Toplantı Session-1/Hall-2 Mustafa KARAC Kaydediliyor... Kalam: 09:06:20 Görüntüle

observer hall 2 HALL-2, Tuğba... SALON 2-Melike BAYR

SÖZLÜ SUNUM-MARDİN ARTUKLU KONGRESİ.ppt - LİBRUSO'flica Impress

Dosya Düzenle Görünüm Ekle Biçim Slayt Slayt Gösterisi Araçlar Pencere Yardım

Slaytlar

BİLECİK SEYH EDEBALI ÜNİVERSİTESİ

TEŞEKKÜRLER...

Özellikler

Slayt

Biçim: Ekran Görüntüsü (4:3)  
Yönelim: Yatay  
Arkaplan: Bitiş işlemi  
Resim Ekle...  
Ana Slayt: Varsayılan  
 Ana Arkaplan  
 Ana Notlar  
Ana Görünüm

Düzenler

## PHOTO GALLERY

Toplantı HALL-2, Tuğba Melike Parlak adı Kaydediliyor... Kalan: 09:11:40 Görüntüle

observer hall 2

HALL-2, Tuğba Melike Parlak

KEÇİLERDE FLORFENİKOL KULLANIMI



- FARAD (Food Animal Residue Avoidance Databank) florfenikolün keçilerde etiket dışı kullanımında kas içi 20 mg/kg (2 günde bir) veya tek doz deri altı 40 mg/kg dozunda kullanılabileceğini bildirmiştir.
- Kesim öncesi bekleme süresi kas içi uygulama sonrası 60 gün ve deri altı uygulama sonrası 70 gün olarak tanımlanmıştır.
- Süt kullanımı için bekleme süresi kas içi uygulama sonrası 7 gün ve deri altı uygulama sonrası 26 gün olarak bildirilmiştir.

observer hall 2

Kadirhan Önk

12th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE

**A REVIEW OF INTERGROUP CONTACT INTERVENTIONS ON THE ISLAND OF CYPRUS**

**KADİRHAN ÖNK** **Dr. HATİCE EKİCİ**

Izmir Katip Celebi University, Institute of Social Sciences, Department of Psychology, ORCID ID: 0009-0003-9002-5198

Dr., Izmir Katip Celebi University, Faculty of Social Sciences and Humanities, Department of Social Psychology, ORCID ID: 0000-0002-8032-9708



# PHOTO GALLERY

Zoom Toplantı - Hall-3

Kaydediliyor... | Giriş yapın | Kalan: 09:40:48 | Görüntüle

Observer Hall-3

Halle3, Hazar Keskin

Observer Hall-3

Özge Kaya Mınav-Bayreuth University

Yunus ARDIÇOĞLU

pc

Meriye Sene Dağ

Yağmur UYSAL-...

Yağmur UYSAL-Hall 4

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

10:13 18.8.2024

Zoom Toplantı - Hall-3

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

Observer Hall-3

Halle3, Hazar Keskin

Observer Hall-3

Yağmur UYSAL-Hall 3

Özge Kaya Mınav-Bayreuth University

Meriye Sene Dağ

Yunus ARDIÇOĞLU

Yunus ARDIÇOĞ...

Sesimi Aç (Alt+A). Veya sesi geçici olarak açmak için boşluk tuşunu basılı tutabilirsiniz.

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

10:45 18.8.2024

# 12<sup>th</sup> INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE



## CONFERENCE PROGRAM

August 17-19, 2024 / Mardin, Turkiye

**Zoom Meeting ID: 858 1117 0419**

**Zoom Passcode: 171819**

### **IMPORTANT, PLEASE READ CAREFULLY**

- ❖ To be able to attend a meeting online, login via <https://zoom.us/join> site, enter ID "Meeting ID or Personal Link Name" and solidify the session.
- ❖ 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.
- ❖ The participant must be connected to the session 5 minutes before the presentation time.
- ❖ All congress participants can connect live and listen to all sessions.
- ❖ Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.

### **Points to Take into Consideration - 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.
- ◆ Requests such as change of place and time will not be taken into consideration in the congress program.

**PARTICIPANTS COUNTRIES:** Turkiye, Azerbaijan, Kazakhstan, Morocco, Nigeria, Pakistan, Bulgaria, Algeria, Albania, Republic of Kosovo, India, Bangladesh, Indonesia, Ukraine, Hungary, Vietnam, Malaysia, Jordan, Uzbekistan, Canada, México, Portugal, North Cyprus, Romania, Bucharest, Libya, Tunisia, Republic of Moldova, France

<b>SESSION-1 / HALL-1</b> <b>17.08.2024/ 10.00-12.00</b> <b>Moderator: Assoc. Prof. Dr. Bengi SONYEL</b>	
<b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>	

AUTHOR	AFFILIATION	TITLE
Assoc. Prof. Dr. Bengi SONYEL M.A Mürvet AKBAŞ	<i>Eastern Mediterranean University</i>	EXAMINATION OF PRIMARY SCHOOL CLASSROOM TEACHERS' OPINIONS AND ATTITUDES TOWARDS THE USE OF COMPUTER AIDED TEACHING METHODS
Lec. Dr. Sümeyye ÖCAL DÖRTERLER	<i>Dumlupınar University</i>	AN INVESTIGATION OF PRESCHOOL TEACHERS' CREATIVE THINKING TENDENCIES AND BELIEFS TOWARDS EDUCATIONAL TECHNOLOGIES
Feyza GÖKDEMİR Asst. Prof. Dr. Mehmet Emin USTA Dr. Ümit DOĞAN	<i>Sakarya University Ministry of Education</i>	TEACHERS' OPINIONS ABOUT DISTANCE EDUCATION
Tuba YILMAZOK Dr. Lecturer Serap DEMİRİZ	<i>Ministry of National Education Gazi University</i>	EXAMINATION OF PRESCHOOL CHILDREN'S EARLY LITERACY SKILLS ACCORDING TO SOME VARIABLES
Aslıhan SAĞ Assoc. Prof. Dr. Müzeyyen ELDENİZ ÇETİN	<i>Ministry of Education., Eskişehir Elbruz Bilge Application School 3rd Level Bolu Abant İzzet Baysal University</i>	EXAMINATION OF THE RELATIONSHIP BETWEEN POSITIVE FUTURE EXPECTATION AND LIFE SATISFACTION OF PARENTS WITH A CHILD AFFECTED WITH MULTIPLE DISABILITY AND PARENTS WITH TYPICAL DEVELOPMENT CHILDREN
Esra NARİN GÜVEN Dr. Lecturer Serap DEMİRİZ	<i>Ministry of National Education Gazi University</i>	EXAMINATION OF THE ATTITUDES OF PARENTS WITH PRESCHOOL CHILDREN IN RELATION TO PARENTAL VARIABLES
Assoc. Prof. Dr. Hülya TUNCER Assoc. Prof. Dr. İhsan ÜNALDI Esmanur KARA	<i>Çukurova University Nevşehir Hacı Bektaş Veli University</i>	CONTRIBUTIONS OF A VIRTUAL EXCHANGE PROGRAM TO CREATIVE THINKING SKILLS OF A PRE-SERVICE EFL TEACHER: AN AUTOETHNOGRAPHIC STUDY
Emine Şeyma TEKELİOĞLU Prof. Dr. Gül (TEKAY) BAYSAN	<i>Gazi University</i>	ANALYSIS OF TASKS IN 'LES LOUSTICS A2.1', FRENCH AS A FOREIGN LANGUAGE TEXTBOOK FOR CHILDREN
Exp. Clinical Psychologist Sema GÖNÜLTAŞ YÜCEKAYA	<i>Ministry of Education</i>	EXAMINING THE RELATIONSHIP BETWEEN THE SOCIAL EMOTIONAL WELL-BEING AND PSYCHOLOGICAL RESILIENCE OF 3-6 YEAR OLD PRESCHOOL CHILDREN AND THE CONTAINING FUNCTIONS OF THEIR MOTHERS

<b>SESSION-1 / HALL-2</b> <b>17.08.2024/ 10.00-12.00</b> <b>Moderator: Prof. Dr. Süha YILMAZ</b>	
<b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>	

AUTHOR	AFFILIATION	TITLE
Dr. GAMIDOV Elshad Gamidoglu	<i>Azerbaijan State Pedagogical University</i>	BOUNDARY VALUE PROBLEM FOR OPERATOR-DIFFERENTIAL EQUATIONS
Nərmin SADIQLI	<i>Baku State University</i>	COGNITIVE MODELS AND GRAPH THEORY: NEW APPROACHES
Dr. Cemre CANDEMİR	<i>Ege University</i>	COMPARATIVE ANALYSIS OF BRAIN GRAPH METRICS IN YOUNG AND OLDER ADULTS
Dilek Mungan ÇELİMLİ Prof. Dr. Süha YILMAZ	<i>Aydın Degisim College Dokuz Eylul University</i>	INVESTIGATION OF MATHEMATICAL ACHIEVEMENTS OF SECONDARY SCHOOL 7TH GRADE STUDENTS ON PERCENTAGES
Dilek Mungan ÇELİMLİ Prof. Dr. Süha YILMAZ	<i>Aydın Degisim College Dokuz Eylul University</i>	INVESTIGATION OF MATHEMATICAL LANGUAGE SKILLS OF SECONDARY SCHOOL 7TH GRADE STUDENTS ON PERCENTAGES
Buse Gizem YİTMEZ Assoc. Prof. Dr. Ayşe TEKİN DEDE Prof. Dr. Süha YILMAZ	<i>Dokuz Eylul University</i>	INVESTIGATION OF PRE-SERVICE PRIMARY MATHEMATICS TEACHERS' COLLECTIVE ARGUMENTATION PROCESSES IN TECHNOLOGY-SUPPORTED RECTANGLE CONSTRUCTION PROCESS
Büşra GÜNKAYA Prof. Dr. Süha YILMAZ	<i>Dokuz Eylul University</i>	A META-SYNTHESIS STUDY ON MATHEMATICS EDUCATION RESEARCH CONDUCTED WITH VISUALLY IMPAIRED INDIVIDUALS IN TURKEY IN THE LAST 10 YEARS
Dr. Hilal KARABULUT Dr. Hasan GÖKÇE Esra ŞAHBAZ	<i>Ministry of Education Erciyes University</i>	INVESTIGATION OF SCIENCE TEACHER CANDIDATES' VIRTUAL SCIENCE CENTER EXPERIENCES

<b>SESSION-1 / HALL-3</b> <b>17.08.2024/ 10.00-12.00</b> <b>Moderator: Assist. Prof. Dr. Aziz COŞKUN</b> Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819
--

AUTHOR	AFFILIATION	TITLE
Dr. Ragıp ERGÜN	<i>Artvin Çoruh University, Şavşat Vocational School</i>	ŞEVKET AZİZ KANSU'S PERCEPTION OF "TURK" IN TURKISH ANTHROPOLOGY JOURNAL
Dr. Ragıp ERGÜN	<i>Artvin Çoruh University, Şavşat Vocational School</i>	THE TURK AS AN IDENTITY THAT CAN BE: "TURKIFICATION" IN THE ORKHON MONUMENTS AND ZIYA GOKALP
Res. Asist. Emre AKTÜRK	<i>KTO Karatay University</i>	JOSE ORTEGA Y GASSET'S UNDERSTANDING OF HISTORY
Assist. Prof. Dr. Aziz COŞKUN	<i>Bitlis Eren University</i>	DATA JOURNALISM: AN ANALYSIS ON TRT HABER'S USE OF INFOGRAPHICS
Dr. Fidan ALHAS	<i>Inonu University</i>	EXAMINING THE RELATIONSHIP BETWEEN MYOPISM AND ORGANIZATIONAL CONFLICT
Asst. Prof. Büke KOYUNCU KAHVECİOĞLU	<i>Mimar Sinan Fine Arts University</i>	NEW FORMS OF SPIRITUALITY AS A MORAL PERSPECTIVE IN TURKEY: THE EXAMPLE OF YOGA INSTRUCTORS

<b>SESSION-1 / HALL-4</b> <b>17.08.2024/ 10.00-12.00</b> <b>Moderator: Dr. Sujata Dabolkar</b>
<b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>

AUTHOR	AFFILIATION	TITLE
Dr. Rabia Ghaffar Dr. Sammina Mahmood Marwa Majeed Bhutta	<i>University of Education</i>	ALLELOPATHIC EFFECTS OF <i>Acacia nilotica</i> L. ON THE WILD WEEDS OF CHICKPEA
Dr. Sujata Dabolkar	<i>Government college of Arts, Science and Commerce</i>	LATEST PROGRESS OF DEEP-SEA POLYMETALLIC NODULE MINING TECHNOLOGY- A REVIEW
Fedwa BEGHDADI El-Hadj DRICHE	<i>Hassiba Benbouali University of Chlef</i>	GH 16 A STRAIN OF ACTINOBACTERIA ISOLATED FROM A SOIL OF AN ALGERIAN DESERT WITH A POTENTIAL TO INHIBIT PHYTOPATHOGENIC FUNGI
Fedwa BEGHDADI El-Hadj DRICHE	<i>Hassiba Benbouali University of Chlef</i>	ASPERGILLUS NIGER IS A SERIOUS DISEASE THAT THREATENS ONION CROPS AND MANY STRATEGIC CROPS
Tehseen Fatima Muhammad Asad	<i>University of Education</i>	INVESTIGATING THERAPEUTIC POTENTIAL OF KHAGAL (TAMARIX APHYLLA) LEAVES EXTRACT AGAINST GRAPHENE NANOSHEETS TOXICITY IN MORI (CIRRHINUS MIRIGALA)
Nikolay Tsandev Jaclyn Ignatova	<i>Trakia University</i>	COMPARATIVE STUDY OF THE POLYMER 'Elan-tech® EC 1150/W1150' AND ITS APPLICATION IN ANATOMY
Mouassa Bochra	<i>University Chadli benjdid</i>	AQUACULTURE OF THE GILT HEAD SEABREAM ( <i>SPARUS AURATA</i> ) IN ALGERIA

**SESSION-1/ HALL-5**  
**17.08.2024/ 10.00-12.00**  
**Moderator: Dr. Fedi Ben Dhaou**

Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819

AUTHOR	AFFILIATION	TITLE
Fedi Ben Dhaou Rim Khemakhem Rahma Gargouri Mohamed Douzi Housseem Eddine Htiouech Samira Jerbi Bassem Abid	<i>Higher Institute of Nursing Sciences Hédi Chaker University Hospital</i>	UNDERSTANDING ASTHMA IN RURAL POPULATIONS: IMPACT AND MANAGEMENT CHALLENGES
Ranti Ekasari Lilis Widiastuty Nasril Nasruddin Sudarsin Khaerun Mawartisna Azzahra Nurul Bahjah Hasyim	<i>Universitas Islam Negeri Alauddin Makassar</i>	ANALYSIS OF LIGHTING FACTORS AND WORK STRESS IN FURNITURE WORKERS
Dalia Elloumi Fedi Ben Dhaou Omar Kammoun Slehiddine Bouchelliga Majd Ettis Bassem Abid	<i>Higher Institute of Nursing Sciences Habib Bourguiba University Hospital</i>	PERCEIVED BEHAVIORAL CONTROL AND BELIEFS ABOUT ORGAN DONATION AND TRANSPLANTATION
Fedi Ben Dhaou Maroua Trigui Ghada Nasri Emna Mziou Bouthaina Trabelsi Mouna Baklouti Zeineb Mallek Mondher Kassis	<i>Habib Bourguiba University Hospital</i>	EXPLORING FACTORS ASSOCIATED TO HYGIENE ERRORS AMONG YOUNG DOCTORS
Dalia Elloumi Fedi Ben Dhaou Lobna Zouari Yosr Gargouri Hana Henteti Bassem Abid	<i>Higher Institute of Nursing Sciences Hedi Chaker University Hospital</i>	FACTORS ASSOCIATED WITH POSTPARTUM DEPRESSION: ABOUT 59 CASES
Haruna Karamba Zainab Umar Zandam Usaini Aliyu	<i>Hussaini Adamu Federal Polytechnic Kazaure</i>	ECONOMIC IMPORTANCE OF TOBACCO MOSAIC VIRUS (TVM) A REVIEW
Efegbere, Henry Akpojubaro Bartholomew Owoicho Enemuo, Emeka Hycent Ojeifo Stephenson Olufunke Onaadepo Obataze Akpoyovwere Evaristus Afiadigwe Abubakar Mustapha Jamda	<i>Edo State University Uzairue Global Community Health Foundation International College of Health Sciences and Technology, International Centre of Inter-professional Team Building, Cherish Specialist Clinic Adoka University, Nnamdi Azikiwe University, Edo State Ministry of Health University of Abuja</i>	EXPERIMENTAL MODELLING OF ATTITUDINAL FORECAST OF TEAM BUILDING USING THE INVENTED TRAINING MODEL OF EFEGBERE HENRY AKPOJUBARO: WINNING BY THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS NUMBER THREE, FOUR, EIGHT, NINE, TEN , SIXTEEN AND SEVENTEEN
Efegbere, Henry Akpojubaro Akpojisheri Erhuvwu Akpoyovwere Obataze Enemuo Emeka Hycent Eze Tochukwu Hyacinth Olufunke Onaadepo Alenoghena O. Innocent Odogu Juliana Ebeatari	<i>Edo State University Uzairue Global Community Health Foundation Cashville Development Foundation International Centre of Inter-professional Team Building, The Brethren Ministry International, International College of Health Sciences and Technology LTD International College of Management Technology LTD, Nnamdi Azikiwe University, University of Abuja Ambrose Ali University, Federal Medical Centre Asaba</i>	ASSESSMENT OF ROLE OF PHYSICAL ACTIVITY IN OBESITY RISK DETERMINANTS, PREVENTION AND MANAGEMENT AMONG UNDERGRADUATE STUDENTS IN A TERTIARY INSTITUTE IN NIGERIA

<b>SESSION-1 / HALL-6</b> <b>17.08.2024/ 10.00-12.00</b> <b>Moderator: Dr. Ananda Majumdar</b>	
<b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>	

AUTHOR	AFFILIATION	TITLE
Dr. Abderrahmane Reggad Dr. Nabila NAIMI	<i>Hassiba Benbouali University Higher Training Teachers' School of Oran (ENS)</i>	HEROISM AS A UNIVERSAL VALUE IN ERNEST HEMMINGWAY'S THE OLD MAN AND THE SEA" AND PAULO COELHO'S "THE ALCHEMIST"
Monica Alina Toma, Ph.D	<i>The Bucharest University of Economic Studies</i>	THE POETIC CONSTRUCTION OF WOMANHOOD IN NICHITA STANESCU'S POETRY VOLUME, "A VISION OF FEELINGS" (1964)
Ananda Majumdar	<i>University of Alberta</i>	CHESS AS AN EDUCATIONAL SKILL IN COURTLY CULTURE IN MEDIEVAL CASTILE
Dr. Fatima Zohra BELKHIR	<i>University of Tlemcen</i>	RESEARCH WRITING DIFFICULTIES: INSIGHTS FROM EFL MASTER STUDENTS
Bello Malik Pelumi Kareem Adeyinka Oluwaseun Bamidele Folorunsho Emmanuel	<i>Obafemi Awolowo University</i>	THE INFLUENCE OF INTERACTIVITY ON THE LONG-TERM RETENTION BENEFITS OF LEARNING BIOLOGY CONCEPTS WITH THE PROTÉGÉ EFFECT
Msc.Tiziana Ceka	<i>Aleksander Moisiu University</i>	THE ROLE AND INFLUENCE OF TEACHING IN HEALTH AWARENESS IN THE EDUCATIONAL SYSTEM
Dr. Azamat Akbarov	<i>Silk Road Research Academy</i>	TRANSFORMING HIGHER EDUCATION: INNOVATIVE TEACHING METHODS IN 21 ST CENTURY CLASSROOMS



<b>SESSION-2 / HALL-1</b> <b>17.08.2024/ 12.30-14.30</b> <b>Moderator: Associate Professor Maşallah TURAN</b> Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819
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AUTHOR	AFFILIATION	TITLE
Dr. İbrahim SAYLAN	<i>Osmaniye Korkut Ata University</i>	THE LITERATURE OF SHAMĀ'IL AND THE WORK 'SHAMĀ'IL AL-NUBUWWAH' BY AL-KAFFĀL AL-SHĀSHĪ
Dr. Muazzam YENER	<i>Kahramanmaraş Sütçü İmam University</i>	SOURCES OF AL-DURRU'L-MASŪN AND STUDIES ABOUT IT
Cevriye ÖZKAN	<i>Cumhuriyet University</i>	NİSA SURESİ BAĞLAMINDA KADIN VE SOSYAL HAYATTAKİ KONUMU
Assoc. Prof. Maşallah TURAN	<i>Mardin Artuklu University</i>	ISLAM'S LIBERATING PRACTICES
Res. Asst. Dr. Cihan ÖZAYKAN	<i>Bartın University</i>	THE CONCEPT OF SECOND NATURE AS AN EXPRESSION OF CAPTIVITY TO NIHILITY AND EVIL IN THE PHILOSOPHY OF IBN TAYMIYYA
Assoc. Prof. Mehmet ÇETİNKAYA	<i>Mardin Artuklu University</i>	TERĠB VE TERHĪB HADİSLERİNDE YALAN PROBLEMİ

<b>SESSION-2 / HALL-2</b> <b>17.08.2024/ 12.30-14.30</b> <b>Moderator: Prof. Dr. Ahmet Niyazi ÖZKER</b> Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819
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AUTHOR	AFFILIATION	TITLE
M.Sc. HAGAR ALILABIB PROF. DR. GOKHAN GELISEN	<i>Bahcesehir University</i>	COMPARISON OF CRYPTOCURRENCIES AND SUSTAINABLE ENERGY AS INVESTMENT OPPORTUNITIES
Ayşe ÇELİK Assoc. Prof. Dr. Said Alpagut ŞENEL	<i>Sivas Cumhuriyet University</i>	THE EFFECTS OF DIGITAL TRANSFORMATION ON THE ACCOUNTING PROFESSION
Prof. Dr. Ahmet Niyazi ÖZKER	<i>Bandirma Onyedil Eylül University</i>	NET INTEREST MARGIN DEVELOPMENTS RECENTLY IN TÜRKİYE AND THE FINANCIAL SECTOR PERFORMANCE EXPECTATIONS
Batuhan KANAT Assistant Professor Esra İŞBİLEN DURU	<i>Istanbul Gedik University</i>	RELATIONSHIP BETWEEN SUSTAINABILITY ACTIVITIES AND CORPORATE REPUTATION: THE EXAMPLE OF FINANCIAL INTERMEDIARY INSTITUTIONS
Habip TAK Haluk KORKMAZ	<i>Hasan Kalyoncu University</i> <i>Yozgat Bozok University</i>	THE ROLE AND LEGAL OBLIGATIONS OF BANKS IN FIGHTING MONEY LAUNDERING
Habip TAK	<i>Hasan Kalyoncu University</i>	A LITERATURE REVIEW ON THE RELATIONSHIP BETWEEN AGRICULTURAL SUPPORT AND CREDITS AND GDP IN SELECTED EU COUNTRIES AND TURKEY
Assoc. Prof. Dr. Emre ÜNAL Alparslan YUVANÇ	<i>Firat University</i>	THE IMPACT OF GLOBAL FACTORS AND BITCOIN ON BIST100
Dr. Ahmet BOZ	<i>Mardin Artuklu University</i>	FROM RUIN TO MODERNITY: EXTRAORDINARY TRANSFORMATION OF HISTORICAL STONE HOUSES AND STONE MANSIONS INTO TOURISTIC PRODUCTS

<b>SESSION-2 / HALL-3</b> <b>17.08.2024/ 12.30-14.30</b> <b>Moderator: Assoc. Prof. Dr. Aslı KARATAŞ</b> <b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>
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AUTHOR	AFFILIATION	TITLE
Assoc. Prof. Dr. Murat ALAKEL Faizullah Nazari	<i>Yalova University</i>	CHINA'S AFGHANISTAN POLICIES: REGIONAL SECURITY PERSPECTIVES
Lecturer Meltem ERDİL	<i>Bitlis Eren University, Hizan Vocational School</i>	THE ASSERTION OF COLLUSION CONSTITUTES ABUSE OF RIGHT
Asst. Prof. Dr. İbrahim Halil POLAT	<i>Hakkari University</i>	TRB2 BÖLGESİNDE BİYOKÜTLE ENERJİSİNİN POTANSİYELİ VE TERSİNE LOJİSTİK FAALİYETİ ÜZERİNE BİR DEĞERLENDİRME
Hayriye OKUTAN Prof. Dr. Osman OKKA	<i>KTO Karatay University</i>	COMPARISON OF ISLAMIC AND CONVENTIONAL COMPANIES
Res. Asst. Dr. Gamze DOLANBAY	<i>Van Yüzüncü Yıl University</i>	AN MCDM APPLICATION TO DETERMINE THE MOST EFFICIENT SUBJECT IN THE EYES OF THE STUDENT BY RANKING THE TOPICS OF THE OPERATIONS RESEARCH COURSE WITH THE CRITERIA DETERMINING THE COURSE EFFECTIVENESS
Assistant Professor Alperen AĞCA	<i>Osmaniye Korkut Ata University</i>	HOW DO MILITARY EXPENDITURES AND OIL CONSUMPTION AFFECT ECONOMIC GROWTH DURING RUSSIA AND UKRAINE CONFLICT? A PANEL ARDL STUDY
Dr. Uğur TÜLÜ	<i>Piri Reis University</i>	COMBINING WORKPLACE AND TELEWORKING: HYBRID WORK MODEL
Assoc. Prof. Dr. Aslı KARATAŞ	<i>Mugla Sıtkı Kocman University</i>	RELATIONSHIP BETWEEN MIGRATION AND SOCIOECONOMIC DEVELOPMENT

<b>SESSION-2 / HALL-4</b> <b>17.08.2024/ 12.30-14.30</b> <b>Moderator: Dr. Doris Doda</b>
<b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>

AUTHOR	AFFILIATION	TITLE
Faisal Nazir	<i>The University of Agriculture</i>	PRODUCTION AND CHARACTERIZATION OF CARBON NANOTUBES FROM BIOCHAR UNDER MICROWAVE IRRADIATION
Monapriya Naidu Kerinasamy Naidu Dr. Ramesh Kasi Dr Ramesh T. Subramaniam Dr. B. Vengadaesvaran	<i>University of Malaya</i>	ADVANCING CORROSION PROTECTION: NANOCOMPOSITE COATINGS OF NATURAL RUBBER AND GRAPHENE NANOMATERIALS
Kinza Zulfiqar Hafeez Anwar	<i>University of Agriculture</i>	ENHANCING EFFICIENCY OF PEROVSKITE SOLAR CELLS FROM SURFACE PASSIVATION OF Cr 3+ DOPED CuGaO 2 AS AN INORGANIC HOLE TRANSPORT MATERIAL (HTM)
AMINE EL HARFOUF ABDERRAHIM WAKIF SANAA HAYANI MOUNIR	<i>Sultan Moulay Slimane University Hassan II University</i>	NUMERICAL INVESTIGATION OF NANOFUID FLOW WITH GOLD NANOPARTICLES INJECTED INSIDE A STENOTIC ARTERY
Nouhaila BENKOHAILA Dr. Saïda BAHSINE Dr. Nathalie LORRAIN Dr. Fatima LMAI Dr. Joel CHARRIER	<i>University of Rennes 1 University of Cadi Ayyad Marrakech University Hassan II of Casablanca</i>	THEORETICAL STUDY OF CHALCOGENIDE (CHG) GLASS OPTICAL SENSOR BASED ON RIDGE WAVEGUIDE FOR SENSING APPLICATIONS IN THE MID-INFRARED
Fettouch Houari	<i>University of Mostaganem</i>	ON THE HYPER-ORDER OF SOLUTIONS OF LINEAR DIFFERENTIAL EQUATIONS
Dr. Hayatem Hamal	<i>Tripoli University</i>	THE MOMENTS AND CENTRAL MOMENTS OF KANTOROVICH TYPE OF BERNSTEIN OPERATORS VIA $(p, q)$ -CALCULUS
Dr. Doris Doda	<i>Barleti University</i>	INTRODUCTION TO QUASI-OPEN SETS IN BISPACES

**SESSION-2 / HALL-5**  
**17.08.2024/ 12.30-14.30**

**Moderator:**

Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819

AUTHOR	AFFILIATION	TITLE
Lec. MSc. Eng. Hasan MLINAKU Prof. Ass. Dr. Besnik HAJDARI	<i>University of Mitrovica</i>	THE ROLE OF INFORMATION SYSTEMS IN THE CREATION AND USE OF ELECTRONIC PROCUREMENT PLATFORM IN THE REPUBLIC OF KOSOVO
Prof. Ass. Dr. Besnik HAJDARI Lec. MSc. Eng. Hasan MLINAKU	<i>University of Mitrovica</i>	THE IMPACT OF INFORMATION SYSTEMS ON THE MANAGEMENT OF ELECTRONIC COMMUNICATIONS
Ismail Olaniyi MURAINA Imran Ademola ADELEKE	<i>Lagos State University of Education</i>	EMOJI USE IN SCIENCE: FOSTERING COLLABORATION OR FUELING CONFUSION?
Yakubu Abubakar Lidani	<i>Federal Polytechnic Kaltungo</i>	CYBERSECURITY IN THE AREA OF IOT. SECURING THE CONNECTED WORLD
Ait Hmeid Laila	<i>Euromed University of Fez (UEMF)</i>	PERSONALIZED MOVIE RECOMMENDATION SYSTEM
Mohana Radhai G Pradeepa T R Shivani	<i>R.M.K. Engineering College</i>	HEMOSYNC: REVOLUTIONIZING BLOOD BANK OPERATIONS
Rocky Ghosh Sandeepan Saha	<i>Greater Kolkata College of Engineering and Management</i>	A STUDY ON THE USE OF CERAMICS AS CONSTRUCTION MATERIAL
Debotosh Roy Sandeepan Saha	<i>Greater Kolkata College of Engineering and Management</i>	A STUDY ON THE EFFECTIVENESS OF NANOSTRUCTURED COMPOSITES IN ENHANCING PAINT CORROSION RESISTANCE PROPERTIES
Arpita Mondal Sandeepan Saha	<i>Greater Kolkata College of Engineering and Management</i>	A STUDY ON THE EFFECTIVENESS OF NANOSTRUCTURED COMPOSITES IN ENHANCING CONCRETE STRUCTURES' CORROSION RESISTANCE PROPERTIES

**SESSION-2 / HALL-6**  
**17.08.2024/ 12.30-14.30**

**Moderator:**

Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819

AUTHOR	AFFILIATION	TITLE
Rajaa Diany Mohamed El idrissi Mohammed Salah Abdessamad Tounsi	<i>Sultan Moulay Slimane University Chouaib Doukkali University</i>	A COMPREHENSIVE STUDY INTO THE ALIZARIN-BASED DYES FOR OPTIMISING SOLAR CELL PERFORMANCE
Saima Bibi Rehana Riaz Sehrish Sewyra Muhammad Zubair	<i>Government College University Faisalabad</i>	PALLADIUM CATALYZED CROSS-COUPLING OF 3-METHYLTHIOPHENE-2-CARBONYL CHLORIDE WITH ARYL/HET-ARYL BORONIC ACIDS: A CONVENIENT METHOD FOR SYNTHESIS OF THIENYL KETONES
Yassine Koubi Youness Moukhliiss Marwa Alaqrbeh Hamid Maghat Tahar Lakhlifi Mohammed Bouachrine	<i>University Moulay Ismail National Agricultural Research Center University of Sultan My Slimane</i>	IN-SILICO RESEARCH USING MONTE CARLO TECHNIQUES TO CREATE NOVEL CERVICAL CANCER CANDIDATES (CCU), AS WELL AS ADMET-OX FOR THERAPEUTIC ASSESSMENT AND RETROSYNTHESIS
V. I. Chukwuike Sreya P. V Rakesh C. Barik Deepak K. Pattanayak	<i>David Umahi Federal University of Health Sciences Academy of Scientific and Innovative Research (AcSIR) Institute for Toxicology, Environmental &amp; Occupational Health and Safety Research</i>	CORROSION AND BIOCOMPATIBILITY OF ZINC OXIDE DECORATED TITANIA NANOSTRUCTURED LAYER OVER TITANIUM FOR BIOMEDICAL APPLICATION
Ubana Muhammed Abdullahi Nur Adeela Yasid Mohd Badrin Hanizam Mohd Ezuan Khayat Mohd Yunus Abd Shukor	<i>University Putra Malaysia</i>	ADSORPTION OF CHROMIUM USING COCOA HUSK AS A LOW COST BIOSORBENT FOR INDUSTRIAL CHROMIUM EFFLUENT TREATMENT
Ait Hmeid H Akodad M El Halim M Omdi F.E Baghour M Skalli A Chahban M Aalaoul M	<i>Mohamed 1st University Cadi Ayyad University of Marrakech-Morocco Liège University</i>	SEDIMENTOLOGY AND CHARACTERIZATION PHYSICO-CHEMICAL AND TEXTURAL PROPERTIES TEXTURAL PROPERTIES OF BENTONITES KERT NEOGENE BASIN
YUSUF LAWAL GAMBARAWA	<i>Umaru Musa Yaradua University</i>	RECENT PROGRESS IN SYNTHESIS AND ANTIMALARIAL ACTIVITY OF NEW COMPOUNDS
Amel RIAH Salim BOUSBA Dhirar BEN SALEM	<i>University of Constantine 03 Saleh Boubnider University of Biskra</i>	REDUCTION OF CRYSTAL VIOLET DYE FROM WATER BY NANOSTRUCTURED CARBON: INFLUENCING FACTORS AND ADSORPTION BEHAVIOUR

<b>SESSION-3 / HALL-1</b> <b>17.08.2024/ 15.00-17.00</b> <b>Moderator: Prof. Dr. AYDOĞAN ÖZDAMAR</b>	
Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819	

AUTHOR	AFFILIATION	TITLE
Assist.Prof.Dr. Serkan GÜNEY	<i>Ordu University, Ulubey Vocational Higher School</i>	SYNTHESIS, SPECTROSCOPIC, THERMAL AND STRUCTURAL PROPERTIES OF MIXED LIGAND MERCURY(II) SACCHARIN COMPLEXES WITH PIPERAZINE AND 1-(2-AMINOETHYL)PIPERAZINE
Şeyma Nur ÇAYIR Prof. Dr. Hayrettin AHLATÇI	<i>Karabuk University</i>	INVESTIGATION OF WELDING CAPABILITY OF 5083 MATERIAL WITH TIG WELDING METHOD WITH TWO DIFFERENT WIRES
Şeyma Nur ÇAYIR Prof. Dr. Hayrettin AHLATÇI	<i>Karabuk University</i>	INVESTIGATION OF MATERIAL PROPERTIES OF AA6082 ALLOY AS A RESULT OF TIG WELDING USING 5183 AND 5356 WELDING WIRES
Dr. Saadet GÜLER Dr. İsmail Doğan KÜLCÜ Berk ÖZLER Dr. Ahmet YAVAŞ	<i>İzmir Katip Çelebi University</i>	MACHINE LEARNING ANALYSIS OF MECHANICAL PROPERTIES IN Al <sub>2</sub> O <sub>3</sub> -REINFORCED POLYMER COMPOSITES PRODUCED VIA STEREOLITHOGRAPHY
Assist. Prof. Gökçe Mehmet GENÇER	<i>Dokuz Eylül University</i>	INVESTIGATION OF MICROSTRUCTURE AND WEAR BEHAVIOR OF AA1050/CeO <sub>2</sub> /EGGSHELL HYBRID SURFACE COMPOSITE
Ayşe Su GİZ Prof. Ata MUGAN	<i>Istanbul Technical University</i>	CORRECTION FACTOR FOR FATIGUE LIFETIME ESTIMATION USING JOHNSON L-TRANSFORM
ARINÇ AKINCIER MELİH MUHAMMET GÜLER Assoc. Prof. Dr. UTKU ŞENTÜRK Prof. Dr. AYDOĞAN ÖZDAMAR	<i>Ege University</i>	NREL PHASE VI WIND TURBINE PROTOTYPE AND MODEL TURBINE NUMERICAL RESEARCH
SUZAN BESTEL TEKİN Prof. Dr. AYDOĞAN ÖZDAMAR	<i>Ege University</i>	NUMERICAL AND EXPERIMENTAL EXAMINATION OF THE USE OF ELECTROMAGNETIC ADDITIONAL ENERGY IN HIGH LIFTER WATER PUMPS

**SESSION-3 / HALL-2**  
**17.08.2024/ 15.00-17.00**

**Moderator:**

Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819

AUTHOR	AFFILIATION	TITLE
Assistant Professor Seçil KÜÇÜK KAYA Research Assistant Dr. Hatice Kübra GÖREN Research Assistant Dr. Uğur TAN	<i>Aydın Adnan Menderes University</i>	CLIMATE-SMART FERTILISATION PRACTICES: ENHANCING RESILIENCE AND SUSTAINABILITY IN AGRICULTURE
Nesrican KODAN Assist. Prof. Mehmet IRMAK	<i>Siirt University</i>	USE OF SPIRULINA (ARTHROSPIRA PLATENSIS) IN POULTRY FEED
Assist. Prof. Dr. Polat İPEK Dr. Ayşe BARAN	<i>Dicle University Mardin Artuklu University</i>	METHANOLIC EXTRACTS OF 'CRATAEGUS MONOGYNA, MALUS SYLVESTRIS AND PISTACIA VERA L' HAVE A CELL MIGRATION EFFECT
Ece GENÇ Muhyettin ŞENTÜRK Prof. Dr. Rıza BİNZET	<i>Mersin University</i>	DETERMINATION OF CHLOROPHYLL AMOUNT IN LANDSCAPE PLANTS OF MERSİN\YENİŞEHİR DISTRICT AND ITS EFFECT ON THE REDUCTION OF CARBON DIOXIDE (CO <sub>2</sub> ) EMISSIONS
Dr. Havva Merve SEYHAN	<i>Independent Researcher</i>	AN OTTOMAN CITY WHERE PADDY PRODUCTION WAS MADE IN THE 15 th AND 16 th CENTURIES: TIRHALA
Ayçin AKÜNAL	<i>Selçuk University, Beyşehir Ali Akkanat School of Applied Sciences</i>	MICROPLASTICS AND AQUATIC INSECTS
Lecturer Fatma Şenay DEMİREL YEŞİLMEŞE	<i>Van Yuzuncu Yil University</i>	POSSIBILITIES OF USING REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM TECHNIQUES IN AGRICULTURE
Assist. Prof. Dr. Bedriye Seda KURŞUN AKTAR	<i>Malatya Turgut Özal University, Yeşilyurt Vocational School</i>	SYNTHESIS, CHARACTERIZATION, ANTICHOLINESTERASE INHIBITOR ACTIVITIES AND ANTIOXIDANT ACTIVITIES AND IN SILICO STUDIES OF NEW PYRAZOLE DERIVATIVE COMPOUNDS



<p style="text-align: center;"><b>SESSION-3 / HALL-3</b> <b>17.08.2024/ 15.00-17.00</b> <b>Moderator: Assoc. Prof. Dr. Gonenç HONGUR</b> <b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b></p>
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AUTHOR	AFFILIATION	TITLE
Feyza EROL	<i>Mimar Sinan Fine Arts University</i>	THE EFFECT OF CLOTHING SIMULATION TECHNOLOGIES ON THE DESIGNER'S CREATIVE PROCESS
Assist. Prof. Dr. Aysin Pelin KIREMITCI	<i>Istanbul University State Conservatorium</i>	CIRCULAR BREATHING TECHNIQUE AND WORKOUT SUGGESTIONS IN OBOE TRAINING
Assoc. Prof. Dr. Gonenç HONGUR Dr. Evrim KAŞIKCI	<i>Van Yüzüncü Yıl University Trakya University</i>	SYSTEMATIC TRAINING FOR IMPROVISATION IN TURKISH MUSIC CONSERVATORIES: A PROPOSAL
Lecturer Dr. Muzaffer Soner YILMAZ Prof. Dr. Uğur TÜRKMEN Assist. Prof. Dr. Filiz YILDIZ	<i>Çanakkale Onsekiz Mart University Afyon Kocatepe University</i>	A SOCIAL COGNITIVE STUDY: HISARLI AHMET
Research Assistant Ayşem ERSOY	<i>Istanbul University State Conservatorium</i>	THE IMPORTANCE AND EFFECTS OF THE CORRECT FINGERING TECHNIQUE for CELLO PERFORMANCE
Asst. Prof. Seda AĞIRBAŞ	<i>Ege University</i>	THE REFLECTION OF METAPHYSICAL THOUGHT IN ART MOVEMENTS
Assoc. Prof. Dr. Doğukan DURSUN Eda ALEMDAR ÇANKAYA Assoc. Prof. Dr. Betül KARAGÖZ DURSUN	<i>Inonu University Mümtaz Turhan Anatolian High School</i>	REVIEW OF GRADUATE STUDIES ON VALUES EDUCATION IN THE CONTEXT OF TURKISH FOLK MUSIC
Umut KAYA Beyzanur ERDAL Hüseyin Cem ÜSTÜN	<i>Hatemoglu</i>	MODERN TRANSITIONS FROM WOOD CARVING TO LINING FABRIC DESIGN: KUNDEKARI
Beyzanur ERDAL Kübra KOZAN	<i>Hatemoglu</i>	CLOTHING DESIGN FROM ALTERNATIVE TEXTILE SURFACE: SUSTAINABLE N-RAINCOAT

<b>SESSION-3 / HALL-4</b> <b>17.08.2024/ 15.00-17.00</b> <b>Moderator: Associate Professor Dr. Naseem Akhter</b> <b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b>	
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AUTHOR	AFFILIATION	TITLE
Alphones Abbas Dr. Zheer Ahmed	<i>Dr. Vishnwanath Karad MIT- World Peace University</i>	REVEALING TIME DISPARITIES, WHILE UNPACKING THE SOCIAL CONSTRUCT OF TEMPORALITY
Associate Professor Dr. Naseem Akhter	<i>Shaheed Benazir Bhutto Women University</i>	EMPOWERING WOMEN TO FIGHT AGAINST ABUSIVE TREATMENT AND HARASSMENT
Associate Professor Dr. Naseem Akhter	<i>Shaheed Benazir Bhutto Women University</i>	BREAKING THE GLASS CEILING IN THE LEADERSHIP OF WOMEN
Associate Professor Dr. Naseem Akhter	<i>Shaheed Benazir Bhutto Women University</i>	CULTURAL DIVERSITY AND LOCAL GOVERNANCE
Associate Professor Dr. Naseem Akhter	<i>Shaheed Benazir Bhutto Women University</i>	ADDRESSING RACISM IN WOMEN'S SERVICES
Gauri Tyagi Prasoon Tiwari Pratham Kaushik Tanmay Sisodiya	<i>SYMBIOSIS LAW SCHOOL</i>	HARMONIZATION OF LEGAL POSITIVISM, LEGAL REALISM, AND NATURAL LAW IN THE CONTEMPORARY DEMOCRATIC COMMON LAW SYSTEM
Mouli Singhal Mehwish Siddiqui Nishtha Gupta	<i>Symbiosis International (Deemed) University</i>	THE DRONE PARADOX: BALANCING STATE SOVEREIGNTY WITH HUMANITARIAN IMPERATIVES IN THE AGE OF AUTONOMOUS WARFARE

**SESSION-3 / HALL-5**  
**17.08.2024/ 15.00-17.00**

**Moderator:**

Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819

AUTHOR	AFFILIATION	TITLE
Kiril Degtyarev Vasyl Gnitko Denys Kriutchenko Vitaly Naumenko Olena Sierikova Elena Strelnikova	<i>A.Podhorny Institute of Mechanical Engineering Problems Kharkiv National University of Radio Electronics National University of Civil Defence of Ukraine</i>	LIQUID SLOSHING IN FUEL TANKS UNDER PERIODIC LOADS WITH DAMPING
K. Kumararaja B. Sivaraman	<i>New Prince Shri Bhavani College of Engineering and Technology Annamalai University</i>	OPTIMIZING HEAT PIPE OUTLET TEMPERATURE WITH HYBRID NANOFLUIDS THROUGH DEEP NEURAL NETWORK
Dr. Khalid Elatife Dr. Abdellatif El Marjani Dr. Zakaria Lafdaili	<i>Mohammed V University in Rabat</i>	APPLICATION OF THE DOE METHOD TO OPTIMIZE A RADIAL IMPULSE TURBINE FOR WAVE ENERGY CONVERSION
ADEYINKA, Ebenezer Olasupo	<i>The Oke-Ogun Polytechnic</i>	AN ASSESSMENT OF PASSENGERS' PATRONAGE AND VIABILITY OF RAILWAY TRANSPORTATION SYSTEM IN NIGERIA
AKIGHIRGA, Luter Richard ALIDU, John Paul AKULEGA, Theophilus ORKUMA, Terungwa Gabriel	<i>Joseph Sarwuan Tarka University Makurdi</i>	DESIGN AND IMPLEMENTATION OF 5BITS UP AND DOWN COUNTER USIMG J K FLIP FLOP
Periaman Sirumapea Poerwaningsih S. Legowo	<i>Universitas Kristen Indonesia (UKI)</i>	RISK CHOICE of LOCATION and IMPLEMENTATION of NUCLEAR POWER PLANTS (PLTN): NATIONAL ENERGY TREASURY
Kazhymukan Kelesbayev Research Associate Amin Pattaev Serik Polatuly Assistant Professor Sherzod Ramankulov	<i>Khoja Ahmed Yasawi International Kazakh-Turkish University</i>	NECESSITY AND METHODOLOGICAL PECULIARITIES OF STEM PROJECTS IMPLEMENTATION IN THE SOLAR ENERGY SECTOR
Sudipta Naskar Assistant Professor Sandeepan Saha	<i>Greater Kolkata College of Engineering and Management</i>	LEVERAGING SMART TECHNOLOGIES TO ENHANCE EFFICIENCY AND SUSTAINABILITY IN CONSTRUCTION ENGINEERING
Hadeel Wahish Sara Aljaber Prof. Dr., Naif Adel Haddad	<i>Hashemite University</i>	VR AND EDUTAINMENT FOR CULTURAL HERITAGE, ARCHITECTURE AND URBAN PLANNING INTERPRETATION & TOURISM PROMOTION

<p><b>SESSION-3 / HALL-6</b>  <b>17.08.2024/ 15.00-17.00</b>  <b>Moderator: Major Gheorghe GIURGIU</b></p>
<p><b>Zoom Meeting ID: 858 1117 0419 / Zoom Passcode: 171819</b></p>

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Meryem Tourabi Badiaa Lyoussi Elhoussine Derwich	<i>Sidi Mohamed Ben Abdellah University</i>	SOLVENT POLARITY EFFECTS ON PHENOLIC FINGERPRINT AND BIOLOGICAL ACTIVITIES, USING THREE DIFFERENT EXTRACTIONS FORMULATION FOR EXAMINING OF MENTHA AQUATICA LEAF EXTRACTS
Geeta Shinde Sakshi Ingale Chetana Shewale Aman Upaganlawar Chandrashekhar Upasani	<i>SNJBs Shriman Sureshdada Jain College of Pharmacy</i>	NEPHROPROTECTIVE ACTIVITY OF KUDZU ROOT EXTRACT IN STREPTOZOTOCIN INDUCED DIABETIC NEPHROPATHY IN RATS
Bitop Halder Md.Ashrarul Hasib	<i>Jagannath University</i>	PERSONALIZED MEDICINE: TAILORING TREATMENTS TO INDIVIDUALS
Dr. Shazia Perveen	<i>The Women University Multan</i>	EFFICACY OF CHENOPODIUM MURALE ON STREPTOCOCCUS MUTANS: A SOLE CAUSE OF DENTAL CARIES
K.Pushparaj R.Selva Kumar Manikandan Dr.R.Srinivasan	<i>Bharath Institute of Higher Education and Research</i>	BIOLOGICAL AND MEDICINAL PROPERTIES OF COUROUPITA GUIANENSIS
A.Dinesh babu E.Velmurugan MD.Shanur Rahman Dr.srinivasan	<i>Bharath Institute of Higher Education and Research</i>	NEUROPROTECTIVE AGENTS, NATURAL PLANT HERBS & DRUGS IN ISCHEMIC STROKE: A REVIEW
Hector Miguel Azpe-Santiago Manoj-Kumar Arthikala Kalpana Nanjareddy	<i>ENES Unidad-León, National Autonomous University of Mexico (UNAM)</i>	TRANSCRIPTIONAL DOWNREGULATION OF PVPCO1: EFFECTS ON ROOT AND ROOT HAIR GROWTH IN PHASEOLUS VULGARIS
Major Gheorghe GIURGIU Prof dr med Manole COJOCARU	<i>Deniplant-Aide Sante Medical Center Titu Maiorescu University</i>	THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS

<b>SESSION-1 / HALL-1</b> <b>18.08.2024/ 10.00-12.00</b> <b>Moderator: Dr. İsmail AKÇAY</b>
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AUTHOR	AFFILIATION	TITLE
Res. Asst. Emine BAYDAN Asst. Prof. Esra KESKİN	Ankara University	CREATING HEALTH CORRIDORS BY USING NATURE-BASED SOLUTIONS IN URBAN REGENERATION AND RENEWAL PROJECTS: DISCUSSING ITS APPLICABILITY IN TURKEY
Medine ÇELİK Prof. Dr. Hasan YILMAZ	Ataturk University	CEMETERY PLANNING IN DIFFERENT BELIEFS; MARDIN EXAMPLE
Dilan ÇOBAN Hayriye Betül ÇETİN Selin ŞAMAN Prof. Dr. Fatih CANAN	Konya Technical University Baykara Yapı Architecture Dream House Alüminyum Turizm İnşaat Tarım San.ve Tic. A.Ş.	DETERMINATION OF BUILDING DENSITIES IN RESIDENTIAL AREAS USING THE SOLAR ENVELOPE METHOD TO BENEFIT FROM SUNSHINE
Fatma TUNÇAY	Independent Researcher-Master Interior Architect, Hasan Kalyoncu University	CONSTRUCTION TECHNIQUES AND MATERIALS: AN EXAMPLE FROM MESOPOTAMIA
Prof. Dr. Abdullah Hilmi LAV Hüseyin ÇUHA	İstanbul Technical University	REGRESSION ANALYSIS OF ROAD STRUCTURE: ROUGHNESS PREDICTION WITH MACHINE LEARNING MODELS
Prof. Dr. Nazile URAL Hüseyin ŞANAN	Bilecik Şeyh Edebali University	USE OF JET GROUT METHOD AGAINST LIQUEFICATION
Dr. İsmail AKÇAY	Mersin University	HEAVY METAL DISTRIBUTIONS IN SURFACE SEDIMENTS OF A COASTAL REGION (MERSIN BAY, TÜRKİYE)

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Asst. Prof. Dr. Nevra KARACA BIÇAKÇI Dr. Lecturer Ayşe ÇALMAZ	<i>Kafkas University</i> <i>Hitit University</i>	CULTURAL FOR THE POSTPARTUM PERIOD BELIEFS AND PRACTICES REVIEW
Res. Asst. Dr. Tuğba Melike PARLAK Prof. Dr. Enver YAZAR	<i>Selcuk University</i>	CLOSANTEL-INDUCED BLINDNESS AS A SIDE EFFECT
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Mustafa KARAGÜLLE	<i>Bilecik Seyh Edebali University</i>	COMBINATION OF 5-AZACITIDINE AND VENOTOCLAX IN THE TREATMENT OF ELDERLY ACUTE MYELOID LEUKEMIA
Dr. Muzaffer DOĞGÜN	<i>Girne American University</i>	EFFECT OF VITAMIN D SUPPLEMENT ON GROWTH HORMONE IGF-1 AND CORTISOL HORMONES IN ATHLETES
Ardacan YAMEN Metin POLAT	<i>Sivas Cumhuriyet University</i>	EFFECTS OF HIGH INTENSITY INTERVAL TRAINING ON AEROBIC AND ANAEROBIC CAPACITY
Dr. Nadide Gizem TARAĞÇI FİLİZ	<i>İstanbul Medipol University</i>	OXIDATIVE STRESS AND ANTIOXIDANT USE IN ATHLETES
Büşra SÖNGÜT Assoc. Prof. Dr. Gonca Hülya YAYAN	<i>Gazi University</i>	KORUNMAYA İHTİYACI OLAN 13-17 YAŞ GRUBU ÇOCUKLARININ RESİMLERİNİN ANALİZ EDİLEREK YORUMLANMASINA YÖNELİK ÇORUM ÖRNEĞİ
Res. Asst. Melike BAYRAK Assoc. Prof. Dr. Safiye ÖZGÜÇ	<i>Gaziantep University</i>	EFFECTS OF CLIMATE CHANGE ON PUBLIC HEALTH

**SESSION-1 / HALL-3**  
**18.08.2024/ 10.00-12.00**

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Hazar KESKİN Assoc. Prof. Dr. Hayri ABAR	<i>Gaziantep University</i>	THE EVALUATION OF REGIONAL ELECTRICITY CONSUMPTION IN TÜRKİYE FROM THE PERSPECTIVE OF ENERGY EFFICIENCY
Yunus ARDIÇOĞLU Assoc.Prof.Dr. Tufan DEMİREL	<i>Yıldız Techinal University</i>	A CASE STUDY ABOUT IMPLEMENTATION OF GENETIC ALGORITHM TO OPTIMIZE ELECTRIC VEHICLE CHARGING STATIONS FOR THE EUROPEAN SIDE OF ISTANBUL
Zeynep Görkem DOĞAROĞLU Yağmur UYSAL	<i>Mersin University</i>	SYNTHESIS OF ZINC OXIDE NANOPARTICLES WITH BITTER ORANGE PEEL EXTRACT AND EFFECTIVENESS IN CRYSTAL VIOLET PHOTODEGRADEDATION
Yağmur UYSAL Zeynep Görkem DOĞAROĞLU	<i>Mersin University</i>	UTILIZATION OF GREEN-SYNTHESIZED ZINC OXIDE NANOPARTICLES FROM OLIVE LEAF EXTRACT FOR DYE REMOVAL FROM WASTEWATER
Prof. Dr. Ali Osman KUŞAKCI Merve DAĞ	<i>İbn Haldun University</i>	CABIN CREW SELECTION WITH FUZZY MULTIMOORA: APPLICATION IN AN AIRLINE COMPANY
Özge Kaya MANAV	<i>Bayreuth University</i>	FLUID HORIZONS: THE SYMBOLISM OF WATER IN ARTHUR RIMBAUD'S 'MEMORY' AND 'MOTION'

**SESSION-1 / HALL-4**  
**18.08.2024/ 10.00-12.00**

**Moderator:**

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<b>AUTHOR</b>	<b>AFFILIATION</b>	<b>TITLE</b>
Udoye, Charles Ekene Onyi Chinaza	<i>University of Nigeria</i>	YAM FARMERS ACCESS AND USE OF ICT IN EBONYI STATE, NIGERIA
Dhivya C R Arunkumar	<i>Tamil Nadu Agricultural University</i>	ROLE OF DIGITAL PLATFORMS IN FARMER EDUCATION AND EXTENSION SERVICES
Tony RAYVALDO Bainah Sari DEWI Slamet Budi YUWONO Rudi HILMANTO	<i>University of Lampung</i>	VISITORS' PERCEPTION OF THE DEER BREEDING AT THE UNIVERSITY OF LAMPUNG
NWAFOR, O. C. M. Ibrahim I. S. Umar Tsado, J. H	<i>Federal University of Technology</i>	EFFECTS OF RURAL ACCESS AND MOBILITY PROJECT (RAMP) ON WELL BEING OF CROP FARMERS IN KADUNA STATE, NIGERIA
Mbarka Elmouedden Jamal Mabrouki Driss AZDEM Souad El Hajjaji	<i>Mohammed V University</i>	HARNESSING WIRELESS SENSOR NETWORKS FOR AGRICULTURAL INNOVATION: A TRANSFORMATIVE APPROACH TO SMART FARMING
Kazi Md Abu Sayeed Jannatul Ferdos Md Wabidur Rahman	<i>North South University University of Chittagong University of Barishal</i>	CLIMATE CHANGE IMPACTS AND REDD+ STRATEGIES: A COMPREHENSIVE ANALYSIS OF LAND USE CHANGE IN BANGLADESH
Aliyu Hassan	<i>Air Force Institute of Technology</i>	A CASE STUDY OF THE TUDUN ILU NEIGHBORHOOD IN KADUNA, NIGERIA, EXAMINING THE EFFECTS OF UNCONTROLLED WASTE DISPOSAL AND ITS EFFECTS DURING THE COVID-19 PANDEMIC



<b>SESSION-1 / HALL-5</b> <b>18.08.2024/ 10.00-12.00</b> <b>Moderator: Prof. Nuno BAPTISTA</b>
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AUTHOR	AFFILIATION	TITLE
Meenakshi Mritunjay	<i>University of Lucknow</i>	CIRCULAR ECONOMY MODELS IN E-COMMERCE: CASE STUDIES AND ANALYSIS
NEHAYATUL NAJWA Hendri Hermawan ADINUGRAHA	<i>UIN K.H. Abdurrahman Wahid Pekalongan</i>	THE GOVERNMENT IS MAKING EFFORTS TO DEVELOP THE DIGITAL ECONOMY INTO A DEVELOPED COUNTRY
HAIJAJ Mohammed Amine BEL-MKADDEM Zakariae	<i>Chouaib Doukkali University</i>	AN ANALYSIS OF MOROCCO'S GDP GROWTH: EXAMINING THE IMPACT OF TECHNOLOGICAL INTEGRATION ON ECONOMIC DEVELOPMENT
PhD. MIMOZA KOTOLLAKU MSc Ina Sallo MSc. Megi Fetah MSc.Eris Sallo	<i>University of Elbasan 'Aleksandër Xhuvani' TRANVIX GROUP INC.</i>	CONSUMER SATISFACTION AND LAW REGULATIONS IN E-COMMERCE. THE CASE OF ALBANIA
Dr. DEEPALI TOMAR	<i>Himalayiya University</i>	EXPANSION OF MICRO, SMALL AND MEDIUM ENTERPRISES IN UTTARAKHAND
Prof. Nuno BAPTISTA, PhD. Prof. Mário ANTÃO, PhD.	<i>Polytechnic Institute of Lisbon Lusíada University</i>	PUBLIC SECTOR COCREATION WITH CITIZENS
Prof. Nuno BAPTISTA, PhD. Prof. Mário ANTÃO, PhD.	<i>Polytechnic Institute of Lisbon Lusíada University</i>	THE APPLICATION OF SOCIAL CAPITAL THEORY TO RESEARCH COOPETITION INVOLVING SMALL COMPANIES

<b>SESSION-1 / HALL-6</b> <b>18.08.2024/ 10.00-12.00</b> <b>Moderator: Moses Adeolu AGOI</b>	
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AUTHOR	AFFILIATION	TITLE
Valeria Szeplaki	<i>University of Public Service</i>	GOVERNMENT PRUDENTIAL SUPERVISION OF INSURANCE COMPANIES IN THE EU - THE ISSUE OF SCIENTIFIC RESEARCH METHODS
Moses Adeolu AGOI Benjamin Johnson OLASIJU Solomon Abraham UKPANAHA Oluwanifemi Opeyemi AGOI	<i>Lagos State University of Education</i> <i>Obafemi Awolowo University</i>	THE IMPORTANCE, APPLICATION AND IMPACT OF WEBSITE DEVELOPMENT ON E-COMMERCE: IMPLICATIONS OF ONLINE MARKETING (SHOPPING) TO BUSINESS MANAGERS
Dr. Victoria POSTOLACHE, PhD. Tatiana GULCA	<i>Alecu Russo Balti State University</i> <i>West University of Timisoara</i>	THE INVOLVEMENT OF INFORMATION TECHNOLOGIES IN THE DEVELOPMENT OF INTERNATIONAL RELATIONS
MA. Nguyen Khanh Hung	<i>Thu Dau Mot University</i>	RISKS FOR BUYERS OF FRACTIONAL REAL ESTATE THROUGH SMART CONTRACT
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Dr. Zuhairu Ado Tajuddeen Mohammed Aminu Haruna Ibrahim Tanko Linus	<i>Jigawa State College of Education and Legal Studies</i> <i>University of Abuja</i>	THE IMPACT OF ENVIRONMENTAL FACTORS ON ACADEMIC PERFORMANCE: A PSYCHOLOGICAL PERSPECTIVE IN JIGAWA STATE
Moses Adeolu AGOI Oluwakemi Racheal OSHINOWO Benjamin Johnson OLASIJU Solomon Abraham UKPANAHA	<i>Lagos State University of Education</i>	THE SIGNIFICANCE, APPLICATION AND IMPACT OF INTERNET OF THINGS (IoT) ON INNOVATIVE TEACHING AND LEARNING: A SURVEY ON EDUCATIONAL DEVELOPMENT

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**NEUROPROTECTIVE AGENTS, NATURAL PLANT HERBS & DRUGS IN ISCHEMIC STROKE: A REVIEW**

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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 mecamlamine, 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, mecamlamine.

**YOL YAPISININ REGRESYON ANALİZİ: MAKİNE ÖĞRENMESİ MODELLERİ İLE PÜRÜZLÜLÜK TAHMİNİ**  
REGRESSION ANALYSIS OF ROAD STRUCTURE: ROUGHNESS PREDICTION WITH MACHINE LEARNING MODELS

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**ÖZET**

Bu araştırma, yol yapısının özelliklerini değerlendirmek amacıyla Uluslararası Pürüzlülük İndeksi (IRI) ve Ortalama Profil Derinliği (MPD) parametrelerini kullanarak yol pürüzlülüğünü tahmin etme üzerine odaklanmıştır. Çalışma, özel olarak donatılmış bir ölçüm aracı ile toplanan açık kaynaklı bir veri seti üzerinde yürütülmüştür. Veri seti, aracın kat ettiği mesafe ile birlikte sol ve sağ tekerlek yolları için IRI ve MPD ölçümlerini, ayrıca tekerlek yollarındaki çukur derinliklerini içermektedir.

Araştırma, yol yüzeyinin durumunu anlamak ve tahmin etmek için farklı regresyon modellerini karşılaştırmıştır. Bu modeller arasında lineer regresyon, ridge ve lasso regresyon, destek vektör regresyonu, rastgele orman ve gradyan artırma yöntemleri yer almaktadır. Her bir modelin performansı, Ortalama Kare Hata (MSE) ve Belirleme Katsayısı ( $R^2$ ) ile değerlendirilmiştir. Analiz sonuçları, rastgele orman ve gradyan artırma yöntemlerinin diğer modellere göre daha yüksek  $R^2$  değerleri ve daha düşük MSE değerleri ile daha iyi performans sergilediğini göstermiştir. Bu bulgular, yol yüzeyinin karmaşık özelliklerini modellemekte bu yöntemlerin üstünlüğünü işaret etmektedir.

Çalışma sonucunda, yol mühendisliği ve bakım stratejilerinin geliştirilmesine yönelik önemli katkılarda bulunulmuştur. Araştırmanın bulguları, yol yüzeyi özelliklerinin doğru bir şekilde tahmin edilmesinin yol güvenliği açısından hayati önem taşıdığını vurgulamaktadır. Ayrıca, çalışma, yol bakım planlaması ve maliyet etkinliği üzerinde olumlu etkiler yaratabilecek veri setlerinin kullanımının değerini ortaya koymuştur. Bu tür analitik yaklaşımlar, gelecekteki yol bakım ve iyileştirme çalışmalarında kritik rol oynamaya devam edecektir.

**Anahtar Kelimeler:** Yol Pürüzlülüğü, Regresyon Analizi, Makine Öğrenmesi, IRI (Uluslararası Pürüzlülük İndeksi), MPD (Ortalama Profil Derinliği)

**ABSTRACT**

This research focuses on the evaluation of road infrastructure characteristics using the International Roughness Index (IRI) and Mean Profile Depth (MPD) parameters to predict road roughness. The study is conducted using an open-source dataset collected by a specially equipped measurement vehicle. This dataset includes measurements of the distance traveled by the vehicle, as well as IRI and MPD measurements for both the left and right wheel paths, and the depth of ruts in each wheel path.



The research compares various regression models to understand and predict the condition of the road surface. These models include linear regression, ridge and lasso regression, support vector regression, random forest, and gradient boosting methods. Each model's performance is evaluated based on Mean Squared Error (MSE) and Coefficient of Determination ( $R^2$ ). The analysis reveals that random forest and gradient boosting methods outperform other models, demonstrating higher  $R^2$  values and lower MSE, indicating their superiority in modeling complex characteristics of the road surface.

The findings of this study contribute significantly to the development of road engineering and maintenance strategies. The results underscore the vital importance of accurately predicting road surface characteristics for road safety. Furthermore, the study highlights the value of utilizing such datasets for road maintenance planning and cost-effectiveness. These analytical approaches will continue to play a crucial role in future road maintenance and improvement efforts.

**Keywords:** Road Roughness, Regression Analysis, Machine Learning, IRI (International Roughness Index), MPD (Mean Profile Depth)

**ARTISTIC HISTORICAL RECREATION AND REVOLUTIONARY PRESSURES IN  
HUSSIEN'S KINJEKETILE**

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**ABSTRACT**

Colonial and neo-colonial capitalism and their attendant exploitation and neglect form the nucleus of the revolutionary pressures in the play under study. This study examines the nature of these ideologies and how they define the vicious circle of exploitation, oppression, neglect etc. in Ebrahim Hussein's *Kinjeketile* and how this Marxist playwright reveals to the masses how they may end their oppression and exploitation by the capitalists or the bourgeois class. It examines in depth how the masses approach their liberation ideology. Colonialism and neo-colonialism are capitalist pursuit of economic and political powers and have also featured as major revolutionary pressures in Africa. The theoretical framework for this study is Marxism. Marxism provides humanity with a social, an economic, a political and a cultural understanding of the nature of reality, of society and of the individual. Marxism teaches us to revolt against the hegemonic ideological social and political order of things in the society as a framework of assessing and reassessing and making better our world and reality. This paper analyses the play through the examination of the revolutionary pressures. Through this analysis the paper exposes the class conflict (the bourgeoisie or the ruling class with its accompanying ideological ill-exploitation, oppression and suppression the proletariat or the masses) and how the playwright denounces and shows how destructive the bourgeois class ideology is to the proletariat or the masses. Through this analysis, the playwrights reveal to the proletariat or masses how they may end their oppression, suppression and exploitation by the capitalists-bourgeoisie or the ruling class. *Kinjeketile* is an artistic recreation of the historical *Kinjeketile* Ngwale. He lived at Ngarambe near a pool in a tributary of the River Rufigi in what is known as Southern Tanzania. He is said to have been possessed by the water spirit-Hongo and united the people against the Germans-the colonizers in 1904. He was a revolutionary nationalist. The war against the Germans was genocide. *Kinjeketile* is a historical tragedy.

Keywords: revolutionary pressures, history, bourgeoisie, proletariat, exploitation, Colonial and neo-colonial capitalism

**SEDIMENTOLOGY AND CHARACTERIZATION PHYSICO-CHEMICAL AND TEXTURAL PROPERTIES OF BENTONITES KERT NEOGENE BASIN**

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**Abstract**

This study deals with the particle size analysis and characterization of bentonites from the Kert Basin, focusing on their physicochemical and textural aspects. It is based on raw samples taken from two different deposits. These analyses are carried out with the aim of monitoring the physico-chemical evolution and qualifying the structure and texture of the clay.

Clay is a raw material that has long been used in a wide variety of everyday activities (agriculture, industry, pharmaceuticals, construction, etc.). In general, clays are sedimentary rocks, encompassing two connotations, one related to grain size and the other to mineralogy. It should be emphasized that the aim of this thesis is to study the clay resources associated with the Mediterranean zone of the northeastern Rifian domain (bentonite deposits).

The bentonite deposits studied are characterized by high contents of the silt fraction (2-60µm), with moderate contents of the fraction below 2µm. Water contents and SST are relatively high in all samples and are significantly influenced by the particle size distribution of the bentonite particles. Together with the high CEC values suggest that our bentonites are rich in montmorillonites. Note that these clays are relatively low in organic matter Analysis of these results enables us to classify Moroccan bentonites as inactive swelling clays rich in montmorillonites.

**Keywords:** Moroccan bentonites, inactive swelling, Rifian domain, montmorillonites.

## PERSONALIZED MOVIE RECOMMENDATION SYSTEM

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### Abstract

This paper presents a novel movie recommendation system designed to provide personalized suggestions based on individual user preferences. By leveraging advanced machine learning techniques, the system analyzes users' historical viewing data, ratings, and implicit feedback to create tailored recommendations. The system employs a hybrid approach, combining collaborative filtering to identify users with similar tastes and content-based filtering to recommend items with similar attributes. Additionally, the system incorporates natural language processing to understand user reviews and comments, further enhancing the accuracy and relevance of recommendations. The proposed system offers a more engaging and personalized movie-watching experience, helping users discover new content that aligns with their interests.

**Keywords:** Movie recommendation, Collaborative filtering, Content-based filtering, Hybrid recommender systems, Machine learning

**DESIGN AND IMPLEMENTATION OF 5BITS UP AND DOWN COUNTER USING  
J K FLIP FLOP**

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**ALIDU, John Paul**  
**AKULEGA, Theophilus**  
**ORKUMA, Terungwa Gabriel**

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This research focuses on the design and building of a 5BITS synchronous UP/DOWN (Even/Odd) counter using JK flip flop. An UP and DOWN counter is a counter that performs two basic functions; an increment counting and a decrement counting based on the designer's preference or the function which it is made to perform. This design uses the JK flip flop as its basic building block, it uses the power circuit which is designed with a voltage regulator (78L05) which gives the required output voltage of 5volts, it uses also the digital clock which is designed with a 555 timer (NE555) to produce or generate a constant frequency of 1Hz, the led to display the output to ensure a correct design and it uses also the BCD-to-7segment decoder which is then connected to the 7-segment display which displays the output of the design. This project also uses other components such as resistors and capacitors among others. The objectives of this research includes; to design an up/down (even/odd) counter with a JK flip flop, to simulate the design on Proteus, implement and test it on the bread board and finally build it on the Vero board as a prototype. In the design algorithm, the power circuit is followed by the digital clock circuit then the combined JK flip flops after which the LEDs are used to test the accuracy and the workability of the design and lastly is the BCD decoder to display the result of the design.

This design has proven that discrete components and state devices can be used to design and build a counter to count up and down without a microprocessor to solve problems in reality in the aspect of record keeping and tracking of events. A good sequence of counting is recommended if further modifications or research is to be done on this project to make it more profitable and marketable.

**A CASE STUDY OF THE TUDUN ILU NEIGHBORHOOD IN KADUNA, NIGERIA,  
EXAMINING THE EFFECTS OF UNCONTROLLED WASTE DISPOSAL AND ITS  
EFFECTS DURING THE COVID-19 PANDEMIC.**

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**Abstract**

The impact of careless waste management on our surroundings began with inadequately designed residential areas, inadequate drainage systems, and the disposal of waste into waterways and drainage systems, which resulted in flooding in Nigeria's largest cities. The COVID-19 pandemic has made unregulated trash disposal in urban areas more difficult and dangerous for the environment and public health. In light of the epidemic, this study investigates the effects of inappropriate waste management techniques in the Tudun Ilu community in Kaduna, Nigeria. In order to better understand the impact of indiscriminate waste disposal on both humans and the environment, the following factors were brought to light during the COVID-19 pandemic: (i) Tudun Ilu's status with regard to indiscriminate waste disposal as a result of poor environmental setting and improper residential planning, which significantly contributed to the cholera crisis due to the fluctuating resource consumption brought on by the pandemic. (ii) limitation of movement during pandemic induced consumer's behavioural changes resulting in panic over-buying of groceries, food stockpiling, incorrect storage, and overcooking which finally ended up as households waste. Both quantitative and qualitative research approaches served as the basis for the research methodology. The majority of approaches are qualitative. The study examines the effects of increasing trash creation, inadequate disposal infrastructure, and community responses during the pandemic using qualitative research methods such as interviews and observations. The results highlight the critical need for efficient waste management plans in similar metropolitan environments in order to reduce environmental pollution and improve public health.

**Keywords:** Electoral politics, Women's empowerment, Socio-cultural, Policymakers, civil society organizations, sustainable development, gender-responsive policies.

**HOW DO MILITARY EXPENDITURES AND OIL CONSUMPTION AFFECT  
ECONOMIC GROWTH DURING RUSSIA AND UKRAINE CONFLICT? A PANEL  
ARDL STUDY**

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Since the battle between Russia and Ukraine has been raised in recent years, it has been a problematic issue whether there was a linkage among economic growth, the military expenditures and oil consumption or not. Although the conflict is between those two countries, other countries such as Germany, Poland and Sweden have been being expected to be affected with respect to economic variables especially the latter. To analyze the effects of defense expenditures and oil consumption on economic growth, a Panel ARDL method has been established for those countries in time of 1993 and 2022. One of the results of the analysis has indicated that both variables have significant effects on economic growth in short-term. While the direction of the effect of military expenditures is positive, the effect oil consumption is negative. However, the long-term effects are not only significant but also positive in terms of direction for both explanatory variables. Policy makers should take this difference between long run and short run effects into account.

Key Words: Military expenditures, economic growth, Panel ARDL

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**REVEALING TIME DISPARITIES, WHILE UNPACKING THE SOCIAL  
CONSTRUCT OF TEMPORALITY**

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**Abstract**

Time, often perceived as a neutral and objective concept is, in fact, a socially constructed entity that reinforces and reflects gendered power dynamics. This paper will examine the gender and politics of time, highlighting how temporal experiences and allocations differ between men and women. Firstly, Traditional gender roles dictate that women devote more time to caregiving and domestic work, while men prioritize paid employment, resulting in women's time poverty and limited temporal autonomy. This disparity has far-reaching consequences, influencing political participation, education, and personal development. The gendered politics of time are deeply intertwined with policy and practice. For example, Parental leave policies, flexible work arrangements, and social services can either perpetuate or challenge existing temporal inequalities. Furthermore, intersectional factors like race, class, and sexuality complicate gendered time experiences, necessitating a nuanced understanding of these dynamics.

This paper draws on feminist theory and scholarship, engaging with the work of Julia Kristeva, bell hooks, and Judy Wajcman, Valerie Bryson among others. It argues that recognizing and addressing the gendered politics of time is crucial for promoting gender equality and challenging existing power structures. By examining the ways in which time is constructed, perceived, and utilized, we can begin to dismantle the gendered temporal hierarchies that perpetuate inequality. Ultimately, this research aims to contribute to a deeper understanding of the gender and politics of time, highlighting the need for gender-sensitive time policies and practices that prioritize temporal justice and equality. By doing so, we can work towards a more equitable distribution of time, enabling individuals to pursue their goals and aspirations without being constrained by gendered temporal expectations.

Key Words: Gender, Time, Space, social construct, inequality



**REDUCTION OF CRYSTAL VIOLET DYE FROM WATER BY  
NANOSTRUCTURED CARBON: INFLUENCING FACTORS AND ADSORPTION  
BEHAVIOUR**

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**Abstract:** The increasing discharge of synthetic dyes into aquatic ecosystems, driven by industrial activities, poses significant environmental concerns. Crystal violet (CV), a cationic dye with intricate aromatic properties, poses threats to both aquatic life and human health. This study explores the efficacy of nanostructured carbon (NAT) as a remedial agent for CV removal from water. Through comprehensive characterization techniques, NAT was utilized and subjected to batch adsorption experiments, investigating key parameters such as contact time, initial concentration, pH, and temperature.

The results indicate a pHPzc of 7.23 for NAT, with kinetic data fitting well to the pseudo-second-order model. The Langmuir isotherm model aptly describes the adsorption behaviour, with a maximum adsorption capacity ( $Q_{max}$ ) of 113.78 mg/g. pH significantly influences the adsorption process, while 25°C is identified as the optimal temperature for CV removal. NAT emerges as an environmentally friendly adsorbent, holding promise for future industrial-scale applications in water treatment.

**Keywords:** Nano-adsorbent, Nano-structured carbon material, Crystal violet, Adsorption, Elimination.

**NUMERICAL INVESTIGATION OF NANOFLUID FLOW WITH GOLD NANOPARTICLES INJECTED INSIDE A STENOTIC ARTERY**

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**Abstract:** The primary objective of the existing framework is to examine the significance of gold nanoparticles immersed in human blood when magnetohydrodynamics (MHD) flow occurs within a stenotic artery. Gold nanoparticles are employed as nanomaterials for medication delivery primarily because of their potential for drug transport and imaging. The blood's warmth and velocity gradually decrease as the size of the gold nanoparticles increases. In addition, the effects of thermal radiation and heat source-sink are taken into account. Using a technique of appropriate similarity transformations, the partial differential equations (PDEs) were transformed into dimensionless ordinary differential equations (ODEs). Then, the ODEs were solved numerically and graphically using the `bvp4c` built-in solver in the mathematical program MAPLE. Then, using a shooting technique, higher order ordinary differential equations (ODEs) were solved. Graphs elaborate on the physical regulating parameters' results, such as temperature and velocity profiles. As the Biot number and thermal radiation parameter increase, the Biot number is estimated more highly, and the Nusselt number rises, but when the suction or injection parameter is used, it decreases. For the delivery of drugs, the gold nanoparticles are highly helpful, and the thermal distribution profile exhibits an increasing behavior. The current method has the potential to be very helpful in effective blood medication delivery.

**Keywords:** Nanofluid ; Gold nanoparticles ; MHD Thermal radiation ; Blood ; HPM

**YÜKSEK ŞİDDETLİ İNTERVAL ANTRENMANLARIN AEROBİK VE  
ANAEROBİK KAPASİTEYE ETKİSİ\***  
EFFECTS OF HIGH INTENSITY INTERVAL TRAINING ON AEROBIC AND  
ANAEROBIC CAPACITY

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**ÖZET**

Aerobik ve anaerobik kapasite sporcuların performanslarını belirleyen önemli unsurlardandır. Anaerobik kapasitenin gelişimi için kullanılan yöntemlerden birisi yüksek şiddetli interval antrenmanlardır (HIIT). Bununla birlikte, HIIT uygulamalarının anaerobik kapasitenin yanı sıra aerobik kapasiteyi de geliştirebileceği yönünde çalışmalar bulunmaktadır. Bu nedenle HIIT uygulamalarının aerobik ve anaerobik performansa hangi oranda katkı sağladığının bilinmesi önem kazanmaktadır. Bu çalışmada sadece HIIT uygulanmasının hem aerobik hem de anaerobik performans üzerindeki etkilerinin ayrı ayrı belirlenmesi amaçlanmıştır.

Çalışmaya 18-25 yaş aralığında olan 30 sağlıklı birey gönüllü olarak katıldı. Gönüllüler 15 kontrol ve 15 deney grubu olmak üzere iki gruba ayrıldı. Deney grubuna 8 hafta boyunca, haftada 3 gün ve tek bir birim antrenmanın süresi 2 saat olacak şekilde, HIIT programı uygulandı. Kontrol grubuna ise hiçbir uygulama yapılmadı ve rutin yaşantılarına devam etmeleri istenerek herhangi bir egzersiz programına katılmamaları sağlandı. Çalışmaya başlamadan önce her iki gruptan da antropometrik ölçümlerden; boy uzunluğu, vücut ağırlığı, vücut yağ oranı, kardiyopulmoner ölçümlerden; maksimal oksijen tüketim kapasitesi (MaksVO<sub>2</sub>), anaerobik eşik seviyesinde tüketilen O<sub>2</sub> miktarı, solunum kompenzasyon noktasında tüketilen O<sub>2</sub> miktarı, anaerobik eşığe girilen zaman, solunum kompenzasyon noktasına girilen zaman, anaerobik eşikteki koşu hızı, solunum kompenzasyon noktasındaki koşu hızı, maksimal koşu hızı ve tükenme zamanı değerleri alındı. Wingate anaerobik test ölçümlerinden ise, maksimum güç, ortalama güç, minimum güç ve güç kaybı değerleri tespit edildi. Deney grubuna 8 hafta boyunca uygulanan HIIT antrenman programından sonra yukarıda bahsedilen ölçümler her iki gruptan da tekrar alındı.

Wingate test sonuçlarından maksimum güç (p<0,01) ve ortalama güç (p<0,01) değerlerinin ön test-son test ölçümlerinde anlamlı farklılık gözlemlendi. Kardiyopulmoner test sonuçlarından ise MaksVO<sub>2</sub> (p<0,05) ve Solunum eşiginde tüketilen O<sub>2</sub> miktarı (p<0,05) ön test-son test değerlerinde anlamlı farklılık gözlemlendi.

Elde edilen veriler, uygulanan HIIT uygulamalarının hem aerobik hem de anaerobik güç değerleri üzerinde anlamlı bir artış sağladığını, bununla birlikte anaerobik güç üzerindeki artış oranının aerobik kapasite üzerindeki artıştan daha fazla olduğunu göstermektedir.

**Anahtar Kelimeler:** Atletik Performans, Anaerobik Güç, Aerobik Kapasite, HIIT

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## ABSTRACT

Aerobic and anaerobic capacity are important factors that determine athletes' performance. One of the methods used to develop anaerobic capacity is high intensity interval training (HIIT). In addition, there are studies that HIIT practices can improve aerobic capacity as well as anaerobic capacity. Therefore, it is important to know to what extent HIIT practices contribute to aerobic and anaerobic performance. The aim of this study was to determine the effects of HIIT practices on both aerobic and anaerobic performance separately.

Thirty healthy individuals between the ages of 18-25 participated voluntarily in the study. The volunteers were divided into two groups, 15 control and 15 experimental groups. The experimental group was given a HIIT program for 8 weeks, 3 days a week, with a single unit of training during 2 hours. The control group was not included to any practice and was asked to continue their routine life and not to participate in any exercise program. Before starting the study, anthropometric measurements; height, body weight, body fat ratio; cardiopulmonary measurements; maximal oxygen consumption ( $VO_{2max}$ ), amount of  $O_2$  consumed at the anaerobic threshold, amount of  $O_2$  consumed at the respiratory compensation point, time to begin the anaerobic threshold, time to begin the respiratory compensation point, running speed at the anaerobic threshold, running speed at the respiratory compensation point, maximal running speed and exhaustion time values were taken from both groups. Maximum power, average power, minimum power and power drop values were determined from Wingate anaerobic test measurements. After the HIIT training program applied to the experimental group for 8 weeks, the above-mentioned measurements were taken again from both groups.

According to Wingate test results, a significant difference was observed in the pre-test-post-test measurements of maximum power ( $p<0.01$ ) and average power ( $p<0.01$ ). A significant difference was observed in the pre-test and post-test values of  $VO_{2max}$  ( $p<0.05$ ) and the amount of  $O_2$  consumed at the respiratory threshold ( $p<0.05$ ) from the cardiopulmonary test results.

The data obtained show that HIIT practices provide a significant increase in both aerobic and anaerobic power values, however, the increase rate on anaerobic power is greater than the increase on aerobic capacity.

**Key Words:** Athletic Performance, Anaerobic Power, Aerobic Capacity, HIIT

**A STUDY ON THE EFFECTIVENESS OF NANOSTRUCTURED COMPOSITES IN  
ENHANCING CONCRETE STRUCTURES' CORROSION RESISTANCE  
PROPERTIES**

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**Abstract**

Corrosion of reinforced concrete structures poses a significant challenge worldwide, leading to extensive maintenance costs and structural deterioration. Nanostructured composites have emerged as promising additives in concrete formulations to enhance corrosion resistance properties. This paper reviews recent developments in utilizing nanostructured composites for improving concrete durability, discusses synthesis methods, mechanisms of corrosion protection, and explores their applications in construction. The study highlights the role of nanotechnology in advancing sustainable infrastructure solutions and identifies future research directions for optimizing nanostructured composite concrete.

**GÖÇ VE SOSYOEKONOMİK KALKINMA İLİŞKİSİ**  
RELATIONSHIP BETWEEN MIGRATION AND SOCIOECONOMIC DEVELOPMENT

**Aslı KARATAŞ**

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**ÖZET**

Göç kavramı yüzyıllardır yaşanan ve farklı etkileri ile toplumsal gelişmeyi sosyoekonomik açıdan etkileyen bir gerçekliktir. Göç olgusu göç veren bölge ve göç alan bölge açısından farklı sonuçlar doğurmaktadır. Göç hareketlilikleri incelendiğinde en çok ekonomik ve güvenlik nedenleri ile göçün gerçekleştiği gözlenmektedir. Göç, sadece coğrafi mekân değişimi değildir. Göç hareketliliği ekonomik, sosyal, kültürel, siyasal ve sosyal yönleriyle bir toplumun temel dinamiklerini doğrudan ve dolaylı değişime ve dönüşüme uğratan bir olgudur. Kontrolsüz ve plansız göç, göç alan bölge ya da ülke açısından hızlı ve çarpık kentleşme, kaynakların yetersizliği, gelir dağılımında adaletsizlik, toplumda sosyal ve kültürel yozlaşma, yeni kentli yoksulluğu, güvenlik zafiyetlerinin oluşması, kayıt dışı ekonomi gibi birçok sosyoekonomik sorunun ortaya çıkmasına neden olmaktadır. Ülkenin dengeli bir kalkınma politikası izleyebilmesi, yerel kalkınmanın ivme kazanması, bölgesel kalkınma farklılıklarının giderilmesi ve toplumsal yozlaşmanın önüne geçilmesi için göç hareketliliğinin azaltılması ve kontrol edilmesi gereklidir.

Bu çalışma yöntem olarak teorik bir çalışmadır. Bu anlamda çalışmayı gerçekleştirmek için literatür incelemesi yapılmış, teorik veriler ve saha çalışmaları araştırılarak alandaki tespitler ve gözlemlerden faydalanılmıştır. Çalışmada göç ve sosyoekonomik kalkınma arasındaki ilişki incelenmiştir. Türkiye'deki göç hareketliliği sonucu ortaya çıkan sosyoekonomik etkiler ele alınmıştır. Özellikle ülke ekonomisi, sosyal yapı ve toplumsal gelişme ekseninde göç hareketlerinin yarattığı ve yaratabileceği olumsuz etkiler ve sorunlar ele alınmıştır. Göçün sosyoekonomik gelişme ve kalkınma üzerindeki olumsuz etkilerini önlemek adına alınabilecek tedbirler tartışılmıştır.

**Anahtar Kelimeler:** Göç, Kalkınma, Sosyoekonomik Kalkınma, Toplumsal Gelişme

**ABSTRACT**

The concept of migration is a reality that has been experienced for centuries and affects social development socioeconomically with its different effects. The phenomenon of migration has different consequences for the region that sends migrants and the region that receives migrants. When migration movements are examined, it is observed that migration mostly occurs for economic and security reasons. Migration is not just a change in geographical location. Migration mobility is a phenomenon that directly and indirectly changes and transforms the basic dynamics of a society with its economic, social, cultural, political and social aspects. Uncontrolled and unplanned migration causes many socio-economic problems such as rapid and unplanned urbanization, insufficiency of resources, injustice in income distribution, social and cultural degeneration in society, new urban poverty, the emergence of security vulnerabilities and informal economy in terms of the region or country receiving migration. Migration mobility must be reduced and controlled in order for the country to follow a balanced

development policy, to accelerate local development, to eliminate regional development disparities and to prevent social degeneration.

This study is a theoretical study in terms of method. In this sense, a literature review was conducted to carry out the study, theoretical data and field studies were investigated and findings and observations in the field were used. The relationship between migration and socioeconomic development was examined in the study. The socioeconomic effects resulting from migration movements in Turkey have been discussed. The negative effects and problems that migration movements have created and may create, especially in terms of the country's economy, social structure and social development, have been discussed. The measures that can be taken to prevent the negative effects of migration on socioeconomic development and progress have been discussed.

**Keywords:** Migration, Development, Socioeconomic Development, Social Development

**JOHNSON L- DÖNÜŞÜMÜ KULLANILARAK ÖMÜR HESABI İÇİN DÜZELTME  
FAKTÖRÜ HESAPLAMA**  
CORRECTION FACTOR FOR FATIGUE LIFETIME ESTIMATION USING JOHNSON  
L-TRANSFORM

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**ÖZET**

Yapılar, makineler ve bağlantı parçaları üzerine etkiyen zamana bağlı kuvvetler yorulmaya, çatlak oluşumuna ve kırılmaya yol açar. Bu nedenle yorulma ömrü hesabı önemli bir mühendislik alanıdır. Rainflow çevrim sayımı çok tercih edilen bir ömür hesaplama yöntemidir<sup>1)</sup>. Hesap yükü ağır olduğundan hızlı Fourier dönüşümüne dayalı frekans bölgesi yöntemleri de kullanılmaktadır.

Frekans bölgesi yöntemlerinin güvenilir sonuç verdiği sadece stresin Gauss dağılımlı olduğu durumda gösterilmiştir. Rüzgar ve dalga etkisi ile oluşan stresler Gauss dağılımlı değildir. Bu nedenle, doğrusal olmayan bir dönüşümle stres verisini Gauss formuna getirip, yorulma ömrü hesaplandıktan sonra verinin çarpıklık ve basıklığına bağlı bir düzeltme katsayısı kullanılarak yapının Gauss dağılımlı olmayan yük altındaki ömrünü bulmak kullanılan bir yöntemdir<sup>2)</sup>.

Birçok olayda, stress sadece pozitif değerler alabildiğinden yarı-sınırlı bir dağılım sözkonusudur. Üstel ve kuvvet yasası dönüşümlerle bu dağılımlar Gauss formuna getirilebilir. Johnson, her dağılımı normal forma getiren bir dönüşüm ailesi geliştirmiştir. Bu gruptaki lognormal (Johnson L-) dönüşümü,

$$x_G = \gamma + \eta \ln(z_L - \xi)$$

lognormal dağılımlı, yarı-sınırlı  $z_L$  dağılımını,  $x_G$  Gauss dağılımına dönüştürür.

Çalışmada, lognormal dağılımlı stres verisi için düzeltme faktörünün hesaplanması amaçlanmıştır. Önce rastgele Gauss stres verisi üretilmiş, sonra bu veriden Johnson L- dönüşümünün tersi;

$$z_L = \xi + \exp((x_G - \gamma)/\eta)$$

kullanılarak lognormal stres dağılımı bulunmuştur. Daha sonra her iki stres dağılımına maruz kalan malzemenin yorulma ömrü rainflow çevrim sayma yöntemi ile hesaplanarak karşılaştırılmış ve düzeltme katsayısı iki ömrün oranı olarak bulunmuştur. Dönüşümdeki üç parametreden sadece  $\eta$ , üretilen lognormal dağılımın basıklık ve çarpıklığını etkilediğinden geniş bir  $\eta$  aralığı taranarak düzeltme katsayısını  $\eta$ 'ya bağlı olarak veren bir formül türetilmiştir.

**Anahtar Kelimeler:** Yorulma Ömrü, Rainflow Çevrim Sayma, Gauss Dağılımı



**ABSTRACT**

Structures and machines are subject to time varying forces which cause fatigue, crack formation and failure. For this reason, estimating fatigue lifetimes of structures is very important in engineering. Rainflow cycle counting is one of the preferred methods for fatigue lifetime estimation<sup>1)</sup>. However, it is computationally intensive and frequency domain methods taking advantage of fast Fourier transform are computationally more efficient.

Frequency domain methods have been shown to give reliable results only for Gaussian stress distribution. Stresses created by wind or wave action on structures are non-Gaussian. For this reason, the actual data is converted to Gaussian form by a non-linear transform. The fatigue lifetime is calculated under the Gaussian load history and then a correction factor depending on the kurtosis and skewness of the original data is applied to compensate for the non Gaussianity<sup>2)</sup>.

In many phenomena, the stress loading is semi bounded (always positive). Many transforms have been developed to convert semi-bounded non-Gaussian data to Gaussian form. Johnson introduced a family of three transformations to convert any non-Gaussian data to Gaussian form<sup>3)</sup>. His transformation with lognormal (Johnson L-Transform);

$$x_G = \gamma + \eta \ln(z_L - \xi)$$

is for converting lognormal distributed, semi-bounded, non-Gaussian data  $z_L$  to Gaussian form  $x_G$ .

The aim of this work is to find the correction factor for lognormal distributed data. Synthetic random Gaussian data are created and then the inverse of Johnson's L-transform;

$$z_L = \xi + \exp((x_G - \gamma)/\eta)$$

is used to convert it to lognormal form.

The rainflow fatigue lifetimes under the initial Gaussian stress and the non-Gaussian stress found by the inverse transform are compared. The ratio of the two lifetimes is calculated as the correction factor. In the inverse transform, only  $\eta$  affects skewness and kurtosis of the resulting distribution. The correction factors for a wide range of  $\eta$  are calculated and a formula giving the correction factor as a function of  $\eta$  is given.

**Keywords:** Gaussian Distribution, Non-Gaussian Distribution, Fatigue Life Estimation, Rainflow Cycle Counting.

## DİJİTAL DÖNÜŞÜMÜN MUHASEBE MESLEĞİNE ETKİLERİ

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2011 yılında dile getirilen Endüstri 4.0 kavramı, ağ tabanlı teknolojilerinin bütün üretim alanlarında ve sosyal hayatta kullanımını ifade etmektedir. Yüksek teknoloji kullanımını gerektiren Endüstri 4.0 üretim, dağıtım, tüketim, geri dönüşüm ve tüm bu süreçlerin kayıt altına alınmasında kullanılmaktadır. Endüstri 4.0'ın önemli ayağı olan dijitalleşme ile muhasebe mesleğinde de dijital dönüşüm uygulamalarına geçilmesi, geleneksel muhasebe uygulamalarını kökten denilebilecek ölçüde değiştirmektedir. Muhasebe süreçlerini daha verimli, daha etkin, doğru ve ölçeklenmesi kolay hale getirmesi dijitalleşmenin başlıca genel etkileri olarak ifade edilebilir. Dijitalleşme, muhasebe süreçlerinde manuel olarak yapılan işlemlerin büyük çoğunluğu otomatikleştirilmiş sistemler ile daha hızlı ve yanlışsız olarak yapılabilen ve insan kaynaklı hatalar en aza indirilebilmektedir. Bulut tabanlı muhasebe yazılımları ile muhasebe süreçlerine mobil erişim sağlanarak, süreç kolaylaşmakta, muhasebe işlemlerinin her yerde ve her zaman yönetilmesi imkânı yaratılmaktadır. Yapay zekâ ve makine öğrenimi, muhasebe süreçlerinde tahminlere imkân tanımakta, veri girişini otomatikleştirmekte, mesleğin daha verimli hale gelmesi konusunda yardımcı olabilmektedir. Muhasebe mesleğinde yaşanan dijital teknoloji dönüşümü genel olarak mesleğe esneklik, verimlilik, hatasızlık katarak muhasebecilere daha stratejik bir yol haritası sunabilmesi gibi pozitif etkilerinin yanı sıra, meslek elemanlarının teknolojik dönüşüme adaptasyon sorunu, otomasyonun yarattığı insan emeği talebinin azalması gibi olumsuz etkilerinden de söz edilebilir. Bu çalışmada öncelikle dijital dönüşümün, muhasebe mesleği üzerindeki olumlu ve olumsuz etkileri ele alınarak meslekteki dijitalleşme nedeniyle yaşanabilecek olumsuzluklara karşı tedbirler alınabilmesi noktasında dijital dönüşümün etkilerinin önemi ortaya konulmaktadır. Öte yandan çalışmanın muhasebe mesleğinde yaşanan dijital değişime ayak uydurabilme konusunda bir farkındalık yaratmak suretiyle literatüre katkı sağlayacağı düşünülmektedir.

**Anahtar Kelimeler:** Dijital dönüşüm, Muhasebe Mesleği, Endüstri 4.0

## THE EFFECTS OF DIGITAL TRANSFORMATION ON THE ACCOUNTING PROFESSION

The concept of Industry 4.0, introduced in 2011, refers to the use of network-based technologies in all areas of production and social life. Industry 4.0, which requires the use of high technology, is used in production, distribution, consumption, recycling and recording of all these processes. Digitalization, which is an important pillar of Industry 4.0, and the transition to digital transformation practices in the accounting profession are radically changing traditional

accounting practices. The main general effects of digitalization can be stated as making accounting processes more efficient, effective, accurate and easy to scale. With digitalization, most of the manual transactions in accounting processes can be performed faster and more accurately with automated systems and human errors can be minimized. Cloud-based accounting software enables mobile access to accounting processes, facilitating the process and creating the opportunity to manage accounting transactions anywhere and anytime. Artificial intelligence and machine learning enable predictions in accounting processes, automate data entry, and help the profession become more efficient. In addition to the positive effects of digital technology transformation in the accounting profession such as providing a more strategic road map to accountants by adding flexibility, efficiency and accuracy to the profession in general, there are also negative effects such as the problem of adaptation of professional staff to technological transformation and the decrease in the demand for human labor created by automation. In this study, first of all, the positive and negative effects of digital transformation on the accounting profession are discussed and the importance of the effects of digital transformation is revealed in terms of taking measures against the negativities that may be experienced due to digitalization in the profession. On the other hand, it is thought that the study will contribute to the literature by creating an awareness about keeping up with the digital change in the accounting profession.

Keywords: Digital transformation, Accounting Profession, Industry 4.0

## VİYOLONSEL İCRASINDA DOĞRU DUATENİN ÖNEMİ VE ETKİLERİ

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Viyolonsel eğitiminin temel taşlarından biri, eğitimcinin çalışma yöntemini doğru bir şekilde öğrenciye aktarabilmesidir. Öğrenci, sağ ve sol el koordinasyonunu bu bilgiler eşliğinde kendi çalışma sistemine entegre etmelidir. Aksi takdirde icra sırasında yaşanan teknik yetersizlikler sonucu istenilen performansa ulaşılamaz ve akış bozulur. İcra sırasında akışı bozan en büyük etkenlerden biri yanlış duate (parmak) seçimidir. Doğru duate seçiminin yapılamaması, entonasyon probleminin başlıca sebebidir. Bu durum, solo ve birden fazla kişiden oluşan gruplarda bütünselliği bozarak müziğin akışını engeller ve müzikaliteyi bozar. Bu tür hatalara neden olmamak için, sol el pozisyon geçişlerinde kullanılan duatelere hâkim olunması, buna yönelik egzersizlerin gün içinde yapılan çalışmalarda uygulanarak icra sırasında istenilen doğru duateyi anda bulabilme refleksini geliştirmek gerekmektedir. Bu çalışmada yanlış duate sonucu oluşan entonasyon bozukluğuna sebep olan hataların çeşitleri ve bu sorunu gidermek için uygulanabilecek yöntemler incelenmektedir.

**Anahtar Kelimeler:** Viyolonsel, Duate, Sol el tekniği

## THE IMPORTANCE AND EFFECTS OF THE CORRECT FINGERING TECHNIQUE for CELLO PERFORMANCE

One of the cornerstones of cello education is the instructor's ability to accurately convey the playing method to the student. The student must integrate right and left hand coordination into his/her own working system based on this information. Otherwise, the desired performance cannot be achieved and the musical flow will be disrupted as a result of technical deficiencies experienced during performance. One of the major factors that disrupt the musical flow is the wrong fingering selection. Failure to choose the correct fingering is the main cause of intonation problems. This situation disrupts the integrity of solo and ensemble performance, which consists of more than one person, hinders the flow of music and undermines the quality of music. In order not to cause such mistakes, it is necessary to master the proper fingering used in left hand position transitions, and to develop the reflex of instantly finding the desired correct finger positions during the performance by applying exercises for this in the work done on a daily basis. In this study, the types of errors that cause intonation issues as a result of incorrect fingering technique and the methods that can be applied to solve this problem are examined.

**Keywords:** Violoncello, Duate, Left hand technique

## OBUA EĞİTİMİNDE NEFES DÖNDÜRME TEKNİĞİ VE ÇALIŞMA ÖNERİLERİ CIRCULAR BREATHING TECHNIQUE AND WORKOUT SUGGESTIONS IN OBOE TRAINING

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### ÖZET

Nefesli bir çalgı olan obua, yapısı gereği her zaman basınçlı ve güçlü bir hava akışına gereksinim duymaktadır. Yaklaşık on yıllık bir sürede tamamlanan obua eğitiminin temeli nefes teknikleri ve diyafram kullanımına dayanmaktadır. Bu on yıllık eğitim sürecinin doğal gelişimi olarak teknik ve müzikal zorluğun kademeli olarak arttığı eserler obua müfredatında yer almaktadır. Müzikal cümlelerin uzaması, nefes almaya uygun noktaların aralarının giderek açılmasıyla nefes ve diyafram kullanım süresi uzamakta ve Nefes Döndürme (Circular Breathing) tekniğine gereksinim duyulmaktadır. Temel anlamda nefes teknikleri ve diyafram basıncı benimsendikten sonra 'İleri Çalım Teknikleri' olarak adlandırabileceğimiz Nefes Döndürme, obua eğitiminin önemli bir bölümü olarak tanımlanmaktadır. Bu çalışmada Nefes Döndürme tekniği, bu tekniği kazanabilmek için gereken çalışma önerileri ve obua repertuarındaki bazı önemli eserlerdeki nefes döndürme tekniğinin kullanılması gereken pasajlar incelenmiştir. Temel olarak Nefes Döndürme tekniği, uzun bir müzikal pasajda, sesin kesilmeden burundan nefes alarak cümlenin tamamlanmasına olanak tanımaktadır. Genellikle Legato (bağlı, kesiksiz) pasajlarda kullanıldığı düşünülse de bazı özel staccato (dilli, kesik kesik) çalınan pasajlarda da kullanılmasının mümkün olduğu görülmektedir. Bu teknik sadece obua çalımında değil, klarinet, saxofon, fagot, trompet, trombon, korno gibi diğer nefesli çalgılarda da kullanılmaktadır. Bu nedenle bu çalışmanın nefesli çalgı öğrencilerine, amatör ve profesyonel nefesli çalgıcularına uygulamalı ve teknik anlamda kaynak olacağı düşünülmektedir.

**Anahtar Kelimeler:** Nefes tekniği, Obua, Nefes döndürme

### ABSTRACT

The oboe, a wind instrument, always requires a pressurized and powerful air flow due to its nature. The oboe training, which is completed in a period of approximately ten years, is based on breathing techniques and the use of the diaphragm. As a natural development of this ten-year training process, works in which technical and musical difficulty gradually increase are included in the oboe curriculum. As musical phrases lengthen and the distance between suitable breathing points gradually increases, the duration of breath and diaphragm use increases and the Circular Breathing technique is required. After adopting breathing techniques and diaphragm pressure in a basic sense, Circular Breathing, which we can call 'Advanced Playing Techniques', is defined as an important part of oboe training. In this study, the Circular Breathing technique, the study suggestions required to acquire this technique and the passages in some important works in the oboe repertoire where the Circular Breathing technique should be used are examined. Basically, the Circular Breathing technique allows the completion of a sentence by breathing through the nose without interrupting the sound in a long musical passage. Although it is generally thought to be used in Legato (connected, untongued) passages,

it is also possible to use it in some special staccato (tongued) passages. This technique is used not only in oboe playing but also in other wind instruments like clarinett, saxophone, basson, trompet, trombone and horn. Therefore, it is thought that this study will be a practical and technical resource for wind instrument students, amateur and professional wind instrument players.

**Keywords:** Breath technique, Oboe, Circular Breathing

## TRANSFORMING HIGHER EDUCATION: INNOVATIVE TEACHING METHODS IN 21<sup>ST</sup> CENTURY CLASSROOMS

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The landscape of higher education is undergoing a significant transformation, particularly in the field of foreign language teaching. As we advance into the 21st century, traditional methods are increasingly being replaced by innovative approaches that leverage modern technologies and pedagogical theories. This abstract explores how these innovative foreign language teaching methods are reshaping language education in contemporary classrooms and highlights the impact of these advancements on student learning and engagement.

One of the most significant innovations in foreign language teaching is the use of digital tools and resources. Modern classrooms increasingly incorporate interactive technologies such as smartboards, language learning apps, and online platforms. These tools facilitate a more dynamic and interactive learning environment, allowing students to engage with the language through multimedia content, real-time feedback, and collaborative activities. The incorporation of digital resources supports a blended learning model, where traditional face-to-face instruction is complemented by online components that provide additional practice and support.

Furthermore, the advent of immersive technologies, such as virtual reality (VR) and augmented reality (AR), offers new possibilities for language education. These technologies create immersive environments where students can practice language skills in simulated real-life situations. For example, VR can transport students to a virtual foreign city where they can interact with native speakers and navigate various cultural contexts. Such experiences enhance language learning by providing authentic practice opportunities and increasing student motivation.

The use of data analytics and artificial intelligence (AI) in language education is another area of innovation. AI-powered tools, such as language learning apps with adaptive algorithms, provide personalized learning experiences by tailoring content and feedback to individual student needs. Data analytics allows educators to track student progress, identify areas for improvement, and adjust instructional strategies accordingly. These technologies contribute to a more customized and effective language learning experience.

Despite the advantages of these innovative methods, challenges remain. Issues such as the digital divide, varying levels of technological proficiency among students, and the need for professional development for educators must be addressed to fully realize the potential of these advancements. Ensuring equitable access to technology and providing adequate training for teachers are crucial for the successful implementation of new teaching methods.

In conclusion, the transformation of foreign language teaching in 21st-century classrooms reflects a broader shift towards innovative educational practices that leverage technology and modern pedagogical approaches. By integrating digital tools, project-based learning, immersive technologies, and data-driven strategies, educators can create more engaging and effective language learning experiences. As higher education continues to evolve, these innovations promise to enhance language proficiency and better prepare students for a globalized world.

**Keywords:** Foreign Language Teaching, Innovative Methods, 21st Century Classrooms, Educational Technologies, Pedagogical Approaches, Student Engagement, Language Learning.

## SÜRDÜRÜLEBİLİRLİK ÇALIŞMALARININ KURUMSAL İTİBAR İLE İLİŞKİSİ: FİNANSAL ARACI KURUMLAR ÖRNEĞİ<sup>1</sup>

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Sürdürülebilirlik, ekolojik sistemler ile denge içinde kalarak, bugünün gereksinimlerinin gelecek nesillerin zararına olmadan karşılanması olarak tanımlanmaktadır (WCED, 1987, s.8). Kurumsal itibar ise, paydaşların bir işletmeye ilişkin algılarını yansıtan benzersiz bir kurumsal imaj türü olup (Brown, Dacin, Pratt ve Whetten, 2006, s. 102), bir şirketin rakiplerine kıyasla paydaşlarına değer sağlama yeteneğini etkileyen geçmiş eylemleri ve sonuçlarına ilişkin genel algı olarak tanımlanmaktadır (Fombrun, 1996, Fombrun ve Rindova, 1996, Fombrun ve Van Riel, 1997, Fombrun vd., 2000).

Kamu/özel sermayeli olması fark etmeksizin, bankaların sürdürülebilirliği önemli bir kurumsal itibar kazanım aracı olarak gördükleri alanyazından anlaşılmaktadır (İşbilen Duru ve Erkasap, 2023). Ancak finansal aracı kurumlar için sürdürülebilirlik-kurumsal itibar bağlamındaki çalışmalara literatür taranmasında rastlanmamıştır. Bu çalışmada, 2024 verilerine göre Türkiye’de 67 işletme ile faaliyet gösteren bir finansal alanı kapsayan, aracı kurumların, sürdürülebilirlik yolculuğunun peşine düşülmüştür.

Çalışmanın amacı; aracı kurumların hangilerinin KAP üzerinden sürdürülebilirlik raporlarını açıkladıkları; KAP dışında başka bir alanda sürdürülebilirlik vurgusunu taşıyan açıklama/faaliyetlere yer verip vermedikleri; sürdürülebilirlik çalışmaların alt alanları olan ekonomik, sosyal ve çevresel sürdürülebilirliğin hangisi/hangilerinin önemseyerek raporlarında ve faaliyetlerinde yer verdikleri ve bu çalışmaların İtibar Ölçeği’nde hangi maddeler ile eşleştiği sorularına yanıt bulunmasıdır.

Çalışma bir nitel araştırma olarak tasarlanmış olup, veri kaynağını Türkiye’deki finansal aracı kurumlara ait güncel (2022 ve 2023) sürdürülebilirlik raporları oluşturmaktadır. Aracı kurumlara ait sürdürülebilirlik raporlarına Kamuyu Aydınlatma Platformu (KAP)’nun web sitesi olan <https://www.kap.org.tr> üzerinden ulaşılabilmektedir. Araştırmada aracı kurumların üç temel sürdürülebilirlik teması olan ekonomik, çevre ve sosyal sürdürülebilirliğe ilişkin yaklaşımları ve kurumsal itibar boyutları karşılaştırmalı olarak incelenmiştir.

**Anahtar kelimeler:** yönetim ve organizasyon, bankacılık, stratejik yönetim, sürdürülebilirlik

<sup>1</sup> Bu çalışma TUBİTAK tarafından desteklenen 2665 numaralı “Sürdürülebilirlik Çalışmalarının Kurumsal İtibar İle İlişkisi: Finansal Aracı Kurumlar Örneği” isimli TUBİTAK 2209-A projesinden üretilmiştir.



## RELATIONSHIP BETWEEN SUSTAINABILITY ACTIVITIES AND CORPORATE REPUTATION: THE EXAMPLE OF FINANCIAL INTERMEDIARY INSTITUTIONS<sup>2</sup>

Sustainability is defined as meeting today's needs without harming future generations, while remaining in balance with ecological systems (WCED, 1987, p.8). Corporate reputation is a unique type of corporate image that reflects stakeholders' perceptions of a business (Brown, Dacin, Pratt, & Whetten, 2006, p. 102), and is defined as the general perception of a company's past actions and results that affect its ability to provide value to its stakeholders compared to its competitors (Fombrun, 1996, Fombrun & Rindova, 1996, Fombrun & Van Riel, 1997, Fombrun et al., 2000). It is understood from the literature that banks, regardless of whether they are public or private, see sustainability as an important tool for gaining corporate reputation (İşbilen Duru & Erkasap, 2023). However, no studies on sustainability-corporate reputation for financial intermediary institutions were found in the literature review. This study has pursued the sustainability journey of intermediary institutions covering a financial sector operating with 67 companies in Turkey according to 2024 data.

The aim of the study is to find answers to the questions of which intermediary institutions disclose their sustainability reports through KAP; whether they include statements/activities emphasizing sustainability in another area other than KAP; which sub-areas of sustainability studies, economic, social and environmental sustainability, are/are important and included in their reports and activities, and which items these studies match on the Reputation Scale.

The study was designed as a qualitative research and the data source consists of current (2022 and 2023) sustainability reports of financial intermediary institutions in Turkey. Sustainability reports of intermediary institutions can be accessed via the website of the Public Disclosure Platform (KAP) <https://www.kap.org.tr>. In the study, the approaches of intermediary institutions regarding the three basic sustainability themes of economic, environmental and social sustainability and corporate reputation dimensions were comparatively examined.

Keywords: management and organization, banking, strategic management, sustainability

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<sup>2</sup> This study is based on the TUBITAK 2209-A project titled "Relationship Between Sustainability Activities and Corporate Reputation: The Example of Financial Intermediary Institutions", numbered 2665, supported by the TUBITAK

**THE INFLUENCE OF INTERACTIVITY ON THE LONG-TERM RETENTION BENEFITS  
OF LEARNING BIOLOGY CONCEPTS WITH THE PROTÉGÉ EFFECT**

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**Abstract**

The study explained the role of interactivity on the learning benefits of the Protégé Effect and explored how Biology teachers can utilise the Protégé Effect in their classrooms to reduce rote learning and facilitate long-term retention. It leaned on the generative learning theory and adopted a non-equivalent quasi experimental research design involving 60 students. Research instruments used for the study include a stimulus instrument named Teachers' Instructional Guide on Ecology of Population (**TIGEP**) and three (3) response instruments namely Population Ecology Requirement Test (**PERT**), Population Ecology Achievement Tests (**PEATs; version 1 and 2**). Results substantiated that the Protégé Effect significantly influenced the performance of students on immediate tests ( $F_{cal} = F_{(3,55)} = 24.47 > F_{tab} = 8.57, p < 0.001$ ) and on the long-term retention of Biology concepts ( $F_{cal} = F_{(3,55)} = 16.25 > F_{tab} = 8.57, p < 0.001$ ). It further suggested how interactive teacher-role students learn via cognitive priming for explanation, consolidation and integration, thus explaining why interactivity is indeed a crucial factor in this context.

**EXAMINATION OF PRIMARY SCHOOL CLASSROOM TEACHERS' OPINIONS  
AND ATTITUDES TOWARDS THE USE OF COMPUTER AIDED TEACHING  
METHODS**

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**Abstract**

This research aims to reveal the opinions and attitudes of primary school classroom teachers regarding how "Computer Aided Teaching Methods" reflect the duration of the lesson, its effectiveness, and the learning of the students. In the research, an enriched design from mixed approach research was used, in which quantitative and qualitative data collection tools were used together. For the quantitative data to be collected in the research, the attitude scale consisting of a total of 28 items, in the article titled "*Teachers' Attitudes Towards the Use of Computers in Education*", was used. The attitude scale was applied to 68 classroom teachers. For the qualitative data collection phase of the research, semi-structured interview technique was used. The semi-structured interviews were written by the researchers based on the information obtained by scanning the literature and the data collection tools used in the research on the subject. Semi-structured questions were finalized by taking expert opinion and then applied with the interweavers. With this method, 6 randomly chosen teachers who had primary school classroom teaching experience participated for the semi-structured interviews. The data obtained from the semi-structured interviews were analysed by the researchers using the content analysis method. In the light of the findings obtained from the research, it was stated that classroom teachers used computer-assisted teaching methods in line with their opportunities and abilities, who were willing to use these methods, argued that these methods had positive aspects towards their use of computer-assisted teaching methods. It can be said that they thought that computer-assisted teaching methods saved time during the courses, if they were fully prepared in the use of computer-assisted teaching methods. These methods also increased students' interest and attention to the course. On the other hand, classroom teachers argued that computer-assisted teaching methods had various negative aspects, but it can be said that they had more positive aspects. The findings of the research were discussed and interpreted in line with the relevant literature. Finally, the results of the research were summarized, and suggestions were given to experts and researchers.

**Keywords:** Education, Teaching, Computer, Computer Aided Instruction, Constructivist Education

**ALTERNATİF TEKSTİL YÜZEYİNDEN GİYSİ TASARIMI:  
SÜRDÜRÜLEBİLİR N-YAĞMURLUK**

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**ÖZET**

Tekstil sektöründe kullanılan temel yüzeyler dokuma ve örme yüzeylerdir. Bu yüzeyler kullanılacağı kategorilere göre değişiklik göstermektedir. Dokuma kumaşlar genellikle formal kıyafetlerin (ceket, pantolon, palto, gömlek vb.) üretiminde kullanılırken, örme kumaşlar daha çok informal kıyafetlerin (t-shirt, sweatshirt, eşofman vb.) üretiminde kullanılmaktadır. Kıyafetlerin farklı amaçlar ve hedefler açısından kullanımı bir gerekliliktir. Yağmurluklar genellikle örme ya da dokuma kumaş üzerine laminasyon tekniği ile üretilmektedir. Uzun süreli kullanımda bu tip kumaşlardan üretilmiş yağmurlukların nefes alabilirlik ve buhar transferi problemleri nedeniyle, giyim konforlarının bozulduğu bilinmektedir. Bir giysi tasarımındaki en önemli faktör, giyim konforu ve termal konfordur. Termal konforun en önemli etkisi vücut ısısının kişiyi rahatsız etmesini önlemektir. Yağmurluklar ise dış giysi kapsamında olduklarından termal konfordan ziyade nefes alabilirlik önemli bir kriter olarak karşımıza çıkmaktadır. Dokunmamış tekstil yüzeyleri (nonwoven) ise hava geçirgenliği yüksek yapılardır. Bu sebeple nefes alabilirlik konusunda büyük avantaj sağlamaktadır. Bu çalışma kapsamında, karbon ve su ayak izi düşük olan nonwoven üretim teknikleriyle üretilmiş, hafif gramajlı dokusuz yüzeylerin kullanımı planlanmaktadır. Farklı üretim teknikleriyle üretilen bu kumaşlar, günümüzde giyimlik alanın dışında pek çok endüstriyel alanda kullanılmaktadır. Çalışma kapsamında, düşük gramajlı ve nefes alabilen dokunmamış yüzeyler tasarlanarak çeşitli iş birlikleriyle kumaş numuneleri üretilmektedir. Kumaşların su iticilik ve nefes alabilirlik özellikleri sağlanarak, yağmurluk tasarımlarının yapılması ve literatüre sunulması hedeflenmektedir. Bu çalışma neticesinde, farklı alanlarda yaygın kullanımı olan bir tekstil yüzeyinin giyimlik alanda kullanılabilirliği gösterilmiş olacaktır.

**Anahtar Kelimeler:** Tekstil, Nonwoven Kumaş, Yağmurluk, Giyim Konforu

**CLOTHING DESIGN FROM ALTERNATIVE TEXTILE SURFACE: SUSTAINABLE  
N-RAINCOAT**

**ABSTRACT**

The basic surfaces used in the textile industry are woven and knitted surfaces. These surfaces vary depending on the categories in which they will be used. While woven fabrics are generally used in the production of formal clothes (jackets, pant, coats, shirts, etc.), knitted fabrics are mostly used in the production of informal clothes (t-shirts, sweatshirts, tracksuits, etc.). The use of clothes for different purposes and targets is a necessity. Raincoats are generally produced using the lamination technique on knitted or woven fabric. It is known that the wearing comfort

of raincoats made of this type of fabric deteriorates during long-term use due to breathability and vapor transfer problems. The most important factor in a garment design is wear comfort and thermal comfort. The most important effect of thermal comfort is to prevent body temperature from disturbing the person. Since raincoats are included in outer clothing, breathability rather than thermal comfort is an important criterion. Non-woven textile surfaces are structures with high air permeability. For this reason, it has a great advantage in terms of breathability. Within the scope of this study, it is planned to use light weight non-woven surfaces produced with nonwoven production techniques with low carbon and water footprint. These fabrics, which are produced with different production techniques, are used in many industrial areas outside the clothing field today. Within the scope of the study, fabric samples will be produced with various collaborations by designing low-grammage and breathable non-woven surfaces. The aim is to design and produce raincoats by ensuring the water repellency and breathability properties of the fabrics. As a result of this study, the usability of a textile surface that has widespread use in different areas will be shown in the apparel field.

**Keywords: Textile, Nonwoven Fabric, Raincoat, Wearing Comfort**

## PERSONALIZED MEDICINE: TAILORING TREATMENTS TO INDIVIDUALS

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### **ABSTRACT:**

Personalised medicine is a significant change in healthcare that focusses on tailoring medical treatments to individual patients by considering their genetic, environmental, and lifestyle characteristics. This strategy utilises progress in genetics, bioinformatics, and biotechnology to create customised therapy strategies that improve effectiveness and reduce negative side effects. Personalised medicine seeks to revolutionise the conventional approach to treatment by combining data from several sources to anticipate disease vulnerability, enhance drug choice, and establish suitable dosage levels. This approach intends to replace the outdated "one-size-fits-all" model of treatment. Personalised medicine is achieved by the thorough analysis of an individual's genetic makeup and the utilisation of biomarkers to pinpoint distinct disease mechanisms that are distinctive to that particular patient. By utilising this technology, medical professionals are able to create accurate and specific treatment strategies, enhance patient results, and decrease healthcare expenses by implementing focused interventions. Furthermore, by identifying high-risk individuals and putting early interventions in place, personalised medicine has the potential to completely transform preventative care. Personalised medicine exhibits encouraging potential but encounters obstacles such as ethical dilemmas, concerns around data privacy, and the necessity for thorough clinical validation. Furthermore, the incorporation of personalised medicine into regular clinical practice necessitates significant investment in infrastructure and training for healthcare workers. Personalised medicine has the potential to greatly improve the accuracy and efficiency of healthcare by providing a more tailored approach to managing and treating diseases. Ongoing study and collaboration across several fields are necessary to fully exploit the potential of this groundbreaking method and to tackle the difficulties related to its implementation.

**KEYWORD:** Personalised Medicine; Individual Treatments; Revolutionising strategy.

**TÜRKİYE’DE AHLAKİ BİR PERSPEKTİF OLARAK YENİ MANEVİYAT  
BİÇİMLERİ: YOGA EĞİTMENLERİ ÖRNEĞİ  
NEW FORMS OF SPIRITUALITY AS A MORAL PERSPECTIVE IN TURKEY:  
THE EXAMPLE OF YOGA INSTRUCTORS**

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**ÖZET**

Yeni dinselilikler ve maneviyat arayışları konusuna ilgi seksenlerden itibaren dünyada özellikle sekülerleşme/postsekülerleşme tartışmaları bağlamında artmaya başlanmış, Türkiye’de de son dönemde yapılan birkaç kapsamlı çalışmayla din sosyolojisi alanında kendine yer bulmuştur. Türkiye’de yoga eğitmenlerinin seküler kimlikleri, maneviyat pratikleri ve yogayı nasıl ilişkilendirdiklerini araştıran çalışmamız da 2017 yılında bu çerçevede gerçekleştirilmiştir. Sahanın bulguları Türkiye’nin sosyopolitik bağlamı içerisinde yorumlanarak “Rendezvous of Turkish Secularists with Yoga: Self-Inquiry Attempts in the Midst of Spirituality, Religion and Politics” (Koyuncu, 2018) adlı makalede yayınlanmıştır. Bu çalışma ise bahsedilen sahanın devamı niteliğindedir. Yoga eğitmenlerinden oluşan on iki kişilik mülakat grubuyla yedi yıl sonra gerçekleştirilecek takip çalışmasında odağın katılımcıların ahlaki perspektiflerine kaydırılması ve yeni maneviyat arayışlarının ahlak sosyolojisi bağlamında anlamlandırılmaya çalışılması amaçlanmaktadır. 2017 tarihinde yapılan mülakatlar yoganın görüşmecilerin dünyayı anlamlandırma hallerini ve etik tercihlerini nasıl şekillendirdiği üzerine ipuçları sunmuştur. Dolayısıyla aynı görüşmecilerle yapılan derinlemesine mülakatlar fonda Türkiye’de son yedi senede yaşanan sosyopolitik gelişmeleri tutarken, yogayı hayatı anlamlandırma ve etik arayışlarının merkezine koyan katılımcılar için bu ilişkilimenin değişip değişmediğini ve bu ilişkilimenin içerisinde yaşadıkları toplumda hâkim başka ahlaki referans setleri ile nasıl etkileşime girdiklerini görmeye yardımcı olacaktır. Son on beş yıldır sekülerleşme/postsekülerleşme tartışmaları ve yeni dinsel arayışlar kadar, ekolojik kriz ve insansonrası tartışmalar, sinirbilim ve yapay zekaya ilişkin gelişmeler de ahlak konusunun yeniden sosyolojik ilginin menziline girmesine neden olmuşlardır. Türkiye farklı ahlaki referans çerçevelerinin özellikle politik konumlanma ve iktidar ilişkileri ile bağlantılı etkileşimini izlemek açısından verimli bir saha sunmaktadır. Böyle bir çalışmanın bu verimli sahaya bir giriş imkânı sağlayarak hem toplumun etik tutumunu anlamaya yönelik daha kapsamlı çalışmaların önünü açması hem de ahlak sosyolojisi alanında yapılan çalışmalara katkı sunması amaçlanmaktadır.

**Anahtar Kelimeler:** yeni maneviyat arayışları, yeni dinselilikler, yoga, ahlak sosyolojisi

**ABSTRACT**

Interest in the subject of new religiosities and spirituality has begun to increase in the world since the eighties, especially in the context of secularization/post-secularization debates, and it has found a place in the field of sociology of religion in Turkey with a few comprehensive studies recently conducted. Our study that investigated how yoga instructors related their secular identities, spirituality practices and yoga, was also realized within this framework in

2017. The findings of the field were interpreted within the sociopolitical context of Turkey and were published in the article titled "Rendezvous of Turkish Secularists with Yoga: Self-Inquiry Attempts in the Midst of Spirituality, Religion and Politics" (Koyuncu, 2018). This study is planned to be a follow-up study where the same twelve yoga instructors will be interviewed after seven years, this time keeping the focus on their moral perspectives. Interviews conducted in 2017 provided clues about how yoga shaped the interviewees' ways of making sense of the world and ethical choices. The in-depth interviews with the same interviewees will help to see, keeping the sociopolitical developments in Turkey in the last seven years in the background, whether this association has changed throughout the years and how this association interacts with other moral reference sets dominant in the society they live in. In the last fifteen years, besides the secularization/postsecularization debates and studies on new religiosities, ecological crisis and posthuman debates, and developments in neuroscience and artificial intelligence have caused the issue of morality to come into the range of sociological interest again. Turkey offers a fruitful field for monitoring the interaction of different reference frames of morality, especially in relation to political positioning and power relations. It is hoped that this study will be a first step into this productive field, paving the way for more comprehensive studies to understand the ethical attitudes of the society, and it will contribute to the field of sociology of morality.

**Key Words:** spirituality, new religiosities, yoga, sociology of morality



**KORUNMAYA İHTİYACI OLAN 13-17 YAŞ GRUBU ÇOCUKLARININ  
RESİMLERİNİN ANALİZ EDİLEREK YORUMLANMASINA YÖNELİK ÇORUM  
ÖRNEĞİ**

**Büşra SÖNGÜT<sup>1</sup>**  
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**ÖZET**

Günümüzde çocukların fiziksel, zihinsel, ahlaki, psikolojik, sosyal ve kişilik gelişiminde aile önemli rol oynamaktadır. Aile ilişkilerinden yoksun olarak büyüyen çocuklarda kişisel gelişimleri açısından bu durum sekteye uğrayabilmektedir. Anne ya da babadan herhangi birinin ya da her ikisinin birden çocuğa bakım verememesi, çocuğun ihtiyaçlarını karşılayamaması ya da yeterliliklerini kaybetmesi durumunda bu çocukların korunmaya ihtiyacı olan çocuklar haline gelmesine neden olmaktadır. Korunmaya ihtiyacı olan bu çocukların hayat deneyimlerinin zorluğu, yaşadıkları travmatik deneyimler ve sözcük dağarcıklarının sınırlı olması nedeniyle de kendilerini ifade etmekte oldukça güçlük çekmektedirler. Korunmaya ihtiyacı olan bu çocuklar, çizdikleri resimler ile kendini ifade ederken bu sayede o çocukları tanımamıza da imkân vermektedir. Bu bağlamda yapılan araştırma, korunmaya ihtiyacı olan çeşitli ihmal ve mağduriyetler yanında yaşadıkları travmaları sözel olarak ifade etmekte güçlük çeken Çorum ilindeki “Çocuk Evleri” bünyesinde yer alan 13-17 yaş grubundaki bulunan 15 çocuğun resimlerinden oluşmaktadır. Bu çocukların resimlerinin görsel sanat uzmanları tarafından sanatsal açıdan değerlendirilmeleri yapılarak çalışmaya katılan çocukların duygu ve düşüncelerinin resimlere yansımalarının nasıl olacağı anlaşılmaya çalışılmıştır. Ayrıca bu çalışmayla korunma ihtiyacı olan çocuklar için kendilerini ifade etmeleri adına özgür alan oluşturulması planlanarak çocuklara yeni ifade alanlarının açılması da amaçlanmıştır. Araştırma Nitel araştırma yöntemlerinden durum çalışması ile yarı yapılandırılmış demografik bilgi formları, görüşme anket ve içerik analizleriyle araştırma gerçekleştirilmiştir. Görüşmeler her çocukla bireysel olarak tek tek yapılmıştır. Çocukların çizimleri esnasında araştırmacı, psikolog ve çocuk gelişimciler tarafından gözlemlenen hususlar ise Uzman Gözlem Formuna işlenmiştir. Bu çalışmada birden fazla boyutun derinlemesine araştırılmasına imkân sağlayan bu olgularla çocukların resimlerinden elde edilen bilgiler analiz edilerek yorumlanmış ve çeşitli bulgulara da ulaşılmıştır.

Sonuç olarak görsel sanatlar eğitimiyle, birebir yapılan bu çalışmaların korunmaya ihtiyacı olan çocuklara faydalı olabilmesi açısından oldukça önemli olabileceği gözlemlenmiştir. Bu anlamda alanındaki uzmanların, özel çocuklarla ilgilenmelerindeki etkili iletişim ve iş birliği çerçevesindeki teşvikleri de onların kişisel gelişimlerine olumlu katkılar sağlamıştır.

**Anahtar Kelimeler:** sanat, eğitim, korunmaya ihtiyacı olan çocuk, resim analizi

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## SUMMARY

Today, family plays an important role in the physical, mental, moral, psychological, social and personality development of children. In children who grow up without family relationships, this situation may interrupt their personal development. If one or both of the mother or father cannot care for the child, cannot meet the needs of the child or lose their competences, these children become children in need of protection. These children in need of protection have great difficulty in expressing themselves due to their difficult life experiences, traumatic experiences and limited vocabulary. While these children in need of protection express themselves through the pictures they draw, they also allow us to recognise these children. The research conducted in this context consists of the drawings of 15 children in the age group of 13-17 in the "Children's Homes" in Çorum province who have difficulty in verbally expressing the traumas they have experienced in addition to various neglect and victimisation in need of protection. The paintings of these children were evaluated artistically by visual art experts and it was tried to understand how the feelings and thoughts of the children participating in the study would be reflected in the paintings. In addition, with this study, it was also aimed to create a free space for children in need of protection to express themselves and to open new areas of expression for children. Research The research will be carried out with semi-structured demographic information forms, interview questionnaires and content analyses with case study, one of the qualitative research methods. Interviews were conducted individually with each child one by one. The issues observed by the researcher, psychologist and child development specialists during the children's drawings were recorded in the Expert Observation Form. In this study, the information obtained from the children's drawings was analysed and interpreted with these facts, which enabled in-depth investigation of more than one dimension, and various findings were reached.

As a result, it was observed that these one-to-one studies with visual arts education can be very important in terms of being beneficial for children in need of protection. In this sense, the incentives of the experts in the field within the framework of effective communication and cooperation in dealing with special children also made positive contributions to their personal development.

**Keywords:** art, education, child in need of protection, picture analysis

## NİSA SURESİ BAĞLAMINDA KADIN VE SOSYAL HAYATTAKİ KONUMU\*

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### ÖZET

İnsanoğlu ilk yaratılıp dünyada varlığını sürdürdüğü günden beri hem birbirini tamlayan, hem de tamlanan anlamında taraflardan biri kadın diğeri erkek olarak vücut bulmuştur. Antik çağlardan, tüm dönemlere kadın tarihin ve toplumun içindeki varoluşu ile ilgili olarak zaman zaman bereketin sembolü bir tanrıça olarak özne durumunda, bazen de ailedeki konumuna göre diğeri aile fertlerinin ve erkeğin tamamlayıcısı bir yüklem durumunda olmuştur. Kadim dinler içinde de varlığı önemini koruyarak kutsal metinlerin doğrudan ve dolaylı olarak bahis konusudur. Gerek Yahudilik ve Hristiyanlık gerekse İslam dini açısından değeri ve yeri toplum içinde kadınla ilgili davranışları şekillendirmiştir. Eski Ahitte günahın baş sorumlusu, Yeni Ahitte ruhunun varlığı dahi tartışılan kadın konusu İslam öncesi putperest Arap toplumunda da ötelenmiş bir konumda iken Kur'an da ilahi bir sözleşme ile birçok yerde hak ettiği değer hatırlatılmış, adalet ve şefkat açısından İnanırlarına uyarılarda bulunulmuştur. Biz bu çalışmamızda Nisa suresi ölçeğinde kadın ve sosyal hayattaki varlık ve statüsü ile ilgili birkaç örneğe yer vermeyi amaçlıyoruz.

**Anahtar Kelimeler:** Nisa Suresi , Kadın,Aile ,Hukuk

### ABSTRACT

Ever since the first human being was created and has existed in the world, one of the parties has been embodied as a woman and the other as a man, in the sense of both complementing and completing each other. From ancient times to all periods, women have been sometimes subjected as a goddess, a symbol of fertility, regarding their existence in history and society. They have become a complementary predicate to other family members and men, depending on their position in the family. They are the subject of direct and indirect mention in sacred texts, maintaining their importance in ancient religions. Both Judaism, Christianity and Islam have shaped the value and place of women in society. In the Old Testament, the woman was the main culprit of sin, and in the New Testament, even the existence of her soul was debated. In the pre-Islamic pagan Arab society, the woman was in a marginalized position, but in the Qur'an she was reminded of the value she deserved in many places by a divine contract, and warnings were given to the believers in terms of justice and compassion. In this study, we aim to give a few examples of women and their status in social life in the context of Surah Nisa

**Keywords :** Surah of an-Nisa(The Women),Woman,Home,Law

\*Bu çalışma Nisa Suresi bağlamında Sempozyum bildirisi amaçlı hazırlanmıştır.

## PERCEIVED BEHAVIORAL CONTROL AND BELIEFS ABOUT ORGAN DONATION AND TRANSPLANTATION

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### INTRODUCTION

Organ donation and transplantation are critical components of modern healthcare, offering lifesaving solutions for patients with organ failure. Understanding the factors that influence individuals' willingness to donate organs is vital for developing effective strategies to increase donor rates. Among these factors, perceived behavioral control and individual beliefs play crucial roles. Nursing students, as future healthcare professionals, are in a unique position to influence public attitudes and behaviors regarding organ donation.

### AIM

This study aims to explore the perceived behavioral control and beliefs about organ donation and transplantation among nursing students.

### METHODS

This descriptive cross-sectional study was carried out at the Higher Institute of Nursing Sciences in Sfax, Tunisia, involving a representative sample of 230 nursing students. Perceived behavioral control and beliefs were assessed using an 8-item questionnaire.

### RESULTS

The study population had an average age of  $20.42 \pm 1.24$  years. The gender distribution was 53% females (N=122) and 47% males (N=108), resulting in a male-to-female ratio of 0.88.

Seventy-four students (32.2%) noted that hospitals must refer brain dead patients to organ donation agencies, and 73.5% feel insufficiently informed to identify potential organ donors (n=169). Conversely, 42.2% view organ transplantation as more harmful than helpful (n=97). However, 94.4% believe transplant candidates deserve a second chance at life (n=217), and 96% consider transplantation a life-saving technique (n=220). Additionally, 56% see identifying donors as a professional responsibility (n=128). These insights reveal diverse perceptions among students regarding organ donation and transplantation.

The primary sources of information about organ donation and transplantation cited by students were the internet and media (n=153; 66.5%), followed by academic studies (n=95; 41.3%), conferences and scientific articles (n=59; 26%), and personal circles (n=51; 22.2%). Concerns about organ trafficking were cited by 65.5% of participants as a major factor (n=150). Additionally, religious beliefs against body manipulation (n=142; 61.75%) and concerns about legal frameworks (n=138; 60%) were significant concerns. Lack of accessible information affected 36% of students (n=83), while 36.5% cited family misunderstanding as a barrier (n=84). Finally, 24.3% noted unfamiliarity with legal frameworks influencing their donation attitudes (n=56).

### CONCLUSION

Enhancing education and awareness programs targeted at nursing students could strengthen their perceived control and positively influence their advocacy for organ donation in their future careers. By addressing these factors, we can foster a more supportive environment for organ donation, ultimately contributing to higher donation rates and improved patient outcomes.

**Keywords:** Beliefs - Nursing Students – Organ Donation

**A STUDY ON THE EFFECTIVENESS OF NANOSTRUCTURED COMPOSITES IN ENHANCING PAINT CORROSION RESISTANCE PROPERTIES**

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**Abstract**

Corrosion is a significant challenge affecting various industries, leading to substantial economic losses and environmental impacts. Nanostructured composites have emerged as promising additives in paint formulations, offering enhanced corrosion resistance due to their unique properties such as high surface area, barrier effect, and chemical stability. This paper reviews recent developments in using nanostructured composites to improve paint corrosion resistance, discusses synthesis methods, performance mechanisms, and explores their potential applications across different sectors. The study emphasizes the role of nanotechnology in advancing corrosion protection strategies and identifies future research directions for optimizing nanostructured composite paints.

**EXPANSION OF MICRO, SMALL AND MEDIUM ENTERPRISES IN  
UTTARAKHAND**

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**Abstract**

The MSME sector act as a catalyst for the economic growth of the country. It involves large employment with lower capital cost and also helps in the industrialisation of rural and backward areas. The main aim of the paper is to examine the performance of the MSME sector in Uttarakhand in December 2023. Data was collected by using secondary sources from Industries department and other official websites, journals, etc. The study concluded that Uttarakhand has maximum number of micro enterprises followed by the small and medium enterprises. Dehradun and Haridwar districts recorded the highest number of UDYAM units as compared to other districts of Uttarakhand.

Keywords – MSME, UDYAM, Employment, Economic growth, Capital cost

## ROLE OF DIGITAL PLATFORMS IN FARMER EDUCATION AND EXTENSION SERVICES

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### **Abstract**

The advent of digital platforms has revolutionized farmer education and extension services, offering unprecedented opportunities for knowledge dissemination, real-time support, and community building. This paper explores the transformative impact of digital platforms in enhancing agricultural productivity and sustainability through improved access to information and resources. By leveraging mobile applications, online courses, and social media networks, farmers can now obtain up-to-date agronomic advice, market information, and weather forecasts. The integration of artificial intelligence and machine learning in these platforms further personalizes learning experiences, providing tailored recommendations based on individual farm conditions and practices. Moreover, digital platforms enable efficient communication between farmers, researchers, and extension agents, fostering collaboration and knowledge sharing. The integration of digital tools also supports data-driven decision-making and resource optimization, contributing to increased agricultural productivity and resilience. Despite these advancements, challenges such as digital literacy, internet connectivity, and the digital divide remain significant barriers. digital platforms play a pivotal role in modernizing farmer education and extension services, offering innovative solutions to long-standing challenges in the agricultural sector. By enhancing access to information, fostering collaboration, and providing personalized support, these platforms contribute to more resilient and sustainable farming systems. The findings underscore the pivotal role of digital platforms in modernizing agricultural extension services, ultimately contributing to food security and rural development.

**Keywords:** Digital Platforms, Farmers Education and Extension Services

## TÜRK HALK MÜZİĞİ BAĞLAMINDA DEĞERLER EĞİTİMİ İLE İLGİLİ YAPILAN LİSANSÜSTÜ ÇALIŞMALARIN İNCELENMESİ

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### ÖZET

Kültürel aktarımın en önemli parçalarından biri olan Türk halk müziğinin geçmişle bugün arasındaki önemli köprülerden biri olduğu söylenebilir. Değerlerin toplumların önemli yapı taşları olduğu düşünüldüğünde müziğin ve türkülerin etkisi oldukça fazladır. Bu yüzden değerlerin ve kültürel mirasın aktarımında türkülerin ve Türk halk müziğinin etkisi yadsınmaz. Bu araştırmada Türkiye’de Türk halk müziği bağlamında yapılan değerler eğitimi ile ilgili lisansüstü çalışmaların yıl, üniversite, enstitü, anabilim dalı, tez türü, konusu gibi özellikleri açısından incelenerek betimlenmesi amaçlanmıştır.

Konuyla ilgili veriler internet üzerinden Yüksek Öğretim Kurulu Başkanlığı Ulusal Tez Merkezi veri tabanı arşivinden elde edilmiştir. Tez merkezi Yöktez ana sayfasında tarama terimi olarak “Türk halk müziği” yazıldığında listelenen toplam sekiz yüz kırk altı tez incelenmiş ve değerler ile ilgili olan on bir tez detaylı olarak analiz edilmiştir. İçerik analizine tabi tutulan veriler belirlenen kriterler doğrultusunda sınıflandırılmış ve spss programı kullanılıp yüzde-frekans cinsinden tablolar halinde sunularak yorumlanmıştır.

Bu çalışma, betimsel nitelikte olup bir durum çalışmasıdır. Konu ile ilgili literatür taraması yapılmış, ilgili kaynaklar incelenmiş ve konu ile ilgili yapılan lisansüstü çalışmalar incelenerek sınıflandırılmıştır. Çalışma kapsamında elde edilen veriler tablolar halinde sunulmuş ve yorumlanmıştır. Bu çalışma sonucunda sekiz yüz kırk altı tezin on bir tanesinin değerler ile ilgili olduğu, konu ile ilgili en çok 2023 yılında çalışma yapıldığı 11 çalışmanın %18’inin doktora çalışması olduğu ve karma desen kullanıldığı, geri kalan %82’sinin yüksek lisans düzeyinde olduğu ve nitel araştırma deseni kullanıldığı sonucuna ulaşılmıştır. Ayrıca yapılan çalışmaların 8’inin müzik, 1 tanesinin sosyal bilgiler, 1 tanesinin ilköğretim din kültürü ahlak bilgisi ana bilim dalı ve 1 tanesinin Türk halk bilimi anabilim dalına ait olduğu görülmektedir. Türkülerin ve değerlerin yeni nesillere kazandırılmasında yapılan çalışmaların artırılması oldukça önemlidir. 846 çalışmanın yalnızca 11 tanesinin değerler ile ilgili olduğu sonucundan hareketle bu alanda daha fazla çalışma yapılması önerilmiştir. Nitel araştırma desenlerinin etkin olarak kullanıldığı çalışmaların yanı sıra deneysel çalışmalara yer vermenin hem türkülerin kalıcılığını arttıracak hem de alan yazına önemli katkı sağlayacağı düşünülmektedir.

**Anahtar Kelimeler:** Müzik eğitimi, Türk halk müziği, değerler eğitimi.



## REVIEW OF GRADUATE STUDIES ON VALUES EDUCATION IN THE CONTEXT OF TURKISH FOLK MUSIC

### ABSTRACT

It can be said that Turkish folk music, one of the most important parts of cultural transmission, is one of the important bridges between the past and the present. When values are considered as important building blocks of societies, the effect of music and folk songs is quite high. Therefore, the effect of folk songs and Turkish folk music in the transmission of values and cultural heritage cannot be denied. This study aims to describe the postgraduate studies on values education conducted in the context of Turkish folk music in Turkey by examining them in terms of characteristics such as year, university, institute, department, thesis type, and subject.

Data on the subject were obtained from the National Thesis Center database archive of the Council of Higher Education Presidency via the internet. A total of eight hundred and forty-six theses listed when "Turkish folk music" was typed as the search term on the thesis center Yöktez homepage were examined and eleven theses related to values were analyzed in detail. The data subjected to content analysis were classified according to the determined criteria and interpreted by presenting them in tables in terms of percentage-frequency using the spss program.

This study is descriptive and a case study. A literature review was conducted on the subject, relevant resources were examined, and postgraduate studies on the subject were examined and classified. The data obtained within the scope of the study were presented in tables and interpreted. As a result of this study, it was concluded that eleven of the eight hundred and forty-six theses were related to values, 18% of the 11 studies on which the most studies were conducted in 2023 were doctoral studies and used a mixed design, and the remaining 82% were at the master's level and used a qualitative research design. In addition, it was seen that 8 of the studies conducted were on music, 1 on social studies, 1 on primary school religious culture and moral knowledge, and 1 on Turkish folklore. It is very important to increase the studies conducted on introducing folk songs and values to new generations. Based on the result that only 11 of the 846 studies were related to values, it was suggested that more studies be conducted in this field. It is thought that including experimental studies in addition to studies in which qualitative research designs are used effectively will both increase the permanence of folk songs and make a significant contribution to the literature.

Keywords: Music education, Turkish folk music, values education.

**HEROISM AS A UNIVERSAL VALUE IN ERNEST HEMMINGWAY'S *THE OLD MAN AND THE SEA*" AND PAULO COELHO'S "*THE ALCHEMIST*"**

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**Abstract**

As globalization brings us all closer together, and our lives are affected almost instantly by things that people say and do on the far side of the world, we also feel the need to live as a global community. And we can do so only if we have global values to bind us together. But recent events have shown that we cannot take our global values for granted since we have to struggle and keep fighting for our survival and dignity. Universal values are values that apply to all types of human beings, regardless of their social, ethnic or cultural origin. A value is considered universal when it goes beyond laws and beliefs; rather, it is considered to have the same meaning for all people and does not vary according to the societies. In literature Heroism has become a major feature in which Individual struggle towards a personal goals is among the main concerns of man's existence

.The aim of the present article is to mention the importance of Heroism in Paulo Coelho's *the Alchemist* and Ernest Hemingway's *the old Man and the Sea* as a universal value that establish the reflection of human lives since the soul of the World is nourished by people's happiness and enthusiasm .

**Key words:** beliefs-dignity- survival- universality- values-

**THE IMPACT OF ENVIRONMENTAL FACTORS ON ACADEMIC PERFORMANCE: A PSYCHOLOGICAL PERSPECTIVE IN JIGAWA STATE**

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This study investigates the influence of environmental factors on academic performance from a psychological perspective in Jigawa State, Nigeria. The research aims to explore how various environmental conditions, such as natural surroundings, indoor air quality, noise levels, and classroom design, impact students' cognitive functions, mental health, and overall academic outcomes.

A mixed-methods approach is employed, combining quantitative surveys and experimental studies with qualitative interviews and observations. Surveys are distributed to students, teachers, and parents across different schools in Jigawa State to gather data on environmental conditions and academic performance. Experimental studies are conducted to test the effects of specific environmental variables, such as natural light and air quality, on cognitive functions and learning outcomes. Additionally, in-depth interviews with educators and psychologists provide insights into the psychological mechanisms linking environmental factors to academic performance. The study aims to identify key environmental determinants that significantly affect students' academic achievements in Jigawa State. Preliminary findings suggest that exposure to natural environments and a green space positively influences cognitive functions and reduces stress levels, thereby enhancing academic performance. Conversely, poor indoor air quality and high noise levels are associated with increased stress and reduced concentration, negatively impacting learning outcomes.

The research offers recommendations for improving educational environments to foster better academic performance, emphasizing the importance of incorporating natural elements, ensuring good air quality, and managing noise levels in schools. The findings have significant policy implications for educational authorities in Jigawa State, highlighting the need to create conducive learning environments that support students' psychological well-being and academic success.

**Key: Environment, Academic Performance, Psychological Perspective**

**MERSİN/YENİŞEHİR İLÇESİ PEYZAJ BİTKİLERİNDE KLOROFİL MİKTARININ TAYİNİ VE KARBONDİOKSİT (CO<sub>2</sub>) EMİSYONUNUN AZALTMASINA ETKİSİ**  
DETERMINATION OF CHLOROPHYLL AMOUNT IN LANDSCAPE PLANTS OF MERSİN\YENİŞEHİR DISTRICT AND ITS EFFECT ON THE REDUCTION OF CARBON DIOXIDE (CO<sub>2</sub>) EMISSIONS

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**ÖZET**

Çağımızın en sık tartışılan iki konusu olan CO<sub>2</sub> emisyonu ve iklim değişikliği konuları pek çok boyutuyla karşımıza çıkmakta ve bilimsel olarak çözüm üretilmesi gereken konuların başında gelmektedir. Daha yaşanabilir, sürdürülebilir çevre ve şehirler oluşturmak için karbondioksit (CO<sub>2</sub>) emisyonunu düşürmek son derece önemlidir. Bu çalışma karbon emisyonunu düşürerek çevre kirliliğini önleme, iklim değişikliğinin hissedilir ölçüde önüne geçme, sürdürülebilir çevre ve şehirler oluşturmak için doğru ağaçlandırılma yapılması konularında Mersin/Yenişehir peyzaj bitkilerinin klorofil miktarlarının etkilerini incelemek amacıyla yapılmıştır.

Çalışmamızda Mersin ilinin Yenişehir ilçesinde peyzaj bitkisi olarak kullanılan 31 farklı Gymnosperm ve Angiosperm bitkisinin 50 farklı yapraktan ve her yaprakta 3 farklı noktadan klorofil ölçümleri gerçekleştirilmiştir. Araştırma kapsamında 9 Gymnosperm türü ve 22 Angiosperm türüne ait, klorofil içeriği, yapraktaki klorofil miktarını dolaylı olarak ölçen, taşınabilir klorofil metre cihazı (Minolta SPAD-502, Osaka, Japan) ile yapılmıştır.

Çalışma sonucunda elde edilen verilere göre 9 Gymnosperm bitki türü arasından, en yüksek klorofil ortalama değerini veren yerli bitkimiz *Pinus pinea* L. (Fıstık çamı), en düşük klorofil ortalama değerini veren *Cupressus sempervirens* L. (Servi) olmuştur. 22 Angiosperm bitki türü arasından, en yüksek klorofil ortalama değerini veren yabancı bitkimiz *Euonymus japonicus* Thunb. (Yeşil Taflan), en düşük klorofil ortalama değerini veren *Jacaranda mimosifolia* D. Don (Jakaranda) ve *Cercis siliquastrum* L. (Erguvan) olmuştur. Çalışmanın en önemli bulgusu, öngörülemeyen bir CO<sub>2</sub> artışının, bitkilerin klorofil miktarlarına bağlı olarak peyzajda kullanılabilecek yerli veya yabancı bitkilerin nasıl etkileyeceğidir. Şehir peyzajlarında kullanılacak ağaçları uygun seçebilmek için önerilen bitkiler arasından uygun seçim yapmak iklim değişikliğinin gözle görülür şekilde önüne geçecektir.

Bu çalışma “Mersin/Yenişehir İlçesi Peyzaj Bitkilerinde Klorofil Miktarının Tayini Ve Karbondioksit (CO<sub>2</sub>) Emisyonunun Azaltmasına Etkisi” başlıklı TBTK-0134-1991 Tübitak ID numaralı 2209-A Tübitak Projesi kapsamında 2023 / 1 döneminde desteklenmiştir. Gerçekleştirilen arazi çalışmaları Tübitak Projesi verilerine dayanmaktadır.

**Anahtar Kelimeler:** CO<sub>2</sub> Emisyonu, Klorofil, Mersin, Yenişehir, Peyzaj

## ABSTRACT

CO<sub>2</sub> emissions and climate change, two of the most debated issues of our time, have many dimensions and are among the issues that need to be resolved scientifically. In order to create more livable and sustainable environments and cities, it is extremely important to reduce carbon dioxide (CO<sub>2</sub>) emissions. This study was conducted to investigate the effects of chlorophyll amounts of landscape plants in Mersin/Yenişehir on preventing environmental pollution by reducing carbon emission, preventing climate change to a noticeable extent, and making the right reforestation to create sustainable environment and cities.

In our study, chlorophyll measurements of 31 different Gymnosperm and Angiosperm plants used as landscape plants in Yenişehir district of Mersin province were carried out on 50 different leaves and 3 different points on each leaf. As part of the study, the chlorophyll content of 9 Gymnosperm and 22 Angiosperm species was measured using a portable chlorophyll meter (Minolta SPAD-502, Osaka, Japan), which indirectly measures the amount of chlorophyll in the leaf.

According to the data obtained as a result of the study, among the 9 gymnosperm plant species, *Pinus pinea* L. (Stone Pine) gave the highest mean chlorophyll value and *Cupressus sempervirens* L. (Cypress) gave the lowest mean chlorophyll value. Among 22 Angiosperm species, *Euonymus japonicus* Thunb. (Green Leafed Taflan) gave the highest mean chlorophyll value, *Jacaranda mimosifolia* D. Don (Jacaranda) and *Cercis siliquastrum* L. (Redbud) the lowest. The most important finding of the study is how an unpredictable CO<sub>2</sub> increase will affect the native or exotic plants that can be used in the landscape, depending on the chlorophyll levels of the plants. Making appropriate choices among the recommended plants when selecting trees for urban landscapes will visibly prevent climate change.

This study was supported within the framework of project TBTK-0134-1991 Tübitak ID 2209-A Tübitak entitled "Determination of Chlorophyll Amount in Landscape Plants of Mersin/Yenişehir District and its Effect on the Reduction of Carbon Dioxide (CO<sub>2</sub>) Emission" in the period 2023/1. The field studies conducted are based on the data of Tübitak project.

**Keywords:** CO<sub>2</sub> emission, chlorophyll, Mersin, Yenişehir, landscape

**ASSESSMENT OF ROLE OF PHYSICAL ACTIVITY IN OBESITY RISK DETERMINANTS, PREVENTION AND MANAGEMENT AMONG UNDERGRADUATE STUDENTS IN A TERTIARY INSTITUTE IN NIGERIA**

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**ABSTRACT**

The aim of this study was assessment of role of physical activity in obesity risk determinants, prevention and management among undergraduate students in a tertiary institute in Nigeria. Methodologically, this study was conducted at Edo State University Uzairue to investigate strategies for risk determinants, preventing and managing obesity among undergraduate students in a tertiary institute in Nigeria. Descriptive research design and simple random sampling technique were used and a sample size of two hundred and seven (207) respondents were recruited. Data was collected using a structured questionnaire and analyzed using descriptive and inferential statistics, with  $p < 0.05$ .

The results were that a significant portion 74(42.5%) classified as having low physical activity, 57(32.8%) having a sedentary lifestyle, 16(9.2%). A significant majority 71(40.8%) strongly agrees that alcohol consumption and smoking impacts on overweight. A significant portion 62(35.6%) agrees that diabetes is a health risk associated with obesity. A significant majority 70(40.2%) agrees that arthritis is a health risk associated with obesity. A significant majority 80(45.9%) strongly agrees that improving physical activity can reduce the risk of obesity. There was statistically significant association on the belief that increased physical activity among undergraduate students will lead to a significant reduction in obesity rates and contribute to its prevention. In conclusion, the study identified a high prevalence of obesity among surveyed students, emphasizing the need for targeted interventions.

**Keywords:** United Nations Sustainable Development Goal number three, Obesity, Physical activity, Management, Prevention, Undergraduate students in Edo State University Uzairue

**EXPERIMENTAL MODELLING OF ATTITUDINAL FORECAST OF TEAM BUILDING USING THE INVENTED TRAINING MODEL OF EFEBERE HENRY AKPOJUBARO: WINNING BY THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS NUMBER THREE, FOUR, EIGHT, NINE, TEN, SIXTEEN AND SEVENTEEN**

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**Abstract:** This paper scrutinizes experimental attitudinal forecast of Team Building using The Invented Training Model of Efegbere Henry Akpojubar. It addresses The United Nations Sustainable Development Goals Numbers three, four, eight, nine, ten, sixteen and seventeen. The study consists of a pre-intervention , intervention and post-intervention phases. A total of 121 each for the study and control groups at pre-intervention and post-intervention phases. For the intervention phase the conceptual framework of a mix of the Efegbere Henry Akpojubar invented Training Model consisting of the Health Belief Model and others were deployed. Descriptive and inferential statistics were deployed with p-value set at  $p < 0.01$ . Conclusively, experimental modelling of team building to win the way of the United Nations' Sustainable Development Goals improved efficiency of workforce in the healthcare system especially in their attitude. Federal Ministry of Health of Nigeria should consider the institutionalization of team building Invented Training Model of Efegbere Henry Akpojubar at all three levels of her healthcare system to reduce the incessant inter-professional conflicts that currently bedevil the healthcare system.

**Keywords:** Experimental Modelling, Team building; Attitudinal forecast; healthcare workers; United Nations Sustainable Development Goals three, four, eight, nine, ten , sixteen and seventeen ; Invented Training Model of Efegbere Henry Akpojubar

**KENTSEL DÖNÜŞÜM VE YENİLEME PROJELERİNDE DOĞA TEMELLİ ÇÖZÜMLER KULLANARAK SAĞLIK KORİDORLARI OLUŞTURMAK: TÜRKİYE'DE UYGULANABİLİRLİĞİNİN TARTIŞILMASI**  
**CREATING HEALTH CORRIDORS BY USING NATURE-BASED SOLUTIONS IN URBAN REGENERATION AND RENEWAL PROJECTS: DISCUSSING ITS APPLICABILITY IN TURKEY**

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**ÖZET**

Doğa temelli çözümler, iklim değişikliği, kentsel dönüşüm ve eskiyen altyapı gibi birçok kentsel soruna çözüm önerisi olarak sunulmakta ve Avrupa şehirlerinde uygulaması giderek yaygınlaşmaktadır. Doğa temelli çözümler doğadan ilham alarak doğal kaynakları kullanmakta ve aynı anda ekonomiye, topluma ve ekolojik sistemlere sürdürülebilir çözümler sunmaktadır. Ancak literatür incelendiğinde, araştırmaların çoğunun tek vaka çalışmasına odaklandığı ve bu nedenle doğa temelli çözümler hakkında mevcut bilginin kentsel politika ve planlamada nasıl etkili bir şekilde kullanılabileceği dair sınırlı sayıda araştırma bulunduğu tespit edilmiştir. Doğa temelli çözümlerin sağlık koridorları oluşturarak kullanılmasına yönelik yapılan çalışmalar ise oldukça sınırlıdır. Diğer yandan, doğa temelli çözümler bir fırsat olarak algılanırken, ekosistem süreçlerinin iyi anlaşılması ve çeşitli aktörlerin sürece dahil edilmesi gerektiğinden bir zorluk olarak da değerlendirilmelidir. Kentsel alanlarda yeni veya mevcut şehir içi koridorları planlarken, mekânsal, çevresel, sosyal ve ekonomik sürdürülebilirlik unsurlarını dikkate almak gerekmektedir. Kentsel dönüşüm alanlarında ise, mekânsal ve ekonomik kriterlerin yanı sıra, sosyal etkiler de oldukça önemli bir role sahiptir. Türkiye'de gecekondular ve deprem nedeniyle kentsel dönüşüm ihtiyacı diğer ülkelere göre daha fazladır ve bu projelerin sosyal boyutu sıklıkla tartışma konusu olmaktadır. Araştırma kapsamında, farklı Avrupa ülkelerindeki uygulamalar incelenmekte ve yöntemler sonuçları ile birlikte karşılaştırılmaktadır. Avrupa Birliği ve UN-HABITAT desteği ile gerçekleştirilmiş olan URBINAT Projesi kapsamında belirlenmiş olan doğa temelli çözümlerin Türkiye'deki kentsel dönüşüm projelerinde uygulanabilirliği tartışılmakta ve örnek bir proje üzerinden sağlık koridoru açılmasının olası etkileri değerlendirilmektedir. Kentsel dönüşüm alanlarında doğa temelli çözümler kullanılarak bir sağlık koridoru oluşturulması, hem iklim değişikliğinden kaynaklanan sorunlara alternatif ve sürdürülebilir çözümler sunmakta hem de sosyal açıdan sürdürülebilirlik sağlamaktadır.

**Anahtar Kelimeler:** Sağlık Koridoru, Doğa Temelli Çözümler, Kentsel Dönüşüm.



## ABSTRACT

Nature-based solutions are proposed as remedies for various urban issues such as climate change, urban transformation, and aging infrastructure, and their application is increasingly prevalent in European cities. Nature-based solutions, inspired by nature, utilize natural resources while simultaneously providing sustainable solutions for the economy, society, and ecological systems. However, a review of the literature reveals that most studies focus on single case studies, leading to a limited amount of research on how existing knowledge about nature-based solutions can be effectively utilized in urban policy and planning. Furthermore, studies on the application of nature-based solutions to create health corridors are quite limited. On the other hand, while nature-based solutions are perceived as an opportunity, they should also be regarded as a challenge due to the need for a thorough understanding of ecosystem processes and the involvement of various stakeholders. When planning new or existing urban corridors, it is essential to consider spatial, environmental, social, and economic sustainability factors. In the context of urban transformation, social impacts, in addition to spatial and economic criteria, play a significant role. In Turkey, the need for urban transformation due to informal housing (slums) and earthquakes is more pronounced compared to other countries, and the social dimension of these projects is frequently debated. This research examines practices in different European countries and compares methods and results. The applicability of nature-based solutions defined within the URBINAT Project, supported by the European Union and UN-HABITAT, to urban transformation projects in Turkey is discussed, and the potential effects of creating a health corridor through a case study project are evaluated. Utilizing nature-based solutions to create a health corridor in urban transformation areas not only provides alternative and sustainable solutions to problems arising from climate change but also ensures social sustainability.

**Keywords:** Health Corridor, Nature-Based Solutions, Urban Transformation.

**ÇOCUKLARA YABANCI DİL OLARAK FRANSIZCA ÖĞRETİMİ KİTABI "LES LOUSTICS A2.1"DEKİ GÖREVLERİN İNCELENMESİ  
ANALYSIS OF TASKS IN "LES LOUSTICS A2.1", FRENCH AS A FOREIGN LANGUAGE TEXTBOOK FOR CHILDREN**

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**ÖZET**

Bu bildirinin amacı, öğrenenlerin ve toplumun yeni ihtiyaçlarına göre sürekli olarak geliştirilen yabancı dil olarak Fransızca öğretiminin, eylem odaklı yaklaşımın ortaya çıkması ile çocuklara yabancı dil öğretim kitabı "Les Loustics A2.1"deki görevlerin incelenmesine dikkat çekmektir. Bunun için öncelikle Diller için Avrupa Ortak Başvuru Metni (DOBM), geçmişten günümüze kadar tarihte yer edinen çeşitli yabancı dil öğretim yöntemleri ve özellikle öğrenenleri sosyal aktörler olarak adlandıran eylem odaklı yaklaşım üzerine çalışılmıştır. Daha sonra bu alandaki makale, tez ve kitaplar incelenmiştir. Araştırma süreci içerisinde arama motorlarına ve YÖK Ulusal Tez Merkezi'ne, eylem odaklı yaklaşımla çocuklara yabancı dil öğretimi, erken yaşta Fransızca öğrenimi vb. ifadeler yazılmıştır. Fakat, ilgili literatür taramasında "Les Loustics A2.1"deki görevler üzerine ulusal herhangi bir araştırmaya rastlanmamıştır. Bununla birlikte eylem odaklı yaklaşım ve görevler konusu ile ilgili yaklaşık 12 kitap, 14 makale, 3 tez çalışmasına ulaşılmıştır. Bu sebeple bu alanda çalışmanın yararlı olacağı düşünülüp, eylem odaklı yaklaşım benimsenerek yazılan Les Loustics A2.1 adlı kitap aracılığıyla verilen görevlerden söz edilmiştir. Çalışmada nitel araştırma yöntemlerinden yazılı doküman analizi kullanılmıştır. Bu sayede çalışmanın sonucunda sözü edilen kitapta verilen görevlerin, 6 ila 10 yaş aralığı grubundaki çocuklara uygunluğu, üzerine çalıştıkları dil becerisi ile uyumu, motive edici yönleri ve ders sürecine dâhil edilebilirliği saptanmaya çalışılmıştır.

**Anahtar Kelimeler:** çocuklara yabancı dil öğretimi, eylem odaklı yaklaşım, Fransız dili eğitimi

**ABSTRACT**

The objective of this paper is to highlight the analysis of the tasks presented in "Les Loustics A2.1", a foreign language teaching textbook intended for children, within the context of the action-oriented approach to teaching French as a foreign language (FLE). To achieve this aim, the study first examines the Common European Framework of Reference for Languages (CEFR), various historical foreign language teaching methodologies, and, particularly, the action-oriented approach that positions learners as social actors. Subsequently, relevant literature, including articles, theses, and books within this domain, was scrutinized. Throughout the research process, online search engines and the YÖK National Thesis Center were utilized

to query topics related to the teaching of foreign languages to children using an action-oriented approach and the early acquisition of French. However, the literature review revealed the absence of any national research concerning the tasks found in "Les Loustics A2.1." Additionally, approximately twelve books, fourteen articles, and three theses related to the action-oriented approach and associated tasks were identified. Consequently, it was determined that further investigation in this area would be advantageous; thus, the tasks outlined in "Les Loustics A2.1," developed in accordance with an action-oriented framework, were examined. The research is made through written document analysis, a qualitative research method. We are aiming at assessing the appropriateness of the tasks provided in the book for children aged six to ten, their alignment with the language skills targeted, their motivational characteristics, and their feasibility for integration into the teaching process.

**Keywords:** teaching foreign languages to children, action-oriented approach, French language education

## GLOBAL FAKTÖRLERİN BIST100 ENDEKSİNE ETKİSİ

Emre ÜNAL<sup>1</sup>  
Alparslan YUVANÇ<sup>2</sup>

### Öz

Bu çalışmada, BIST100 ile altın fiyatı, petrol fiyatı, döviz kuru, VIX ve Bitcoin fiyatı arasındaki bağlantıyı araştırmak amacıyla vektör otoregresyon (VAR) analizi ve Granger nedensellik testleri kullanılmıştır. Analiz, Şubat 2012'den Şubat 2024'e kadar olan günlük ve aylık verileri içermektedir. VAR analizine göre, BIST100 endeksi en çok kendi performansından etkilenmiştir, bunu döviz kuru ve faiz oranı takip etmektedir. Araştırma, BIST100 endeksinin VIX'ten önemli derecede etkilendiğini ortaya koymuştur. Ayrıca, Bitcoin'in zamanla BIST100 üzerindeki etkisinin arttığı tespit edilmiştir. Bu durum, kripto paraların borsa performansını açıklamada daha önemli hale geldiğini göstermektedir. Nedensellik testlerinden elde edilen bulgular, döviz kurundan BIST100'e doğru anlamlı bir

Granger nedensellik ilişkisi olduğunu göstermiştir. Bu bulgular, yatırımcılar, portföy yöneticileri ve akademisyenler için önemli sonuçlar doğurmaktadır.

**Anahtar Kelimeler:** Altın, Bitcoin, Faiz, Hisse Senedi, Petrol, Yatırım

**JEL Sınıflandırma:** G10, G11, G17

## THE IMPACT OF GLOBAL FACTORS AND BITCOIN ON BIST100

### Abstract

In this work, the vector autoregression (VAR) analysis and Granger causality tests were employed to investigate the connection between the BIST100 and the gold price, the oil price, the exchange rate, the VIX, and the Bitcoin price. The analysis included datasets on a daily and monthly basis, spanning from February 2012 to February 2024. Based on the VAR analysis, the BIST100 index was most influenced by its own performance, followed by the exchange rate and the interest rate. The investigation revealed that the BIST100 index was also significantly impacted by the VIX. Furthermore, it was discovered that Bitcoin had a growing impact on the BIST100 over time. This implies that cryptocurrencies are becoming more significant in explaining the performance of the stock market. The findings of causality tests indicated that there was a significant Granger causality relationship from the exchange rate to BIST100. For investors, portfolio managers, and scholars, there are significant implications.

**Keywords:** Bitcoin, Gold, Interest, Investment, Oil, Stocks

**JEL Classifications:** G10, G11, G17

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**OKUL ÖNCESİ DÖNEM ÇOCUĞUNA SAHİP EBEVEYNLERİN TUTUMLARININ  
EBEVEYNLERE YÖNELİK DEĞİŞKENLERE GÖRE İNCELENMESİ**  
EXAMINATION OF THE ATTITUDES OF PARENTS WITH PRESCHOOL CHILDREN  
IN RELATION TO PARENTAL VARIABLES

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**Özet**

Bu çalışma okul öncesi çocuğuna sahip ebeveynlerin tutumlarının ebeveynlere yönelik değişkenlere göre incelenmesi amacıyla yapılmıştır. Bu genel amaç doğrultusunda ebeveynlerin tutumları sahip olduğu çocuk sayısı, anne yaş, baba yaş, anne öğrenim durumu, baba öğrenim durumu ve annenin çalışma durumu değişkenlerine göre incelenmiştir. Araştırmada nicel araştırma yöntemlerinden betimsel tarama modeli kullanılmıştır. Araştırmanın çalışma grubunu Ankara ilinin Çankaya ve Keçiören ilçesinde Milli Eğitim Bakanlığı'na bağlı resmi anasınıfları ve bağımsız anaokullarında eğitim alan, tipik gelişim özellikleri gösteren 4-6 yaş grubundaki 250 çocuğun ebeveyni oluşturmaktadır. Çalışma grubunun belirlenmesinde amaçlı örnekleme yöntemlerinden kartopu örnekleme yöntemi kullanılıp, kolay ulaşılabilirlik ilkesinden yararlanılmıştır. Araştırmada veri toplamak amacıyla "Kişisel Bilgi Formu" ve "Ebeveyn Tutum Ölçeği (ETÖ)" kullanılmıştır. Ebeveyn tutum ölçeği demokratik boyut 17 madde, otoriter boyut 11 madde, aşırı koruyucu boyut 9 madde, izin verici boyut 9 madde olup toplam 4 boyut ve 46 maddeden oluşmaktadır. Ölçek likert tarzındadır. Kişisel bilgi formunda ebeveynlerin çocuk sayısı, yaşları, anne çalışma durumu, anne öğrenim durumu ve baba öğrenim durumunu belirlemeye yönelik sorulara yer verilmiştir. Çalışmayla ilgili etik kurul izni alındıktan sonra veriler, gönüllük esasına dayalı olarak ebeveynlerden toplanmıştır. Çalışma sonucunda okul öncesi dönem çocuklarının ebeveynlerinin tutumlarında, ebeveynlerin sahip olduğu çocuk sayısı, anne yaş ve baba yaş bakımından anlamlı bir farklılık bulunmadığı tespit edilmiştir. Ebeveynlerin öğrenim durumu değişkenlerine göre bakıldığında istatistiksel olarak anlamlı bir fark bulunmuştur. Lise ve altı düzeyde mezuniyeti bulunan anne babaların tutumlarının, üniversite ve yüksek lisans mezunu anne babaların tutumlarına göre daha koruyucu olduğu görülmüştür. Annenin çalışma durumu değişkenine göre bakıldığında ise; çalışan annelerin demokrat tutumları çalışmayan annelere göre daha yüksek olduğu görülmüştür.

**Anahtar kelimeler:** Okul öncesi dönem, ebeveyn tutumları, ebeveyn-çocuk ilişkileri

**Abstract**

This study aimed to examine the attitudes of parents with preschool children based on variables related to the parents themselves. In line with this general aim, the parents' attitudes were analyzed in relation to the number of children they have, the age of the mother, the age of the father, the mother's educational level, the father's educational level, and the mother's

employment status. The research employed a quantitative research method, specifically the descriptive survey model.

The study group comprised 250 parents of 4-6-year-old children attending public preschools and independent kindergartens under the Ministry of National Education in the Çankaya and Keçiören districts of Ankara. The participants were selected using the snowball sampling method, which is one of the purposive sampling techniques, and the principle of accessibility was utilized. To collect data, a "Personal Information Form" and the "Parenting Attitude Scale (PAS)" were used. The Parenting Attitude Scale consists of four dimensions: democratic (17 items), authoritarian (11 items), overly protective (9 items), and permissive (9 items), making a total of 46 items. The scale is of the Likert type. The Personal Information Form included questions to determine the number of children, ages, mother's employment status, and the educational levels of both parents.

After obtaining ethical approval, data were collected from parents on a voluntary basis. The results revealed that there were no significant differences in parenting attitudes based on the number of children, the mother's age, and the father's age. However, there was a statistically significant difference based on the parents' educational levels. Parents with a high school diploma or lower were found to exhibit more protective attitudes compared to parents with a university or graduate degree. Regarding the mother's employment status, working mothers were found to have higher democratic attitudes compared to non-working mothers.

**Keywords:** Preschool period, parent attitudes, parent-child relationships

**PRODUCTION AND CHARACTERIZATION OF CARBON NANOTUBES FROM BIOCHAR UNDER MICROWAVE IRRADIATION.**

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**ABSTRACT**

Carbon nanotubes (CNTs) are widely used in a variety of fields to produce a diversity of products, including hydrogen storage systems, and field emitters. In the proposed study, CNTs synthesized via biochar under the microwave irradiation method. In this method, the combination of charcoal and ferrocene are used to synthesize CNTs from the biochar approach. Biochar samples for CNTs synthesis are made from pyrolyzed agro-industrial waste such as rapeseed cake, hazelnut hulls, wheat straw, and oat hulls at different temperatures. The biochar was produced from agro-industrial biomass. During experiments, 100g of biomass was placed in a microwave reactor. The samples were pyrolyzed at 400 °C to 600°C. SEM analysis was used to confirm the morphology of CNTs. SEM micrographs revealed the perfect structure of multiwall carbon nanotubes, while interlayers spacing was changed due to variation of catalysts and measured about 0.34nm. Further, the optical properties were examined by UV-visible spectroscopy. In the UV, one band is clear at 240 nm region due to resonance of nanotubes  $\pi(\pi)$  electrons of carbon nanotubes. XRD was used to analyze the glassy structure of prepared CNTs under microwave revealed that the creation and growth of CNTs were mostly influenced by microwave irradiation and the ferrocene catalyst. The structure of CNTs was developed under microwave heating and in the presence of ferrocene catalyst. To research how nitrogen impurities adhere to CNTs, FTIR experiments were conducted in the 400–4000  $\text{cm}^{-1}$  range. The sample's FTIR spectra exhibit prominent peaks that correspond to C-H and C=C, respectively.

**RESEARCH WRITING DIFFICULTIES: INSIGHTS FROM EFL MASTER STUDENTS**

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**Abstract:**

Most research in research methodology focuses on how a researcher can do a research, collect data or construct is thesis. Yet, little attention has been given to why researchers, including Master students' thesis projects are not progressing favourably. Accordingly, the present study endeavours to find out the difficulties students face when conducting dissertation projects for the fulfillment of their Master Degree in the Department of English of the University of Tlemcen. To this end, interviews and group discussions were conducted with 10 Master 2 EFL (English Foreign Language) students during the academic year 2023-2024. The results show that there are five problematic areas about the challenges in undergraduate thesis projects. They are student motivation; student-supervisor relationships, skills and knowledge; student's workload; and resources and ICT tools. Seeing that these areas are multifaceted, further research should focus on the complexity of these issues to give a general picture on why students have experienced those problematic areas while carrying out their research works.

**Keywords:** Master dissertation projects; research writing; difficulties; Master 2 students; Department of English



**YAPIM TEKNİKLERİ VE MALZEME: MEZOPOTAMYA' DAN BİR ÖRNEK**  
**CONSTRUCTION TECHNIQUES AND MATERIALS: AN EXAMPLE FROM**  
**MESOPOTAMIA**

**Fatma Tunçay**

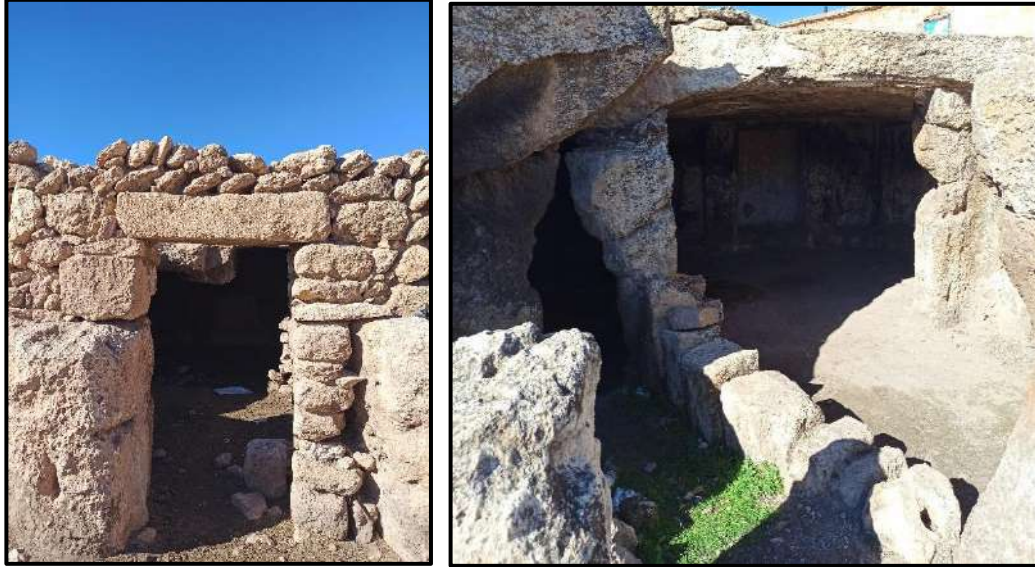
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**ÖZET**

Mezopotamya'da tarih boyunca yapılan yaşam alanlarında yöreden yöreye değişen malzeme tipi ve yapım tekniği iklim değişikliğinden dolayı çeşitlilikler göstermiştir. Özellikle hava koşullarının değişmesi ve yağış rejiminin de getirdiği yaşamsal farklılıklar yapıların çeşitlenmesinde de önemli rol oynamaktadır. Bunlar insanın yaşamsal fonksiyonlarını rahatça yapabileceği ayrıca dış etkenlerden korunabilmesi ile ortaya çıkmış bir mimari tasarımdır. İnsanın ilk çağlarında mağaraların kullanılması zaman ilerledikçe tecrübe kazanımı ile birlikte yaşamsal fonksiyonlarının gelişimini sağlamıştır. Mağaralarda güneş ışığını yeterli miktarda alamayan ve zaman geçtikçe doğadaki malzemeleri (taş, ağaç, toprak vb.) yapıda kullanmasını öğrenen insanlar elde ettikleri malzemelerle barınma birimleri inşa etmişlerdir. Yaptıkları yapılarla yaşam alanlarını mağaralardan çıkarıp doğa ile bütünleştirmişlerdir. Bunu yaparken yapım tekniği olarak hayvanların yuva inşa etme tekniklerinden faydalanmışlardır. Mezopotamya'da bulunan Soğmatar tarihi alanında mağaraların içinde ve dışında bulunan kaya ve kayaçların üzerine yapılan rölyefler ve oymalar bize bulunduğu çağı yansıtmaktadır. Soğmatar 'da erken tunç çağına ait çanak çömleklerin de bulunması ve ana kaya üzerine inşa edilen yapıların var olması o dönemdeki insanların daha çok toprak ve kaya malzemeleriyle yaşam alanlarını oluşturduklarını göstermektedir. Doğal oyuklar insan eliyle şekil verilerek günümüze kadar ayakta kalmış ve farklı teknikler kullanılmıştır (Şekil.1). Soğmatarın bulunduğu bölgede yirmi tane taş ocağı vardır. Yapı birimleri için malzeme taş ocaklarından sağlanmaktadır. Bu bilgiler o dönemin yaşamlarını, kullandıkları yapı tekniklerini ve malzemelerini anlatmaktadır.

Bu çalışma; araştırmacı tarafından konularına, amaçlarına, yöntemlerine, bulgularına ve sonuçlarına göre kategorilere ayrılarak yürütülmüştür. Çalışmanın amacı, Mezopotamya'da yer alan Soğmatarın yapım teknikleri ile kullanılan malzemelerin tarihteki yerinin önemi aktarılmasına yer verilmiştir. Çalışmanın yöntemi, Soğmatar alanında bulunan, kayalar üzerinde inşa edilmiş barınma birimlerinin analizi, literatür çalışmaları, fotoğraf çekimleri ve eskiz çizimleri yapılarak veriler elde edilmiştir. Araştırmanın sonucuna göre bu veriler malzemenin ve teknik kullanımının tarihe ışık tuttuğu tespit edilmiştir (Tunçay vd. Ekim 2021, Tunçay vd. Ocak 2022).

**Anahtar Kelimeler:** Yapım Teknikleri, Malzeme, Mezopotamya, Soğmatar.



Şekil.1 Soğmatar yapım tekniği ve malzeme (Yapı birimleri) Tunçay F. Arşivi 2022

### ABSTRACT

The type of materials and construction techniques that have changed from region to region in the living spaces built throughout history in Mesopotamia have varied due to climate change. In particular, changes in weather conditions and vital differences brought about by the precipitation regime play an important role in the diversification of buildings. These are architectural designs that allow people to carry out their vital functions comfortably and be protected from external factors. The use of caves in the early ages of humanity enabled the development of vital functions along with the gain of experience as time progressed. People who could not get enough sunlight in the caves and who learned to use natural materials (stone, wood, soil, etc.) in construction over time, built shelters with the materials they obtained. With the structures they built, they took their living spaces out of the caves and integrated them with nature. While doing this, they used the nest-building techniques of animals as a construction technique.

The reliefs and carvings made on the rocks and rocks inside and outside the caves in the Soğmatar historical area in Mesopotamia reflect the age in which they were found. The presence of pottery from the early bronze age in Soğmatar and the existence of structures built on the bedrock show that people of that period created their living spaces mostly with soil and rock materials. Natural cavities have been shaped by human hands and have survived until today, and different techniques have been used (Figure 1). There are twenty quarries in the region where Soğmatar is located. The materials for the building units are provided from quarries. This information describes the lives of that period, the building techniques and materials they used.

This work; It was carried out by the researcher by dividing it into categories according to its subjects, purposes, methods, findings and results. The aim of the study is to convey the importance of the construction techniques of Soğmatar in Mesopotamia and the historical place of the materials used. The method of the study was to obtain data by analyzing the shelter units built on rocks in the Soğmatar area, literature studies, photography and sketch drawings. According to the results of the research, it was determined that these data shed light on the history of the use of materials and techniques (Tunçay et al. October 2021, Tunçay et al. January 2022).

**Keywords:** Construction Techniques, Materials, Mesopotamia, Soğmatar.

## EXPLORING FACTORS ASSOCIATED TO HYGIENE ERRORS AMONG YOUNG DOCTORS

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### INTRODUCTION

In the healthcare setting, hygiene practices are paramount to ensuring patient safety and reducing the incidence of healthcare-associated infections. Among medical professionals, young doctors are particularly critical to this dynamic due to their recent integration into clinical practice and their influence on the future of healthcare standards. However, the transition from theoretical knowledge to practical application often reveals gaps in adherence to hygiene protocols.

### AIM

This study aims to explore the various factors associated with hygiene errors among young doctors.

### METHODS

This study, conducted in August 2023, adopted a cross-sectional approach. The research took place in the university hospitals of Sfax and focused on a representative sample of young doctors. The participants were selected using a two-stage stratified sampling method, ensuring a comprehensive and diverse representation for the study.

### RESULTS

A total of 218 young doctors completed the questionnaire, yielding a response rate of 60%. The average age of the study participants was 27.3 years ( $\pm 2.2$ ), with 57.3% being female (N=125). Among them, 72% were residents (N=157), and 28% were interns (N=61). Of these respondents, 169 young doctors (77.5%) reported having made a hygiene error in the last three months. The reported causes of errors included high workload (N=171; 78.4%), lack of equipment (N=111; 50.9%), absence of clear procedures (N=106; 48.6%), lack of communication (N=91; 41.7%), unclear task definition (N=87; 39.9%), lack of staff (N=85; 39%), lack of supervision (N=82; 37.6%), and patient-related factors (N=54; 24.8%).

Our findings revealed significant associations between hygiene errors and several factors. Lack of staff (OR: 4.077; 95% CI: 1.586-10.478;  $p=0.004$ ) emerged as the most significant factor, followed by excessive night shifts (OR: 3.060; 95% CI: 1.495-6.263;  $p=0.002$ ), lack of equipment (OR: 2.762; 95% CI: 1.424-5.355;  $p=0.002$ ), tiring shifts (OR: 2.596; 95% CI: 1.036-6.506;  $p=0.036$ ), and excessive working hours (OR: 2.340; 95% CI: 1.182-4.630;  $p=0.013$ ).

In addition, committing hygiene errors was significantly more frequent among young doctors who suffered from high emotional exhaustion (OR : 3.336 ; 95% CI : 1.937-5.747 ;  $p<0.001$ ) and low personal accomplishment (OR : 2.246 ; 95% CI : 1.098-4.595 ;  $p=0.024$ )

### CONCLUSION

By addressing these factors through enhanced education, supportive supervision, and robust institutional policies, healthcare systems can significantly reduce the incidence of hygiene errors.

**Keywords:** Hygiene errors - Young Doctors - Associated factors

## UNDERSTANDING ASTHMA IN RURAL POPULATIONS: IMPACT AND MANAGEMENT CHALLENGES

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### INTRODUCTION

Asthma is a chronic respiratory condition that poses substantial challenges to individuals and healthcare systems alike. The severity of asthma can vary significantly between urban and rural populations due to differences in environmental exposures, access to healthcare, and socioeconomic factors. Rural areas often face unique challenges, including limited access to specialized medical care, lower socioeconomic status, and higher exposure to environmental allergens and pollutants.

### AIM

This study aims to determine the severity and frequency of asthma exacerbations in rural populations and evaluate the quality of their lifestyles.

### METHODS

This study employed a cross-sectional research design including a representative sample of asthma patients living in rural residence. Data collection was conducted in January 2024 in the university hospital Hedi CHAKER of Sfax through the distribution of structured questionnaires to the selected participants.

### RESULTS

Among the 190 patients consulting the Pulmonology Department of the University Hospital of Sfax, 67 patients resided in rural areas. Of these, 50.7% were female (N=34) and 49.3% were male (N=33). Forty-five patients were married (67.2%), 83 patients had a primary level of education (49.3%), and 26 patients were illiterate (38.8%). A total of 52.2% were unemployed (N=35), and 59.7% had a low socioeconomic level (N=40), while 40.3% had a moderate socioeconomic level. The majority (N=62; 92.5%) did not practice physical activities, and 30 patients were smokers (44.8%). Fifty-two patients (77.6%) had a medical history of chronic disease, including 27 patients with allergic rhinitis (52%). Furthermore, 28.4% were exposed to humidity (N=19), 67.2% lived with animals in their homes (N=45), and 74.6% were exposed to allergens in their daily lives.

Regarding asthma characteristics, 16.4% had severe persistent asthma (N=11), 41.8% had moderate persistent asthma (N=28), 22.4% had mild persistent asthma (N=15), and 19.4% had intermittent asthma (N=13). Fifty-three patients (79.1%) were hospitalized in the last year for respiratory issues, and 61 patients had at least one asthma attack in the last month.

According to our findings, 51 patients (76.1%) had a low level of asthma self-management, 13 patients (19.4%) had a moderate level, and only 3 patients (4.5%) had a high level. The prevalence of controlled asthma was 23.8% (N=16), with 11.9% having well-controlled asthma (N=8) and 11.9% having partially controlled asthma (N=8), while 51 patients (76.1%) had uncontrolled asthma.

### CONCLUSION

To address these challenges, it is essential to improve healthcare infrastructure, increase access to asthma education and management programs, and reduce environmental risks in rural areas. Implementing targeted interventions and enhancing healthcare accessibility can significantly improve the quality of life and health outcomes for asthma patients in rural communities.

**Keywords:** Rural – Asthma – Patients – Management

## FACTORS ASSOCIATED WITH POSTPARTUM DEPRESSION: ABOUT 59 CASES

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### INTRODUCTION

Postpartum depression (PPD) is a significant public health issue affecting maternal well-being worldwide. Understanding the factors associated with PPD is crucial for early detection and intervention. This study explores various sociodemographic and clinical factors potentially linked to PPD among patients in a hospital setting.

### AIM

The aim of this study is to investigate factors associated with PPD among a sample of patients hospitalized in the Obstetrics and Gynecology Department in Sfax.

### METHODS

The study used a cross-sectional research design conducted in a hospital setting, focusing on women admitted to the Obstetrics and Gynecology Department in Sfax. Data were collected using structured questionnaires distributed to the participants.

### RESULTS

A total of 59 women participated in the survey. Among them, 66.1% were aged between 30 and 40 years old (n=39). The relationship with their husbands was considered average or poor by 28.8% (n=17) and good by 71.2% (n=42). In most cases, the pregnancy was uncomplicated (n=50; 86.4%), while in 13.6% of cases, it was associated with complications (n=10).

Regarding postpartum data, breastfeeding was mixed in 39% of cases (n=23), exclusive maternal breastfeeding in 49.1% (n=29), and bottle-feeding in 11.9% (n=7). 59.3% of women cared for their children alone (n=35), while 40.7% received assistance from a family member (n=24). Late postpartum complications were present in 13.6% of cases (n=8), and 52.5% experienced moments of stress during pregnancy and the postpartum period (n=31). These stressors included environmental factors (n=19, 32.2%) and factors related to the health of the participants and/or newborns (n=18; 20%).

Within the first week postpartum, 30.5% of participants in the study were identified as experiencing PPD (n=19). Our survey indicated a relationship between breastfeeding mode and the occurrence of PPD. Several factors were associated with PPD including having a poor or average marital relationship (p = 0.011), single-handedly caring for the baby during the postpartum period (p = 0.011), experiencing late postpartum complications (p = 0.025), and lacking information on PPD (p = 0.032).

### CONCLUSION

These findings underscore the importance of early screening and support initiatives aimed at addressing these factors to mitigate the risk and impact of postpartum depression on maternal health.

**Keywords :** Prevalence - Postpartum Depression - Women

**ASPERGILLUS NIGER IS A SERIOUS DISEASE THAT THREATENS ONION CROPS AND MANY STRATEGIC CROPS.**

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**Abstract:**

*Aspergillus niger* is a fungus and one of the most common species of the genus *Aspergillus*.

It causes a disease called "black mold" on certain fruits and vegetables such as grapes, apricots, onions, and peanuts, and is a common contaminant of food. It is ubiquitous in soil and is commonly reported from indoor environments, where its black colonies can be confused with those of *Stachybotrys* (species of *Rhopalocystis nigra* (Tiegh.) Grove *Sterigmatocystis nigra* (Tiegh.) which have also been called "black mold").

Some strains of *A. niger* have been reported to produce potent mycotoxins called ochratoxins, other sources disagree, claiming this report is based upon misidentification of the fungal species. Recent evidence suggests some true *A. niger* strains do produce ochratoxin A, it also produces the isoflavone orobol.

*Aspergillus niger* causes black mold of onions and ornamental plants. Infection of onion seedlings by *A. niger* can become systemic, manifesting only when conditions are conducive. *A. niger* causes a common postharvest disease of onions, in which the black conidia can be observed between the scales of the bulb. The fungus also causes disease in peanuts and in grapes.

Human and animal disease *A. niger* growing on onion ... *Aspergillus niger* is less likely to cause human disease than some other *Aspergillus* species. In extremely rare instances, humans may become ill, but this is due to a serious lung disease, aspergillosis, that can occur. Aspergillosis is, in particular, frequent among horticultural workers who inhale peat dust, which can be rich in *Aspergillus* spores.

For this study, we isolated *aspergillus niger* from onion in PDA medium.

**Keywords:** *Aspergillus niger*, phytopathogenic fungi, mycotoxins, food security.

**GH 16 A STRAIN OF ACTINOBACTERIA ISOLATED FROM A SOIL OF AN ALGERIAN DESERT WITH A POTENTIAL TO INHIBIT PHYTOPATHOGENIC FUNGI.**

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**Abstract:**

Every year, between 10% and 28% of agricultural crops are lost, and this is due to agricultural pests. among the most important fungal pests we have: *Botrytis ceneria*, *Fusarium oxysporum*, *Alternaria*, *Phytophthora infestans* ... these have a negative impact on health, food safety and lead to significant losses.

Under certain climatic or storage conditions, these microorganisms can develop and lead to the production of mycotoxins, which can be harmful to the health of animals and humans, causing a number of disorders and even serious illnesses. These toxic metabolites therefore represent a major health problem.

The traditional chemical means used for the control of these plant pathogens are sometimes ineffective; costly and, above all, recognized for its side effects on the environment and the health of the consumer.

Faced with these problems, the search for new bioactive molecules is more than necessary to fight against these phytopathogens. Among the most promising sources of bioactive substances are microorganisms, especially actinobacteria, which are gram-positive bacteria with a high percentage of G+C, the majority of which tend to form branched mycelium. Actinobacteria characterize the most important part of the microbial community as they are the sources of novel bioactive compounds.

In this study, we aim to isolate actinomycetes from a desert in Algeria and test the extent of their ability to remove plant-pathogenic fungi.

Isolation of actinobacteria carried out on chitin-vitamin B medium; after pretreatment with Ca Co<sub>3</sub>, followed by incubation at 30C for 21 days; enumeration is done using a colony counter; and purification on ISP2 medium by successive transplanting until pure colonies are obtained. The search for antimicrobial activity carried out by the cross-streak technique on ISP2 medium. the results of the antibacterial activity indicate a significant important inhibition of some phytopathogenic fungal.

**Keywords:** Actinobacteria; Inhibition; phytopathogenic fungal; Desert of Algeria.

## ON THE HYPER-ORDER OF SOLUTIONS OF LINEAR DIFFERENTIAL EQUATIONS

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### ABSTRACT

Growth of solutions for second-order differential equations in the unit disc is investigated through some limit form with a comparison of coefficients' characteristic functions. Some sufficient conditions are given for every non-zero solution to be of infinite order when coefficients of the equations are admissible. Moreover, a general conclusion is drawn on the fixed points in the solutions. The above results extend upon those of Heittokangas and Cao Tingbin. . In addition, for the  $n$ -iterated order of meromorphic function in is defined by

$$\sigma_n(f) = \limsup_{r \rightarrow 1^-} \frac{\log_n^+ T(r, f)}{-\log(1-r)},$$

where  $T(r, f)$  is the Nevanlinna characteristic function of  $f$ . For an analytic function in  $D$  we have also

$$\sigma_{M,n}(f) = \limsup_{r \rightarrow 1^-} \frac{\log_{n+1}^+ M(r, f)}{-\log(1-r)},$$

where. If  $f$  is analytic in  $D$ , Tsuji [Tsu, p.205] gives that

For example, the function satisfies and  $\sigma_{M,1}(f) = \mu$ .

Obviously, we have

The inequalities (00) are the best possible in the sense that there are analytic functions and  $h$  such that and. However, it follows by Proposition 2.2.2 in [Lain] that for. The type of a meromorphic function in  $D$  with is defined by

$$\tau_n(f) = \limsup_{r \rightarrow 1^-} (1-r)^{\sigma_n} \log_{n-1}^+ T(r, f);$$

and if  $f$  is an analytic function in  $D$  with we have also

$$\tau_{M,n}(f) = \limsup_{r \rightarrow 1^-} (1-r)^{\sigma_n} \log_n^+ M(r, f).$$

We signal that also by Proposition 2.2.2 in [Lain], we have for .

*Definition* meromorphic function in the unit disc is called admissible if

$$\limsup_{r \rightarrow 1^-} \frac{T(r, f)}{-\log(1-r)} = \infty$$

and nonadmissible if

$$\limsup_{r \rightarrow 1^-} \frac{T(r, f)}{-\log(1-r)} < \infty.$$

The growth index of the iterated order of a meromorphic function in  $D$  is defined by



We will use the notation  $\lambda_n$  to denote the  $n$ -iterated exponent of convergence of the zero-sequence of meromorphic function  $f$  and  $\bar{\lambda}_n$  to denote the  $n$ -iterated exponent of convergence of distinct zero-sequence of  $f$ , which are defined as the following:

$$\lambda_n(f) = \limsup_{r \rightarrow 1^-} \frac{\log N(r, \frac{1}{f})}{-\log(1-r)} \quad \text{and} \quad \bar{\lambda}_n(f) = \limsup_{r \rightarrow 1^-} \frac{\log \bar{N}(r, \frac{1}{f})}{-\log(1-r)}.$$

**Keywords:** Hyper-Order, characteristic functions, growth of solutions, complex.

## YÖNEYLEM ARAŞTIRMASI DERSİ KONULARININ DERS ETKİNLİĞİNİ BELİRLEYEN KRİTERLERLE SIRALANARAK ÖĞRENCİ GÖZÜNDE EN VERİMLİ KONUNUN BELİRLENMESİNE DAİR BİR ÇKKV UYGULAMASI

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### Özet

İlk kez II. Dünya Savaşı sırasında savaş alanına cephane taşınması için en uygun nakliye şeklinin hesaplanmasında kullanılan Yöneylem Araştırması, belirli bir hedef doğrultusunda en uygun çözümü bulmaya ve maksimum faydayı sağlamaya yönelik geliştirilmiştir. Yöneylem Araştırması, mevcut problemleri çözmek için istatistik, iktisat ve matematiksel modelleme gibi farklı bilim dallarını bir araya getiren multidisipliner bir bilim dalıdır. Ülkemizde de tıpkı Dünya’da olduğu gibi öncelikle askeri alanda kullanılan bu bilim dalı daha sonra üniversitelerde, kamu kurumlarında ve özel sektörde kullanılmaya başlamıştır. Yöneylem Araştırması teknikleri Endüstri Mühendisliğinde ve İşletme anabilim dalında sıklıkla kullanılmakta ve her iki bölümde de zorunlu ders olarak okutulan dersler arasında yer almaktadır. İşletmelerin kuruluş yerinin belirlenmesinde, toplu taşıma araçları için rota belirlemede, minimum maliyetle maksimum fayda sağlanmasını amaçlayan birçok işletme probleminde, taşıma problemlerinde, tedarik zincirinde, tıp alanında ve daha birçok konuda kullanılmaya uygundur. Yöneylem Araştırması problemlerinde en yüksek veya en düşük değeri bulmayı sağlayan amaç fonksiyonu ve çözüm kümesini belirleyen kısıtlar vardır. Uygun çözüm hem amaç fonksiyonunu hem de kısıtları aynı anda sağlayan çözümdür. Uygun çözümler içinden en ideale optimum çözüm denir. Türkiye’de Yöneylem Araştırması teknikleri 1960’lardan sonra üretim, pazarlama, savunma, tıp, ulaşım, taşımacılık gibi birçok alanda kullanılmaya başlanmıştır. Doğrusal Programlama, Tam Sayılı Programlama, Hedef Programlama, Ulaştırma ve Atama Problemleri, Karar Teorisi, Oyun Teorisi, Simülasyon gibi konuları kapsayan Yöneylem Araştırması günlük hayatta birçok problemin çözümüne uygun oluşu, gelişen, güncellenen yapısıyla İşletme ve Endüstri Mühendisliği öğrencileri ve bilim insanları için önem arz etmektedir. Bu yönüyle Yöneylem Araştırmasını ders olarak alan öğrencilerin dersin içeriği ile ilgili fikirleri de önem arz etmektedir. Bu çalışmada İstanbul Üniversitesi ve Van Yüzüncü Yıl Üniversitesinde Yöneylem Araştırması dersi alan öğrencilerin ders konularının etkinliğini belirleyen kriterleri baz alarak konuları önem sırasına koymaları amaçlanmıştır. Bu amaçla Doğrusal Programlama, Hedef Programlama, Ulaştırma ve Atama Problemleri, Oyun Teorisi, Tam Sayılı Programlama, Karar Teorisi, Simülasyon konuları alternatifleri göstermek üzere bu alternatiflerin seçim ve sıralaması için; konunun anlaşılabilirliği, uygulamasının pratikliği, ilgi çekicilik, günlük hayata uyumu, akılda kalıcılığı kriterleriyle belirlenmeye çalışılmıştır. Çalışma problemine Çok Kriterli Karar Verme (ÇKKV) yöntemleri ile çözüm bulunmaya çalışılmıştır. Bu kapsamda alternatif seçimlerinde ÇKKV yöntemlerinden Simple Additive Weighting (SAW) ve Measurement Alternatives and Ranking According to COMpromise Solution (MARCOS) yöntemleri, seçimi etkileyen kriterlerin ağırlıklandırılmasında ise Step-Wise Weight Assessment Ratio Analysis (SWARA) yöntemi kullanılmıştır. Çalışmanın literatürde çok yer edinmeyen ÇKKV yöntemleriyle ÇKKV yazımına katkı sağlaması beklenmektedir. Ayrıca elde edilen sonuçların genişletilmesi veya farklı şekillerde uygulanmasıyla farklı ders içeriklerine uyarlanarak, öğrencilerin ders konuları hakkındaki fikirlerinin öğrenilmesine yardımcı olarak literatüre katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Yöneylem Araştırması, ÇKKV, SWARA, SAW, MARCOS

**AN MCDV APPLICATION TO DETERMINE THE MOST EFFICIENT SUBJECT IN THE EYES OF THE STUDENT BY RANKING THE TOPICS OF THE OPERATIONS RESEARCH COURSE WITH THE CRITERIA DETERMINING THE COURSE EFFECTIVENESS**

**Summary**

Operations Research, which was first used during World War II to calculate the most suitable mode of transportation for transporting ammunition to the battlefield, was developed to find the most suitable solution for a specific goal and to provide maximum benefit. Operations Research is a multidisciplinary science that brings together different disciplines such as statistics, economics and mathematical modeling to solve existing problems. In our country, just like in the world, this branch of science, which is primarily used in the military field, has then started to be used in universities, public institutions and the private sector. Operations Research techniques are frequently used in Industrial Engineering and Business Administration and are among the compulsory courses in both departments. It is suitable for use in determining the establishment location of businesses, determining routes for public transportation vehicles, many business problems aiming to provide maximum benefit with minimum cost, transportation problems, supply chain, medical field and many other issues. In Operations Research problems, there are constraints that determine the objective function and the set of solutions that allow to find the highest or lowest value. The appropriate solution is the one that provides both the objective function and the constraints at the same time. The most ideal of the suitable solutions is called the optimum solution. After the 1960s, Operations Research techniques in Turkey have started to be used in many areas such as production, marketing, defense, medicine, transportation, transportation. Operations Research, which covers topics such as Linear Programming, Integer Programming, Target Programming, Transportation and Assignment Problems, Decision Theory, Game Theory, Simulation, is important for Business and Industrial Engineering students and scientists with its suitability for solving many problems in daily life and its developing and updated structure. In this respect, the opinions of the students who take Operations Research as a course about the content of the course are also important. In this study, it is aimed that the students who take the Operations Research course at Istanbul University and Van Yüzüncü Yıl University will put the subjects in order of importance based on the criteria that determine the effectiveness of the course topics. For this purpose, Linear Programming, Goal Programming, Transportation and Assignment Problems, Game Theory, Integer Programming, Decision Theory, Simulation topics for the selection and ordering of these alternatives to show alternatives; The comprehensibility of the subject, the practicality of its application, its attractiveness, its adaptation to daily life, and its memorability have been tried to be determined by the criteria. It was tried to find a solution to the study problem with Multi-Criteria Decision Making (MCDF) methods. In this context, Simple Additive Weighting (SAW) method, which is one of the MCDF methods, was used in the selection of alternatives, and ENTROPI, Step-Wise Weight Assessment Ratio Analysis (SWARA), Criteria Importance Through Inter-Criteria Correlation) CRITIC methods were used in the weighting of the criteria affecting the selection. It is expected that the study will contribute to the MCDF literature with the methods of MCDF, which are not very common in the literature. In addition, it is thought that the results obtained will be adapted to different course contents by expanding or applying them in different ways, and will contribute to the literature by helping students learn their ideas about the course topics.

Keywords: Operations Research, SAW, SWARA, CRITIC, ENTROPI

**NEPHROPROTECTIVE ACTIVITY OF KUDZU ROOT EXTRACT IN  
STREPTOZOTOCIN INDUCED DIABETIC NEPHROPATHY IN RATS**

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**Abstract:** Diabetic nephropathy (DN) remains a prevalent complication of diabetes mellitus, necessitating novel therapeutic interventions. Present study investigates the nephroprotective effects of Kudzu root extract (KRE) in streptozotocin-induced diabetic nephropathy, with a focus on attenuating oxidative stress and ameliorating diabetic parameters. Diabetes was induced in male rats with a single injection of streptozotocin (55mg/kg/i.p). After 72 hours the rats were tested for diabetes, those rats showing blood glucose level above 250mg/dl were considered as diabetes and further tested for the development of nephropathy. Rats with diabetic nephropathy were treated with KRE (50 and 100mg/kg/p.o) for 2 week. At the end of treatment period various biochemical parameters and markers of oxidative stress were studied. Rats treated with KRE shows significant alteration in blood glucose levels, kidney function markers, markers of oxidative stress, membrane bound ATPases and Histopathological changes. In conclusion KRE showed significant nephroprotective effects which might be due to its strong antioxidant property.

**Keywords:** Diabetes nephropathy, oxidative stress, streptozotocin, Kudzu root extract, membrane bound phosphatases

**AA1050/CeO<sub>2</sub>/YUMURTA KABUĞU HİBRİT YÜZEY KOMPOZİTİN MİKROYAPI VE AŞINMA DAVRANIŞININ İNCELENMESİ**  
INVESTIGATION OF MICROSTRUCTURE AND WEAR BEHAVIOR OF  
AA1050/CeO<sub>2</sub>/EGGSHELL HYBRID SURFACE COMPOSITE

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**ÖZET**

Alüminyum metal matrisli kompozitler (AMMK) sahip oldukları önemli özellikler nedeniyle havacılık, otomotiv, denizcilik ve elektronik ekipmanları endüstrileri gibi birçok alanda yaygın kullanım bulmaktadır. Teknolojideki gelişmeler ve yeni gereksinimlere paralel olarak alüminyum metal matrisli kompozitlerin spesifik özelliklerini iyileştirmeye ve bu kompozitlerin üretim süreçlerini geliştirmeye yönelik araştırmalar sürekli hale gelmiştir. Yüzey özelliklerinin önemli olduğu çoğu çalışma koşulları için AMMK'ları kütle olarak üretmek zahmetli bir proses haline gelmektedir. Özellikle geliştirilmiş aşınma, korozyon ve/veya yorulma direncinin istendiği uygulamalarda, mühendislik malzemesinin yüzey metal matrisli kompozit (YMMK) şeklinde tasarlanması daha tercih edilebilir bir yapıdır. Buna ilaveten, YMMK'nın kendisinden beklenen özellikleri yeterli derecede sergileyebilmesi için kullanılan üretim yöntemi de büyük öneme sahiptir. YMMK üretiminde termal püskürtme veya lazer esaslı yöntemlerin kullanılması takviye ve matris malzemesi arasında istenmeyen bileşiklerin oluşumuna ve kompozit özelliklerinin kötüleşmesine sebep olabilmektedir. Sürtünme karıştırma prosesi (SKP) ekonomik, verimli ve çevreci bir katı hal üretim yöntemidir. Yöntemde matris malzemesi yüzeyine açılan kanal/delikler içine doldurulan takviye partiküller, dönme ve ilerleme hareketi yapan bir takım ile yapıya karıştırılmaktadır. Bu çalışmada, SKP ile seryum dioksit ve yumurta kabuğu takviyeli alüminyum hibrit yüzey kompozitinin üretimi iki pasoda gerçekleştirilmiştir. Kompozit üretiminde kullanılan takviye partiküller kütlece 1:1 oranında karıştırılmıştır. Elde edilen hibrit toz ise matris malzemesine (A11050) hacimce iki farklı oranda (%9 ve %13,5) karıştırılmıştır. Üretilen yüzey kompozitlerin kesitleri stereo, optik ve taramalı elektron mikroskopları ile incelenmiş ve kesitte oluşan farklı bölgelerin mekanik özellikleri Vickers mikrosertlik cihazı kullanılarak ölçülmüştür. Yüzey kompozitlerinin aşınma davranışlarını belirlemek için triboloji testleri de gerçekleştirilmiştir. Elde edilen bulgulara göre ana malzemeye kıyasla yüzey kompozitlerinin sertliğinde ~%44 artış ve aşınma oranında %21'in üzerinde düşüş gerçekleştiği gözlemlenmiştir.

**Anahtar Kelimeler:** Sürtünme karıştırma prosesi (SKP), alüminyum matrisli yüzey kompoziti, mikroyapı, aşınma direnci

**ABSTRACT**

Aluminum metal matrix composites (AMMCs) are widely used in various fields such as aviation, automotive, marine, and electronics equipment industries due to their remarkable features. In parallel with the advancing technology and new requirements, the research on improving the specific characteristics of aluminum matrix composites and developing the

manufacturing processes of these composites has become continuous. For various operating conditions where the surface properties are crucial, the fabrication of AMMCs as bulk material becomes an inconvenient process. It is a preferable structure for designing engineering materials as surface metal matrix composite (SMMC), especially in applications requiring improved wear, corrosion, and/or fatigue resistance. In addition, the employed manufacturing process is also of great importance in adequately exhibiting the expected features of SMMC. The utilization of thermal spray and laser-based techniques in SMMC fabrication can lead to the formation of undesirable compounds between the reinforcement and matrix material and the deterioration of composite properties. Friction stir processing (FSP) is an economical, efficient, and environmentally friendly solid-state manufacturing method. In the technique, the embedded reinforcement particles in the grooves/holes machined on the surface of matrix material are stirred into the structure with a rotating and traversing tool. In this study, cerium dioxide and eggshell-reinforced aluminum hybrid surface composites were fabricated via two passes of FSP. The reinforcement particles used in composite manufacturing were mixed in a ratio of 1:1 by mass. The obtained hybrid powder was stirred into the matrix material (Al1050-H14) in two different volume ratios (9% and 13.5%). The cross-sections of the manufactured surface composites were investigated through stereo, optical, and scanning electron microscopes, and the mechanical properties of the distinct zones formed at the cross-section were measured using a Vickers microhardness tester. Tribology tests were also performed to determine the wear behavior of the surface composites. According to the findings, an increase of ~44% in the hardness and a reduction of over 21% in the wear rate of the surface composites was observed in comparison with the base material.

**Keywords:** Friction stir processing (FSP), aluminum matrix surface composite, microstructure, wear resistance

**SYSTEMATIC TRAINING FOR IMPROVISATION IN TURKISH MUSIC  
CONSERVATORIES: A PROPOSAL**

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**ABSTRACT**

Improvisation is a cornerstone of Turkish classical music, historically manifesting in forms such as taksim (instrumental improvisation) and gazel (vocal improvisation). However, its systematic instruction in conservatories remains underdeveloped. This paper proposes a comprehensive training program to reintegrate and emphasize improvisation in Turkish music education. The proposed curriculum combines theoretical and practical components to foster creativity and technical proficiency. The theoretical framework includes in-depth studies of makams (modes) and usuls (rhythmic cycles), equipping students with a solid understanding of the structural foundations essential for improvisation. Students will analyze historical and contemporary examples of improvisation, gaining insights into the evolution and stylistic nuances of Turkish music. Practical training will incorporate guided improvisation sessions, where students practice creating spontaneous musical expressions within specific makams and usuls. Peer collaboration and ensemble performances will encourage real-time musical dialogue and interaction, mirroring traditional master-apprentice learning methods. Special emphasis will be placed on developing listening skills and responsiveness, essential for both solo and ensemble improvisation. The curriculum also integrates cross-cultural perspectives by examining improvisational techniques from other musical traditions, such as Iranian and Indian classical music as well as jazz and African music practices. This comparative approach will broaden students' improvisational vocabulary and inspire innovative cross-genre explorations. By systematically training students in improvisation, Turkish music conservatories can enhance creative thinking, emotional expression, and cultural awareness. Such training will not only preserve the rich improvisational heritage of Turkish music but also prepare students for dynamic and versatile musical careers.

**Keywords:** Improvisation, Turkish Classical Music, Conservatory Training, Makam, Usul

**SEÇİLMİŞ AB ÜLKELERİ VE TÜRKİYE'DE TARIMSAL DESTEK VE KREDİLERİN GSYH İLİŞKİSİ ÜZERİNE LİTERATÜR İNCELEMESİ**  
**A LITERATURE REVIEW ON THE RELATIONSHIP BETWEEN AGRICULTURAL SUPPORT AND CREDITS AND GDP IN SELECTED EU COUNTRIES AND TURKEY**

**Habip TAK**

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**ÖZET**

Tarım, insanların gıda ve diğer ihtiyaçlarını karşılamak için bitkileri ve hayvanları yetiştirme sürecini ifade etmektedir. Tarım, aynı zamanda insanlık tarihi boyunca büyük bir rol oynamış ve medeniyetlerin gelişmesinde kritik bir faktör olmuştur. İnsanlık için önemli bir husus olan tarımsal faaliyetlerin sürdürülebilir olması için desteklenmesi gerekmektedir. Tarımsal desteklerin ve tarım kredilerinin tarımsal üretim üzerindeki etkisini anlamak, tarım ekonomisinin sürdürülebilirliği ve etkinliği açısından kritik bir önem taşımaktadır. Bu destekler ve krediler genellikle tarım sektörünün performansını artırmak, çiftçilerin yaşam standartlarını yükseltmek ve kırsal kalkınmayı desteklemek amacıyla uygulanır. Ancak, bu politikaların istenen hedeflere ulaşip ulaşmadığını değerlendirmek, etkili ve verimli politika geliştirilmesi açısından önemlidir. Bu bildirinin amacı, Seçilmiş bazı AB ülkeleri ve Türkiye'de tarımsal destek ve kredilerin GSYH üzerine etkilerini literatür taraması ile incelemektir. Literatürde tarım kredileri ve tarımsal desteğin büyüme ve GSYH gibi makro göstergelerle ilişkilendirmesi konusunda ulusal ve uluslararası birçok araştırma yapılmış ve bu araştırmalar neticesinde çeşitli sonuçlar elde edilmiştir. Yapılan araştırmaların büyük çoğunluğunda tarımsal desteklerin gelişmiş ülkelerin tarım sektörü payını olumlu etkilediğini, gelişmekte olan ülkelerde ise olumsuz etkilediğini göstermektedir. Tarımın desteklenmesi, sadece tarımsal üretimi değil, aynı zamanda kırsal ekonomiyi, toplumsal refahı ve çevresel sürdürülebilirliği de kapsamlı bir şekilde etkilemektedir. Bu nedenle, tarımsal desteklerin etkili bir şekilde tasarlanması ve uygulanması, geniş bir toplumsal ve ekonomik fayda sağlayabilir.

**Anahtar Kelimeler:** Tarım, GSYH, Tarımsal Destekler

**ABSTRACT**

Agriculture refers to the process of raising crops and animals to meet the food and other needs of humans. Agriculture has also played a major role throughout human history and has been a critical factor in the development of civilizations. Agricultural activities, which are important for humanity, need to be supported in order to be sustainable. Understanding the impact of agricultural subsidies and agricultural loans on agricultural production is critical to the sustainability and efficiency of the agricultural economy. These subsidies and loans are usually implemented to improve the performance of the agricultural sector, raise the living standards of farmers and support rural development. However, evaluating whether these policies are achieving the desired objectives is important for effective and efficient policy development. The aim of this paper is to examine the effects of agricultural subsidies and



loans on GDP in some selected EU countries and Turkey through a literature review. In the literature, many national and international studies have been conducted on the relationship between agricultural credits and agricultural support with macro indicators such as growth and GDP and various results have been obtained as a result of these studies. The vast majority of studies show that agricultural subsidies have a positive impact on the share of the agricultural sector in developed countries and a negative impact in developing countries. Supporting agriculture comprehensively affects not only agricultural production, but also the rural economy, social welfare and environmental sustainability. Therefore, the effective design and implementation of agricultural subsidies can provide a wide range of social and economic benefits.

**Keywords:** Agriculture, GDP, Agricultural Subsidies

**KARA PARANIN AKLANMASI İLE MÜCADELEDE BANKALARIN ROLÜ VE  
YASAL YÜKÜMLÜLÜKLERİ  
THE ROLE AND LEGAL OBLIGATIONS OF BANKS IN FIGHTING MONEY  
LAUNDERING**

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**ÖZET**

Suç ve Suç örgütleri için en önemli güdülenme kaynağı şüphesiz paradır. Organize suçlar ve diğer yasa dışı faaliyetlerden elde edilen paraların yasal kaynaklardan geliyormuş gibi gösterilmesi ve bu paranın temizlenme süreci kara para aklama olarak ifade edilmektedir. Fakat bu tür faaliyetleri ile mücadele etmek, hem ulusal hem de uluslararası zeminde karmaşık bir gayret gerektirmektedir. Kara para aklama ile mücadelede uluslararası kamuoyunun hassasiyeti, ülkelerin finansal suçlarla mücadelede daha kapsamlı ve etkili politikalar geliştirmelerini teşvik etmektedir. Ülkeler, kara para aklama, terörün finansmanı ve diğer finansal suçlarla mücadele etmek amacıyla yasal çerçevelerini gözden geçirmekte ve güncellemektedir. Türkiye de bu çabaların bir parçası olarak, finansal suçlarla mücadele konusundaki yasal düzenlemelerini sıkılaştırmakta ve uygulamalarını iyileştirmektedir. Bankacılık mesleğinin temelini oluşturan güven, itibar ve istikrar ilkeleri, sektörde faaliyet gösteren bankaların, müşterilerle ve diğer paydaşlarla olan ilişkileri kritik öneme sahiptir olmaktadır. Bankacılık sektörünün belirlediği etik ilkeler, bankaların faaliyetlerini bu değerler doğrultusunda yürütmesini sağlamaktadır. Bu etik ilkeler doğrultusunda suç gelirlerinin aklanması ile mücadelede bankaların uyması gereken yasal sorumlulukları vardır. Bu bağlamda finansal kuruluşlar, müşteri kimlik tespiti, şüpheli işlemlerin bildirilmesi, uyum görevlisinin görevlendirilmesi ve banka personellerini kara paranın aklanması ile mücadele konusunda eğitmesi gerekmektedir. Finansal kuruluşlara getirilen bu yükümlülükler, bankacılık ve genel finansal sektördeki güvenliğin sağlanması amacıyla uygulanan düzenlemelerdir. Bu yükümlülüklerin uygulanmasının başlıca sebeplerinden finansal sistemin sağlıklı ve güvenilir bir şekilde işlemlerini sağlamaktır.

**Anahtar Kelimeler:** Kara para aklama, Kara Para, Suç Gelirleri

**ABSTRACT**

The most important source of motivation for crime and criminal organizations is undoubtedly money. The process of showing money obtained from organized crimes and other illegal activities as coming from legal sources and cleaning this money is referred to as money

laundering. However, combating such activities requires a complex effort both nationally and internationally. The sensitivity of the international public opinion in combating money laundering encourages countries to develop more comprehensive and effective policies in combating financial crimes. Countries are reviewing and updating their legal frameworks in order to combat money laundering, financing of terrorism and other financial crimes. As part of these efforts, Turkey is also tightening its legal regulations on combating financial crimes and improving their practices. The principles of trust, reputation and stability that form the basis of the banking profession, and the relationships of banks operating in the sector with customers and other stakeholders are of critical importance. The ethical principles determined by the banking sector ensure that banks conduct their activities in line with these values. In line with these ethical principles, banks have legal responsibilities to comply with in the fight against money laundering. In this context, financial institutions are required to identify customers, report suspicious transactions, assign compliance officers and train bank personnel in the fight against money laundering. These obligations imposed on financial institutions are regulations implemented to ensure security in banking and the general financial sector. The main reason for the implementation of these obligations is to ensure that the financial system operates healthily and reliably.

**Keywords:** Money laundering, Illicit Money, Crime Proceeds

## COMPARISON OF CRYPTOCURRENCIES AND SUSTAINABLE ENERGY AS INVESTMENT OPPORTUNITIES

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This research investigates the perception and the potential of cryptocurrencies against energy investments. For this purpose, keywords such as cryptocurrencies, Bitcoin, and Blockchain are defined. A survey has been conducted in four languages, Arabic, English, Spanish, and Turkish, to target different audiences of different cultures' views on crypto versus energy investments. This paper provides an overview of people's sentiments regarding crypto and energy investments while comparing and contrasting their potential and impacts. This study is unique and was done on a small group of people.

The Arabic-speaking group were mainly millennials, highly educated, yet their annual income was less than average. They acquire a low financial literacy rate as they are more savers than investors. They are more conservative with their money as they would avoid investing in either crypto or energy; however, when given the choice between both would rather invest in renewable energy over crypto. They also assess low knowledge of sustainability and cryptocurrencies and are a risk-averse sort of group with lower incomes and lower tendencies to take risks.

The English-speaking group shared some similar characteristics with the Arabic-speaking group; however, their yearly income was much higher, and a minority of them were financially literate, yet more than half of them had investments. They also possessed remarkable knowledge regarding crypto and energy. Investing in energy was their top choice over crypto. This group showed a neutral sentiment toward risk-taking.

The Spanish-speaking group was a mixture between millennials and Generation X, with a minority that is highly educated. Yet, their annual earnings were within the average and slightly above. They possess adequate knowledge of cryptocurrencies and sustainability as they are open to investing in crypto and energy. This group is more of a risk-taker compared to all other groups.

The Turkish-speaking group earned more than average income as they owned investments, yet the minority was financially literate. Compared to all groups, they possess the most knowledge on crypto, sustainability, and energy, as their top choice, similar to all groups, was energy over crypto. This group displayed a sentiment between neutral and risk-taker.

The participants who possess different backgrounds, languages, races, religions, education, income, ages, etc., had their similarities and differences. Nonetheless, the results could vary if this research was conducted on a larger scale. Cultural differences possess a huge impact on how individuals navigate life; therefore, this research could add substantial value to academia once expanded further.

**Keywords:** Cryptocurrencies, Bitcoin, Blockchain, Sustainability, Energy

## AN ANALYSIS OF MOROCCO'S GDP GROWTH: EXAMINING THE IMPACT OF TECHNOLOGICAL INTEGRATION ON ECONOMIC DEVELOPMENT

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### Abstract:

The rapid evolution of digital technologies is fundamentally reshaping society, driving economic and social progress, and redefining the world of work and organizational management. Recent strides in artificial intelligence and human-machine interfaces are presenting new challenges and necessitating the acquisition of fresh skills to ensure sustainability in the global marketplace.

This study analyzes the short- and long-term effects of Information and Communication Technologies imports (ICT), foreign direct investment (FDI), unemployment, and productivity on Gross Domestic Product (GDP) growth in Morocco from 2000 to 2022 using the Autoregressive Distributed Lag (ARDL) model. In the short term, GDP growth is positively influenced by productivity and ICT imports, while unemployment has a significant negative effect.

In the long run, FDI and ICT imports contribute significantly to GDP growth, while productivity and unemployment have no statistically significant effects. These results suggest policies encouraging FDI and ICT adoption can significantly improve economic growth. Although productivity and unemployment do not show significant long-term impact in this model, their indirect roles in economic dynamics merit further exploration.

The findings are essential for policymakers and investors, emphasizing the significance of integrating technology and foreign investment to foster sustainable economic growth in Morocco and other developing countries. Further research should investigate additional factors and interactions to gain a comprehensive understanding of the intricate determinants of GDP growth.

**Keywords:** GDP growth, ICT imports, Productivity, Unemployment, Foreign direct investment, ARDL model

**ECONOMIC IMPORTANCE OF TOBACCO MOSAIC VIRUS (TMV)  
A REVIEW**

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**Abstract**

Viruses are found where ever there is life and have probability existed since living cells first evolved. *Tobacco mosaic virus* (TMV) is a positive-sense single-stranded RNA virus species in the genus *Tobamovirus* that infects a wide range of plants, especially tobacco and other members of the family Solanaceae. Tobacco mosaic virus is characterized by intermingle patches of normal and light green, yellow or white areas of the leaves or fruits. The mosaic type symptoms may be described as mottling streak, ring pattern, line pattern, vein clearing, vein banding, chlorotic spotting e.t.c TMV are mechanically transmitted and usually have aphid vectors in nature are generally resistant to brief heat treatment and cannot be treat with chemical. TMV is one of the common causes of virus disease of plant in the world. The virus is known to infect more than 150 types of herbaceous, dicotyledonous plants including many vegetables, flowers and weeds. TMV can be control using plant resistant varieties, Hot water treatment at 52<sup>0</sup>c and use of disease free material. Proper application of potassium fertilizers as per requirement and use of cultivate resistant varieties is also importance in the control.

**Key words:** Virus, Tobacco, Plant, Disease.

**THE MOMENTS AND CENTRAL MOMENTS OF KANTOROVICH TYPE OF BERNSTEIN OPERATORS VIA  $(p, q)$ - CALCULUS**

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**ABSTRACT**

In recent years, the approximation of functions using Bernstein operators has become an increasingly popular area of research in numerical analysis. Among the various types of Bernstein operators, the Kantorovich-type Bernstein operators have received considerable attention due to their ability to provide good approximations of functions with certain smoothness properties.

In this paper, we introduce a new modification  $(p, q)$ -Kantorovich of Bernstein operators for  $0 < q < p < 1$  and parameter  $\alpha > 0$ , which preserves both the linearity and positivity properties of these new types of Kantorovich of Bernstein operators, defined as the following;

$$\tilde{\beta}_{n,l,\alpha}^{p,q}(f, x) = \sum_{k=0}^{n+l} \tilde{b}_{n,l,k}^{p,q}(x) \int_0^1 f\left(\frac{p^{n+l-k}([k]_{p,q} + q^k t^\alpha)}{[n+l+1]_{p,q}}\right) d_{p,q}t, \quad x \in [0,1], \tag{1}$$

where

$f \in C[0, l+1]$ ,  $l \in \mathbb{N}_0$ ,  $n \in \mathbb{N}$  and  $b_{n,l,k}^{p,q}(x)$  is the basic function which is given by:

$$\tilde{b}_{n,l,k}^{p,q}(x) = p^{\frac{k(k-1)-(n+l)(n+l-1)}{2}} \begin{bmatrix} n+l \\ k \end{bmatrix}_{p,q} (r_{n,l}^{p,q})^k (1-r_{n,l}^{p,q})_{p,q}^{n+l-k}, \quad r_{n,l}^{p,q}(x) = \frac{[n]_{p,q}}{[n+l]_{p,q}} x, \quad 0 \leq r_{n,l}^{p,q}(x) \leq 1.$$

Now we will deduce a recurrence formula for  $\tilde{\beta}_{n,l,\alpha}^{p,q}(t^s, x)$  which is in terms of the moments of modified Bernstein–Schurer operators and calculate the first three moments of the operators as we present. As well, we estimate the second-order and the fourth-order central moments of the operators  $\tilde{\beta}_{n,l,\alpha}^{p,q}(f, x)$ , which have a great deal of importance in getting the results in approximation theory. In the following are the main estimations of quantities of the central moments for  $f(t) = t^s$ ,  $s \in \{0, 1, 2\}$ .

$$\tilde{\beta}_{n,l,\alpha}^{p,q}(t-x, x) \leq \frac{p^{n+l}}{[\alpha+1]_{p,q} [n]_{p,q}} + \left\{ (1-q) \left( 1 - \frac{1}{[\alpha+1]_{p,q}} \right) - \frac{p^{n+l}}{[n]_{p,q}} \right\} r_{n,l}^{p,q}(x), \tag{2}$$

$$\tilde{\beta}_{n,l,\alpha}^{p,q}\left((t-x)^2, x\right) \leq \frac{A}{[n]_{p,q}} \{ \phi_{p,q}(\alpha) + \gamma_{n,l}^p(x) \}, \quad x \in [0,1] \tag{3}$$

$$\tilde{\beta}_{n,l,\alpha}^{p,q}\left((t-x)^4, x\right) \leq \frac{A_2}{[n]_{p,q}^2} \eta_{p,q}^\alpha(x), \quad x \in [0,1] \tag{4}$$

where  $\eta_{p,q}^\alpha(x) = \left\{ \frac{1}{[4\alpha+1]_{p,q}^4} + [k]_{p,q}^2 + \phi_{p,q}(x) \right\}$ .

**Keywords:**  $(p, q)$ -Calculus,  $(p, q)$ - Bernstein Operators, Momentes, Korovkin theorem.

**TÜRKİYE’DE BÖLGESEL ELEKTRİK TÜKETİMİNİN ENERJİ VERİMLİLİĞİ  
PERSPEKTİFİNDEN DEĞERLENDİRİLMESİ<sup>1</sup>**

THE EVALUATION OF REGIONAL ELECTRICITY CONSUMPTION IN TÜRKİYE  
FROM THE PERSPECTIVE OF ENERGY EFFICIENCY

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**ÖZET**

Ülkeler makro açıdan ekonomilerinin büyümesi ve kalkınması için çeşitli faaliyetlerde bulunmaktadır. Bu faaliyetler arasında fiskal ve parasal politikalar olduğu gibi çevresel sürdürülebilirlik politikaları, enerji politikaları ve bölgesel kalkınmaya dönük politikalar da vardır. Sürdürülebilirlik, enerji verimliliği ve kalkınma gibi önemli makro kavramların ortak paydalarından biri de birçok sektörde kullanılan “elektrik”tir. Dolayısıyla bu çalışmanın öznesi elektrik tüketimiye amacı ise Türkiye’nin 81 ilinin sektörel elektrik tüketimlerini enerji verimliliği perspektifinden değerlendirmektir. Buna ilişkin olarak çalışmada illerin elektrik tüketimlerinin teknik etkinlik skorlarının belirlenmesi ve coğrafi olarak kümelenmelerin saptanması amaçlanmaktadır. İktisadi faaliyetlerin önemli girdisi olan elektrik, bölgesel farklılıkların olduğu Türkiye’de bölgesel kalkınma sürecinin başat bir faktörüdür. Bu bağlamda çalışmanın önemi, analiz bulgularından yola çıkarak ve çıkarımlarda bulunarak “bölgesel farklılıkları” illerin enerji verimlilikleri açısından değerlendirmek ve belirginleştirmektir ve böylece gerekli tedbirlerin alınmasına olanak sağlamaktır. Bu çalışmada 81 ilin KBGSYH ve kişi başına düşen sektörel elektrik tüketim değerlerinin ele alındığı ve 2007-2021 dönemini kapsayan panel veri setinden faydalanılarak panel stokastik frontier analiz (SFA) yapılmıştır. SFA ile illerin ortalama teknik etkinlik skorları hesaplanmış olup illerin enerji verimliliği performanslarına dönük bilgiler sunulmuştur ve kıyaslanmıştır. Sonuç olarak, çalışmanın bulgularına göre Türkiye’de KBGSYH’nin bağımlı değişken ve sektörel elektrik tüketimlerinin bağımsız değişken olduğu durumda illerin teknik etkinlik skorları elde edilmiştir. Diğer şehirlere görece daha yüksek skoru olan illerin (Ankara, İstanbul, Kocaeli vb.) çoğunlukla ülkenin batısında kümelenmişken; görece daha düşük skoru olan illerin (Ağrı, Van, Şanlıurfa vb.) ise çoğunlukla ülkenin doğusunda kümelenildiği görülmektedir.

**Anahtar kelimeler:** Elektrik tüketimi, Panel stokastik frontier analizi, Enerji verimliliği, Bölgesel kalkınma, Türkiye

<sup>1</sup> Bu makale, henüz üniversiteye sunulmamış olan ve Doç. Dr. Hayri ABAR danışmanlığındaki “Türkiye’de Bölgelere Göre Elektrik Tüketiminin İktisadi Analizi: Bölgesel Kalkınma ve Enerji Verimliliği Perspektifinden Bir Değerlendirme” başlıklı doktora tezinden üretilmiştir.



## ABSTRACT

Countries engage in various activities for the growth and development of their economies from a macro perspective. These activities include fiscal and monetary policies as well as environmental sustainability policies, energy policies and policies for regional development. One of the common denominators of important macro concepts such as sustainability, energy efficiency and development is “electricity”, which is used in many sectors. Therefore, while the subject of this study is electricity consumption, it aims to evaluate the sectoral electricity consumption of 81 provinces of Türkiye from an energy efficiency perspective. In this respect, the study aims to determine the technical efficiency scores of provinces’ electricity consumption and identify geographical clusters. Electricity, an important input of economic activities, is a major factor in the regional development process in Türkiye where regional differences exist. In this context, the importance of the study is to evaluate and clarify the “regional differences” in terms of the energy efficiency of provinces by basing on the findings of the analysis and making inferences, thus enabling the necessary measures to be taken. In this study, a panel stochastic frontier analysis (SFA) is conducted by utilizing the panel data set covering the period 2007-2021, which includes the GDP per capita and the values of sectoral electricity consumption per capita of 81 provinces. With SFA, the average technical efficiency scores of the provinces are calculated and information on the energy efficiency performance of the provinces is presented and compared. As a result, according to the findings of the study, the technical efficiency scores of the provinces in Türkiye are obtained under the condition where GDP per capita is the dependent variable and the values of sectoral electricity consumption per capita are the independent variable. The provinces with relatively higher scores (Ankara, Istanbul, Kocaeli, etc.) are mostly clustered in the west of the country, while the provinces with relatively lower scores (Ağrı, Van, Şanlıurfa, etc.) are mostly clustered in the east of the country.

**Keywords:** Electricity consumption, Panel stochastic frontier analysis, Energy efficiency, Regional development, Türkiye

**TRANSCRIPTIONAL DOWNREGULATION OF *PvPCO1*: EFFECTS ON ROOT AND ROOT HAIR GROWTH IN *PHASEOLUS VULGARIS***

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**Abstract**

The *Plant cysteine dioxygenase (PCO1)* gene encodes the enzyme Cysteine dioxygenase, a non-heme iron enzyme that catalyzes the conversion of L-cysteine to cysteine sulphinic acid (cysteine sulphate). This reaction initiates the metabolism of cysteine synthesis. *PCO1* is part of a group of oxygenases with diverse roles, including the regulation of cysteine metabolism, promotion of ferroptosis and apoptosis, and tumor suppression. The function of this gene in root and root hair growth in leguminous plants such as *Phaseolus vulgaris* remains unclear. In this study, we identified the homologue of *Arabidopsis thaliana PCO1* in the *P. vulgaris* genome and confirmed its homology through gene structure and conserved domain analysis. Additionally, we transcriptionally downregulated *PvPCO1* using the RNAi approach in the *P. vulgaris* hairy root system. The *P. vulgaris* hairy roots expressing the *PvPCO1*-RNAi vector showed no variation in primary root length; however, there was a significant decrease in lateral root density. The most notable observation of *PvPCO1* downregulation was the severe deformation of root hairs in the root elongation and mature zones. The root hairs of *PvPCO1*-RNAi roots were found to be affected in their polar growth. Further analysis should reveal the underlying cause of such a root hair phenotype. However, this root hair phenotype is significant as root hairs are the entry points for the symbiont Rhizobium. We express our gratitude to the DGAPA PAPIIT-UNAM for partially funding this research through grant no. IN217724 to K.N and IN208424 to M.K.A.

**Keywords:** *Phaseolus vulgaris*, root hair, PCO1, polarity

## TRB2 BÖLGESİNDE BİYOKÜTLE ENERJİSİNİN POTANSİYELİ VE TERSİNE LOJİSTİK FAALİYETİ ÜZERİNE BİR DEĞERLENDİRME

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### ÖZET

Biyokütle enerjisi, yenilenebilir enerji kaynaklarından biri olarak, son dönemde sunduğu ekonomik olanaklarla dikkat çekmektedir. Enerji, ekonomik faaliyetlerin temel girdisi olduğundan ve enerji talebi arttığından, enerji güvenliğini sağlamak için yerel kaynakların kullanılması gerekmektedir. Türkiye gibi enerji bağımlısı bir ülke, bu bağımlılığı azaltacak her türlü yolu denemelidir. Biyokütle enerjisi, yerel bir kaynak olarak bu ihtiyacı karşılayabilir. Yapılan araştırmalara göre, Türkiye'nin özellikle TRB2 (Hakkari, Muş, Bitlis, Van) Bölgesi'nde, hayvansal ve bitkisel atıklar gibi biyokütle enerjisinin hammaddesi olan kaynaklar yeterli miktarda bulunmaktadır. TRB2 Bölgesi'nde hayvansal ve bitkisel kaynaklardan elde edilebilecek toplam ekonomik biyokütle potansiyelinin 449 ve 250 TEP değerindedir. Söz konusu potansiyele karşın sadece potansiyelinin %55'inden ekonomik olarak faydalandığı elde edilmiştir. Bu potansiyel, evsel, ticari ve belediye atıkları ile ormansal atıklar da eklendiğinde daha da artabilir. İller bazında bakıldığında, Van'ın teorik % 44,3 ile ekonomik olarak da % 44,1 ile bölgede en iyi durumda olan il olduğu görülmektedir. Ancak, bölgenin sahip olduğu bu potansiyele rağmen, altyapı yetersizlikleri ve lojistik imkanların eksikliği, hammaddenin enerjiye dönüşümünü zorlaştırmakta ve bu da biyokütle varlıklarının geleneksel yöntemlerle tüketilmesine yol açmaktadır. Bu durum, ekonomik açıdan kaynak israfına sebep olmaktadır. Tersine lojistik imkanlarıyla, bu kaynakların ekonomik bir değere dönüştürülebileceği, üretim, istihdam ve yerel kalkınmaya katkı sağlayacağı, aynı zamanda mevcut çevresel kirliliği azaltacağı öngörülmektedir. Tersine lojistik, tüketicilerden kullanılmış ürünlerin toplanması, depolanması, yeniden işlenmesi ve tekrar dağıtılmasını kapsamaktadır. Biyokütle kaynaklarının, altyapı eksiklikleri nedeniyle tüketicilerin elinde atıl kaldığı, bu kaynakların tersine lojistik imkanlarıyla ekonomik bir varlığa dönüşeceği anlaşılmaktadır.

**Anahtar Kelimeler:** TRB2, Yerel Kalkınma, Tersine Lojistik

### ABSTRACT

Biomass energy, as one of the renewable energy sources, has recently gained attention due to the economic opportunities it offers. Since energy is a fundamental input for economic activities and energy demand is increasing, it is necessary to use local resources to ensure energy security. A country like Turkey, which is dependent on energy, should explore every possible way to reduce this dependency. Biomass energy, being a local resource, can help meet this need. According to research, Turkey, particularly in the TRB2 Region (Hakkari, Muş, Bitlis, Van), has sufficient resources such as animal and plant waste, which are raw materials for biomass energy. The total economic biomass potential from animal and plant sources in the TRB2 Region is estimated to be 449 and 250 TEP. However, it has been found that only 55% of this potential is being economically utilized. This potential could increase further if household, commercial, municipal, and forest waste are also included. When analyzed by provinces, it is

seen that Van has the highest theoretical potential at 44.3% and also ranks highest economically at 44.1%. Despite this potential, the region faces challenges such as inadequate infrastructure and logistics capabilities, which complicate the conversion of raw materials into energy, leading to the consumption of biomass resources through traditional methods. This situation results in economic resource waste. It is projected that these resources can be converted into economic assets through reverse logistics capabilities, contributing to production, employment, and local development, while also reducing existing environmental pollution. Reverse logistics involves the collection, storage, reprocessing, and redistribution of used products from consumers. Due to infrastructure deficiencies, biomass resources remain unused by consumers, but with reverse logistics capabilities, these resources can be transformed into economic assets.

**Key Words:** TRB2, Local Development, Reverse Logistics

**HEAVY METAL DISTRIBUTIONS IN SURFACE SEDIMENTS OF A COASTAL  
REGION (MERSIN BAY, TÜRKIYE)**

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**Abstract**

Heavy metal pollution in sediments is a worldwide problem. Heavy metals entered into the aquatic environments either naturally such as the erosion of rocks or as a result of anthropogenic pressures that are accumulated in the sediment. In this study, heavy metal concentrations were determined from the recently obtained sediment samples in January and May 2024. Furthermore, in order to determine heavy metal contamination level, the pollution indices Enrichment Factor (EF), Geoaccumulation Index (Igeo), Contamination Factor (CF) and Pollution Load Index (PLI) were calculated. Study findings indicated that the coastal sediments were highly polluted by Chromium (Cr) and Nickel (Ni) due to natural and anthropogenic pressures. In order to achieve good environmental status of our coastal regions, heavy metal concentrations in sediments and marine organisms should be monitored.

**Keywords:** Metal Pollution Status, Sediments, Mersin Bay, Mediterranean Sea

## EMOJI USE IN SCIENCE: FOSTERING COLLABORATION OR FUELING CONFUSION?

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### **Abstract**

Emoji usage in scientific writing is a developing trend that needs to be carefully considered. This study investigates the dualistic effects of emoji use in scientific settings, emphasizing both the possibility of increasing ambiguity and the chance of improving collaboration. Emojis have been proposed as tools that can close communication gaps, create a feeling of community, and enable more interesting and approachable debate among scientists from different backgrounds because of their capacity to express emotions and clarify complicated ideas. Nonetheless, there are worries over the risk of misunderstandings and the weakening of scientific rigour due to their informal character and the different ways that emojis are interpreted in different professions and fields. This study uses a mixed-methods approach to determine the prevalence of emoji use, spot trends in successful and unsuccessful applications, and offer recommendations for the strategic use of emojis. The results provide guidance for best practices that optimize emojis' collaborative advantages while minimizing their disadvantages, thereby promoting more efficient and inclusive scientific communication.

**Keywords:** Emojis, Science, Communication, Collaboration, Emotion

**OPTIMIZING HEAT PIPE OUTLET TEMPERATURE WITH HYBRID  
NANOFLUIDS THROUGH DEEP NEURAL NETWORK**

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**Abstract:**

Heat pipes are highly effective for transferring heat between different areas and are widely used in cooling applications, particularly in integrated electronic components. The output temperature of a heat pipe is closely linked to its thermal characteristics, necessitating a predictive model to forecast this temperature and understand the pipe's behavior. In this study, the outlet temperature of a heat pipe was predicted using Deep Neural Networks (DNN). The Keras framework was employed to optimize the neurons, optimizers, and learning rates of the deep neural network model. Python was used for the development, training, and testing of the models, with 80% training and 20% testing split. Initial training was conducted with default hyperparameters to ensure proper functionality. The results showed that the DNN model achieved a mean absolute error (MAE) of 0.42 and an R<sup>2</sup> score of 0.92. The findings indicate that the DNN model was highly correlates to the experimental values.

**Keywords:** Deep neural network, Heat pipe, Hybrid nanofluid, Outlet temperature, Prediction, Error.

**BIOLOGICAL AND MEDICINAL PROPERTIES OF COUROUPITA GUIANENSIS:**

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**Abstract:**

Couroupita guianensis is also called as “Cannonball tree” or “Sal tree” or “Ayauma tree”. The tree has spread widely all over the world. The tree has a enormous medicinal values since most of the parts like leaves, flower, fruit and stem are used as medicine to cure various diseases. In this present review, we try to give the existing information on phytochemical constituents, medicinal uses and other biological activities of Couroupita guianensis. This plant is very important in traditional veterinary medicine because it is used commercial since a very long time ago. During the last few decades it has been observed that there are numerous reports on anti inflammatory activity ,anti ulcer activity and anti cancer activity of this plant. It is enriched with a number of compounds such as oils, keto steroids, glycosides, couroupitine, indirubin, isatin and phenolic substances. The extract of various parts of couroupita guianensis showed significant pharmacological activities so it is necessary to perform further investigation to isolate such pharmacological active compounds which can be used in production of novel drugs for various diseases.

**Key words:** couroupita guianensis, veterinary medicine, Pharmacological activity, Phytochemical constituents.



**KIBRIS ADASINDA YÜRÜTÜLEN GRUPLAR ARASI TEMAS MÜDAHALELERİ  
ÜZERİNE BİR DERLEME  
A REVIEW OF INTERGROUP CONTACT INTERVENTIONS ON THE ISLAND OF  
CYPRUS**

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**ÖZET**

Bu derleme çalışması, Kıbrıs'ta Türk ve Rum toplumu arasındaki önyargıları azaltmak ve barışı teşvik etmek amacıyla kullanılan gruplar arası temas yöntemlerinin etkilerini incelemektedir. Spesifik olarak, bu çalışma doğrudan temas, genişletilmiş temas, hayali temas ve dolaylı temas gibi farklı temas yöntemlerinin uygulanış biçimlerini ve bu yöntemlerin sonuçlarını ele almaktadır. Bulgular, gruplar arası temasın empati, anlayış ve iş birliğini artırarak toplumsal gerilimleri azaltmada etkili olduğunu ortaya koymaktadır. Özellikle genç nesiller arasında yürütülen programların, gelecekte daha barışçıl bir toplum oluşturma potansiyeline sahip olduğu vurgulanmaktadır. Ancak, bu temas yöntemlerinin kalıcı barışa dönüşmesi için eğitim, medya, uluslararası destek, sivil toplum katılımı ve ekonomik iş birliği gibi alanlarda kapsamlı ve sürdürülebilir stratejilerin geliştirilmesi gerekmektedir. Bu bağlamda, çalışma Kıbrıs'ta barış inşası süreçlerinin sadece yerel düzeyde değil, aynı zamanda bölgesel ve uluslararası düzeyde de önemli etkileri olabileceğini göstermektedir. Eğitim sisteminde barış eğitiminin yaygınlaştırılması, medyada barış yanlısı içeriklerin teşvik edilmesi, uluslararası toplumun aktif desteği, sivil toplum kuruluşlarının katılımı ve iki toplum arasında ekonomik iş birliğinin artırılması gibi stratejiler, gruplar arası temas yöntemlerinin başarısını pekiştirebilecek unsurlar olarak öne çıkmaktadır. Bu çalışma, Kıbrıs'ta barışın inşası ve sürdürülmesi adına bütüncül bir yaklaşımın gerekliliğini vurgulayarak, gruplar arası temasın barışçıl bir toplum oluşturma yolunda ne denli etkili bir araç olabileceğini ortaya koymaktadır.

Anahtar Kelimeler: Gruplar arası temas, önyargı azaltma, Kıbrıs, doğrudan temas, genişletilmiş temas,

**ABSTRACT**

This review examines the effects of intergroup contact methods used to reduce prejudices and promote peace between the Greek and Turkish communities in Cyprus. Specifically, this study examines the implementation and outcomes of different contact methods, such as direct contact, extended contact, imagined contact and indirect contact. The findings reveal that intergroup contact is effective in reducing social tensions by increasing empathy, understanding and

cooperation. In particular, it is emphasized that programs conducted among younger generations have the potential to create a more peaceful society in the future. However, for these methods of contact to lead to lasting peace, comprehensive and sustainable strategies need to be developed in areas such as education, media, international support, civil society engagement and economic cooperation. In this context, the study shows that peacebuilding processes in Cyprus can have significant impacts not only at the local level, but also at the regional and international level. Strategies such as the dissemination of peace education in the education system, the promotion of pro-peace content in the media, the active support of the international community, the involvement of civil society organizations, and increased economic cooperation between the two communities stand out as elements that can reinforce the success of intergroup contact methods. By emphasizing the necessity of a holistic approach to building and sustaining peace in Cyprus, this study demonstrates how intergroup contact can be an effective tool for building a peaceful society.

Keywords: Intergroup contact, prejudice reduction, Cyprus, direct contact, extended contact

**APPLICATION OF THE DOE METHOD TO OPTIMIZE A RADIAL IMPULSE  
TURBINE FOR WAVE ENERGY CONVERSION**

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**ABSTRACT**

This research focuses on enhancing the performance of a self-rectifying radial impulse turbine, a critical component in wave energy conversion. The turbine's unique design incorporates circular-profile blades, and optimization of its efficiency is pursued through the Design of Experiments (DOE) methodology. The primary objective is to maximize efficiency during the inhalation and exhalation phases of its operational cycle. Employing a meticulous data-driven approach, a 3D viscous flow modeling technique utilizing the ANSYS Fluent code is employed to comprehensively analyze the turbine's performance, considering alterations in its geometry. Within the optimization process, ten distinct geometric parameters are scrutinized, with a focus on achieving precision through a 95% confidence level to identify parameters genuinely influencing efficiency. Only four of these parameters significantly impact the turbine's efficiency, with the rotor's geometry, particularly the blade angle, emerging as a key determinant of overall performance. Additionally, the study explores the influence of the rotor blade stagger angle, revealing that maintaining a stagger angle of 4 degrees is optimal for sustaining high efficiency in both operational modes, exceeding 50% efficiency. In comparison with a turbine featuring elliptical profiles, the study demonstrates a substantial 20% improvement in efficiency for the current turbine. These findings underscore the significance of the design modifications explored, offering promising prospects for enhancing the efficiency of wave energy conversion systems.

**Keywords:** DOE method; Wave Energy Conversion; Turbine Efficiency; Geometric Parameters; Optimization.

**ENHANCING EFFICIENCY OF PEROVSKITE SOLAR CELLS FROM SURFACE PASSIVATION OF Cr<sup>3+</sup> DOPED CuGaO<sub>2</sub> AS AN INORGANIC HOLE TRANSPORT MATERIAL (HTM)**

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Perovskite Solar Cells (PSCs) are rapidly becoming a viable solution for efficient energy harvesting devices. Their high cost and the absence of ecologically stable organic hole transporting materials (HTMs) present the most significant barriers to their commercialization. Before fully deploying inorganic materials as HTM for PSCs, one efficient way to increase the device's reliability and performance is to modify devices using inorganic oxidants that have the capacity to operate as inorganic hole carriers. Consequently, CuGaO<sub>2</sub> is promising HTM for effective and reliable PSCs. Our research was suggest that efficient device layout along with appropriate inorganic HTM doping may be an efficient strategy for producing stable PSCs. Here a variety of solid solution of CuGaO<sub>2</sub> and CuCrO<sub>2</sub> were create by hydrothermal process in order to get the ideal composition that result in reliable size control and high hole conductivity that employed for surface passivation at the perovskite contact. The composition range of CuGaO<sub>2</sub> doped with Cr<sup>+3</sup> was CuGa<sub>1-x</sub>Cr<sub>x</sub>O<sub>2</sub> (0 ≤ x ≤ 1, CuGaO<sub>2</sub>). XRD patterns were obtained for the particles of various compositions, these (006), (012), (104) and (024) having 2θ values 33.23°, 36.48°, 43.43°, and 50.43° peaks were identified without the appearance of any impurity peaks. The samples XRD peaks are intense indicating the produce nanocrystals are crystalline. The optical properties of nanoparticles were studied using UV-visible spectroscopy that showing the bandgap of CuGaO<sub>2</sub> was decrease from 3.32 eV to 3.05 eV by adding different concentration of Cr<sup>3+</sup> atoms and having maximum absorption of 0.97 at 282.6 nm. The chemical properties of nanoparticles were studied by using Fourier transform infrared spectroscopy that indicates the presence of metal oxide groups of bending and stretching vibrations. J-V curves of perovskite solar cell devices were applied, the altered system achieve a PCE of 16.9%, when the concentration of Cr<sup>3+</sup> was added in CuGaO<sub>2</sub> is 30%. This research opened up a fresh path for the logical design of extremely stable and effective PSCs.

**KEY WORDS:** Perovskite solar cell, Cr<sup>3+</sup> doped CuGaO<sub>2</sub>, Inorganic Hole Transport Material, Power Conversion Efficiency

## LIQUID SLOSHING IN FUEL TANKS UNDER PERIODIC LOADS WITH DAMPING

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### Abstract

**Objective.** This research focuses on analysing the stability of fluid movement within tanks subjected to coupled external periodic loads, incorporating the effects of damping. An efficient computational method has been developed, utilizing the method of given modes and the one-dimensional boundary element method. Upon solving the spectral problem and determining the natural frequencies and modes of liquid oscillations in a rigid tank, a system of differential equations is derived to describe the free surface's movement over time. These equations are obtained using the dynamic condition on the free surface. The stability of liquid movement under vertical harmonic loads is examined using the Ince-Strutt diagram for each fundamental frequency.

**Relevance.** New conditions of using equipment and introduction of new materials have significantly altered the stress-strain states and vibration characteristics of elements in modern structures. This necessitates enhanced research into the strength and dynamic characteristics of equipment operating under increased force and temperature conditions, especially when interacting with various aggregates. The issue of liquid sloshing in tanks first emerged in the 1960s with the advent of space vehicle flights. Poor design choices led to significant liquid fluctuations in fuel tanks, resulting in stability loss, deviations from calculated trajectories, and even complete destruction of launch vehicles. Designing powerful new launch vehicles demands innovative tank designs, which can now take on quite exotic forms [1]. Consequently, interest in studying the motion stability of reservoirs and fuel tanks has persisted for several decades [2]-[4].

**Conclusion.** A method has been developed to determine the time-varying level of the free surface of a liquid in rigid shells of rotation. The spectral problem of identifying the frequencies and modes of liquid oscillations in a truncated conical tank is addressed by reducing it to a system of one-dimensional integral equations. Using the Ains-Strett diagram, zones of instability in fluid movement under harmonic vertical loads have been identified. The influence

of Rayleigh damping on the growth of the free surface level has been clarified. Future work will focus on studying the oscillations of elastic shells of rotation containing liquid, using various composite materials [7].

**Keywords:** free surface, liquid sloshing in tanks, singular integral equations, boundary element method, damping, Ince-Strutt diagram

## THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS

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**Background** A growing body of evidence highlights that intestinal dysbiosis is associated with the development of psoriasis. The gut–skin axis is the novel concept of the interaction between skin diseases and microbiome through inflammatory mediators, metabolites and the intestinal barrier. The gut microbiome affects skin homeostasis through its influence on the signaling pathways that coordinate epidermal differentiation.

The objective of this study was to synthesize current data on the Deniplant natural modulator of the gut microbiome in patients with psoriasis.

**Materials and methods** All studies confirmed the association of psoriasis and gut microbiota dysbiosis. We describe the recent advances regarding the interplay between gut microbiota and the skin. Thus, the microbiome can be considered an effective therapeutical target for treating this disorder.

**Results** This presentation provides a detailed and comprehensive systematic study regarding gut microbiome in patients with psoriasis. These results are supported by clinical observations based on a case serie showing improvement in psoriatic skin lesions after Deniplant natural modulator. It is still not clear whether psoriasis is an effect or a cause of the observed disbalance between beneficial and pathogenic microbes. In this context, the study provides very interesting results, showing significantly greater changes in the gut microbiome of patients with psoriasis treated Deniplant natural modulator

**Conclusion** There is a significant association between alterations in gut microbial composition and psoriasis. Intestinal dysbiosis is a state of imbalanced gut microbiome that eventually has a negative impact on skin function and integrity. Deniplant natural modulator is a potential therapeutic strategy in patients with psoriasis

**Keywords:** dysbiosis, microbiome, psoriasis, gut-skin axis, gut barrier, Deniplant nutraceuticals

## CIRCULAR ECONOMY MODELS IN E-COMMERCE: CASE STUDIES AND ANALYSIS

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### **Abstract**

A revolutionary approach to sustainability, the move toward a circular economy emphasizes the need to increase resource efficiency, reduce waste, and prolong product lifecycles. This research investigates how circular economy ideas may be integrated into the e-commerce industry, providing a thorough examination of different business strategies and their effects. Using a qualitative approach, the study examines case studies of top e-commerce businesses that have effectively used the concepts of the circular economy. The goal of the study is to provide a thorough knowledge of these models' ability to promote sustainable growth in the digital marketplace by identifying the tactics, results, and difficulties related to them. Six well-known e-commerce companies—Patagonia, IKEA, ThredUP, Loop, Nike, and The RealReal—that are well-known for their circular economy activities are the subject of a thorough analysis as part of the qualitative methodology. Nonetheless, the study points out a number of difficulties, such as supply chain complexity, regulatory limitations, technology hurdles, and differing customer acceptability levels. The results highlight how crucial it is for stakeholders to work together, innovate continuously, and have supporting legislation in place in order to overcome these obstacles and optimize the advantages of circular economy activities. Conclusively, this research offers significant perspectives on the pragmatic implementation of circular economy models in electronic commerce, underscoring their capacity to cultivate a more robust and sustainable digital economy. Through the documentation of successful case studies and the analysis of their effects, the research adds to the growing body of knowledge on sustainability and provides practical advice for e-commerce businesses looking to incorporate circular ideas into their business practices.

**Key words:** Circular economy, E-commerce, Sustainability, Product lifecycle, Waste reduction, Resource efficiency.



## İKLİM DEĞİŞİKLİĞİNİN HALK SAĞLIĞI ÜZERİNDEKİ ETKİLERİ

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İnsanların sağlığını birçok yönden etkileyen iklim değişikliği, karşılaştırılabilir zaman dilimlerinde gözlenen doğal iklim değişikliğine ek olarak, doğrudan veya dolaylı biçimde küresel atmosferin bileşimini bozan insan faaliyetleri sonucunda iklimde oluşan değişiklik olarak tanımlanır. İnsanların sağlığı için temel bir tehdit oluşturan iklim değişikliği, fiziksel çevreyi ve sosyal ve ekonomik koşullar ve sağlık sistemlerinin işleyişi de dahil olmak üzere hem doğal hem de insan sistemlerinin tüm yönlerini etkilemektedir. Bununla beraber iklim değişikliği ile daha fazla insan sıcaklık, sel, kuraklık, fırtına ve orman yangını gibi aşırı hava koşullarına maruz kalabilir. Bu etkiler yediğimiz yiyecekleri, içtiğimiz suyu, soluduğumuz havayı etkileyerek sağlığımızı tehdit eder.

Bir kişinin iklim değişikliği etkilerine karşı hassasiyeti maruziyet, hassasiyet ve uyum kapasitesi olarak adlandırılan üç temel faktöre bağlıdır. İnsanlar iklim değişikliği tehlikelerine uyum sağlayabilir, bunlardan faydalanabilir veya bunlara yanıt verebilir. Dolayısı ile iklim değişiminin neden olduğu olumsuz etkiler ve bu etkilerden korunmada hemşireler kritik öneme sahiptir. Hemşireler, toplumların iklim değişikliğinin etkilerine ve bununla ilişkili risklere uyum sağlamasına yardımcı olabilirler. Daha iyi yaşam tarzlarının benimsenmesini, sağlık tesislerinde iklim verimliliği stratejilerini ve toplumlarda iklim hazırlığını etkilemek için hastaları ve aileleri sağlık sistemlerine entegre etmede önemli bir rol oynarlar. Halk sağlığı hemşiresi hizmet verdiği bireye ya da topluma yönelik veri toplarken sağlığın belirleyicilerini göz önüne almalı ve bu verileri toplumun sağlığını, koruma ve geliştirme uygulamalarında kullanılmalıdır. Bunun için çevre sağlığı ile ilgili sorunlarda en maliyet etkili yöntem korunma yaklaşımıdır. Bu koruma yaklaşımı çevresel acil olaylara ve afetlere hazırlanırken de kullanılmaktadır.

Sonuç olarak; İklim değişikliğiyle mücadelede ve bu değişikliklerin halk sağlığı üzerindeki etkilerini azaltmada kritik öneme sahip halk sağlığı hemşireleri, toplumu iklim değişikliklerinin etkilerine karşı bilinçlendirmeli, ulusal ve uluslararası düzeyde kapsamlı politikaların oluşturulmasına ve uygulanmasına rehberlik etmelidir.

Anahtar kelimeler: Halk sağlığı, hemşirelik, iklim değişikliği

## EFFECTS OF CLIMATE CHANGE ON PUBLIC HEALTH

Climate change, which affects human health in many ways, is defined as the change in climate resulting from human activities that directly or indirectly disturb the composition of the global atmosphere, in addition to the natural climate changes observed over comparable time periods. Climate change, which poses a fundamental threat to human health, affects the physical environment and all aspects of both natural and human systems, including social and economic conditions and the functioning of health systems. However, as climate change progresses, more people may be exposed to extreme weather conditions such as heat, floods, droughts, storms and wildfires. These impacts threaten our health as they affect the food we eat, the water we drink and the air we breathe.

A person's vulnerability to the effects of climate change impacts depends on three key factors: Exposure, sensitivity and adaptive capacity. People can adapt to, benefit from or respond to the hazards of climate change hazards.

Therefore, nurses are crucial in mitigating and protecting against the negative effects of climate change. Nurses can help societies adapt to the impacts of climate change and the associated risks. They play a key role in engaging patients and families in health systems to influence the adoption of better lifestyles, climate efficiency strategies in health facilities and climate preparedness in communities. The public health nurse should consider the determinants of health when collecting data for the individual or community they serve and use this data in practice to protect and improve community health. For this reason, the most cost-effective approach to environmental health problems is the prevention approach. This protective approach is also used in preparing for environmental emergencies and disasters.

In conclusion; Public health nurses, who are of critical importance in combating climate change and reducing the effects of these changes on public health, should raise public awareness of the effects of climate change and guide the creation and implementation of comprehensive policies at national and international levels.

Key words: Public health, Nursing, Climate Change

## MUVAZAAININ İLERİ SÜRÜLMESİNİN HAKKIN KÖTÜYE KULLANIMI TEŞKİL ETMESİ

THE ASSERTION OF COLLUSION CONSTITUTES ABUSE OF RIGHT

**Meltem ERDİL**

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### ÖZET

Sözleşme, tarafların iradelerini karşılıklı ve birbirine uygun olarak açıklamalarıyla kurulan hukuki bir işlemdir. Tarafların üzerine düşen edimleri yerine getirmeleri ahde vefa kapsamında sözleşmenin temel ilkelerinden biridir. Bazen sözleşmenin tarafları, çeşitli amaçlarla aralarında anlaşarak üçüncü kişilere karşı geçerli gibi görünen fakat kendi içlerinde geçersizliğini bildikleri durumlar yaratabilirler. Böyle durumlarda muvazaa kavramı gündeme gelir. Muvazaa, iki tarafın karşılıklı anlaşarak meydana getirdiği uygunsuzluk halidir. Muvazaalı işlemlerin sayısı oldukça fazla olduğundan bu kavramın ne olduğu ve ileri sürülemeyeceği durumların bilinmesi önem arz eder. Hukuk düzeni üçüncü kişilerin aldatılmasını desteklemediği için taraflarca yapılan muvazaalı işlemler üçüncü kişilere karşı ileri sürülemez. Türk Hukukunda muvazaalı işlemin geçersizliğinin üçüncü kişilere karşı ileri sürülmesini engelleyen açık bir kanun hükmü bulunmamaktadır. Ancak genel çerçevede niteliğindeki dürüstlük kuralı muvazaa iddiasının ileri sürülmesinde dikkate alınmalıdır. Dürüstlük kuralı ve hakkın kötüye kullanılması kavramları birbirleri ile yakın ilişki içerisinde bulunur. Zira bir hakkın kötüye kullanılması demek o hakkın açıkça dürüstlük kuralına aykırı olması, üçüncü kişilerin bundan zarar görmesi ya da zarar görme tehlikesi ile karşılaşmış olması anlamına gelir. Bu çalışmada muvazaanın ileri sürülmesinin hakkın kötüye kullanımı teşkil ettiği durumlar ele alınmıştır. Özellikle güncel Yargıtay kararları doğrultusunda muvazaanın tarafları ile üçüncü kişiler açısından konuya bakış açısının nasıl olduğu incelenmiştir. Yargıtay, aradan uzunca bir süre geçmiş olsa da zaman aşımı işlemeyeceğini ve üçüncü kişilerin her zaman muvazaa iddiasına dayanabileceğini kabul etmektedir. Ancak Yargıtay görüşünün aksine, dürüstlük kuralı çerçevesinde konuya yaklaşıldığında muvazaa iddiasının ileri sürülmesinin hakkın kötüye kullanımı olup olmadığının her olay açısından araştırılması gerektiği ve bu konuda bazı ölçütlerin getirilmesinin zaruri olduğu sonucuna ulaşılmıştır.

**Anahtar Kelimeler:** Dürüstlük Kuralı, Hakkın Kötüye Kullanımı, Muvazaa, Yargıtay Kararları

### ABSTRACT

A contract is a legal transaction established by the mutual and appropriate declaration of the parties' wills. The fulfilment of the obligations of the parties is one of the basic principles of the contract within the scope of loyalty to the covenant. Sometimes the parties to the contract may agree among themselves for various purposes and create situations that appear to be valid against third parties but which they know to be invalid internally. In such cases, the concept of collusion comes to the fore. Collusion is a state of incompatibility created by two parties by mutual agreement. Since the number of collusive transactions is quite high, it is important to know what this concept is and the situations in which it cannot be asserted. Since the legal order does not support the deception of third parties, collusive transactions made by the parties cannot be asserted against third parties. In Turkish Law, there is no explicit legal provision preventing

the assertion of the invalidity of a collusive transaction against third parties. However, the rule of good faith, which is a general framework, should be taken into consideration in asserting the claim of collusion. The concepts of good faith and abuse of right are closely related to each other. The abuse of a right means that the right is clearly contrary to the rule of good faith, and that third parties have suffered or are in danger of suffering damage. In this study, the cases where the assertion of collusion constitutes an abuse of right are discussed. In particular, in line with the recent decisions of the Court of Cassation, the perspective of the parties to the collusion and third parties is analysed. The Court of Cassation accepts that even if a long period of time has elapsed, the statute of limitations does not run and third parties can always rely on the claim of collusion. However, contrary to the opinion of the Court of Cassation, when the issue is approached within the framework of the rule of honesty, it is concluded that whether the assertion of collusion is an abuse of right or not should be investigated in each case and it is necessary to introduce some criteria in this regard.

**Keywords:** Rule of Honesty, Abuse of Right, Collusion, Court of Cassation Decisions

**SOLVENT POLARITY EFFECTS ON PHENOLIC FINGERPRINT AND BIOLOGICAL ACTIVITIES, USING THREE DIFFERENT EXTRACTIONS FORMULATION FOR EXAMINING OF *MENTHA AQUATICA* LEAF EXTRACTS**

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**Abstract**

The main purpose of our research is the evaluation of the efficacy of solvent polarity on phenolic composition, as well as the antibacterial, and antioxidant activities of extract of Moroccan *Mentha aquatica* L., leaves. To attempt these objectives, the total amount of phenolic and flavonoid content was determined using the Folin-Ciocalteu and aluminum trichloride processes as well as the DPPH, and RP tests were used to evaluate the antioxidant capabilities. In addition, by employing *in vitro* analysis through the microdilution method, the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of the extracts were assessed against multidrug-resistant bacteria. Furthermore, the results indicated that the total phenolic content was higher in hydroethanolic extract ( $62.19 \pm 1.19$  mg GAE/g DW) in contrast to the acetonic and aqueous extracts ( $22.22 \pm 0.64$ , and  $22.44 \pm 0.57$  mg GAE/g DW) respectively. Similarly, the aqueous ethanol extract contained the greatest flavonoid concentration, with values of  $29.15 \pm 0.09$  mg QE/g DW when compared with the other extracts. The steam extract poses excellent antioxidant power with an IC<sub>50</sub> of  $0.06 \pm 0.00$  mg/mL for the DPPH test, and lower RP with EC<sub>50</sub> of  $80 \pm 0.00$  µg/ml when compared with acetonic and aqueous extract ( $370 \pm 0.00$  and  $460 \pm 0.01$  µg/mL) respectively. The antibacterial capacity is ranged between  $0.78 \pm 0.05$  mg/mL and  $12.60 \pm 0.00$  mg/L.

## HEMOSYNC: REVOLUTIONIZING BLOOD BANK OPERATIONS

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### **ABSTRACT**

HemoSync aims to bridge the gap between hospitals, blood banks, and donors through a comprehensive digital platform. It employs a coin-based reward system to incentivize blood donation, coupled with demand prediction algorithms to optimize resource utilization and minimize wastage. Key features include user registration for donors, hospitals, and blood banks, with a homepage displaying real-time blood needs or excess. Leveraging geospatial data and advanced matching algorithms, the system efficiently identifies potential donors, expediting the procurement process and bolstering response times during critical situations. Conversely, in scenarios where blood wastage is detected, the system swiftly intervenes, orchestrating the redistribution of surplus blood to nearby hospitals or blood banks where demand is anticipated. For hospitals requiring blood, the system prompts them to input specific requirements, triggering a search for nearby donors. Conversely, in cases of blood wastage, the system identifies potential recipients through predictive analytics, directing surplus blood to where it's needed. Donors can track their contributions through earned coins, redeemable for vouchers or coupons via contracted partnerships within the app.

**Keywords:** Hospitals, Blood Banks, Donors, Digital platform, Coin-based reward system, Demand prediction algorithm.

## ADVANCING CORROSION PROTECTION: NANOCOMPOSITE COATINGS OF NATURAL RUBBER AND GRAPHENE NANOMATERIALS

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**Introduction:** Corrosion, which gradually deteriorates metallic structures, leads to significant economic losses. They are intended to preserve a substrate by putting a barrier between the metal and the outside environment, especially in chloride-rich areas. Nanocomposite coatings show great promise in enhancing corrosion resistance. Graphene, renowned for its chemical stability and mechanical properties, is extensively used in corrosion protection coatings. This study investigates the enhancement of barrier performance in epoxidized natural rubber (ENR) coatings by incorporating graphene-based nanoparticles into acrylic-based organic coatings.

**Methodology:** Graphene nanoparticles will be incorporated into the prepared hybrid coating (epoxidized natural rubber and acrylic) at varying loading ratios. The coating will be applied to mild steel panels and allowed to dry for one week before characterization. The resulting composite will be characterized using a range of techniques, including Fourier Transform Infrared Spectroscopy (FTIR), Contact Angle (CA) measurements, Field Emission Scanning Electron Microscopy (FESEM), Coating Thickness (CHT) analysis, Differential Scanning Calorimetry (DSC), and Electrochemical Impedance Spectroscopy (EIS).

**Practical Application:** The practical application of this study in the coating field is the development of advanced protective coatings for metallic structures, enhancing corrosion resistance through the incorporation of graphene nanoparticles into a hybrid of epoxidized natural rubber and acrylic. This innovation can significantly benefit industries such as oil and gas, marine, automotive, aerospace, and construction by extending the lifespan of pipelines, storage tanks, marine vessels, aircraft, and structural components.

**Originality:** The originality of this study lies in its innovative integration of graphene nanoparticles into a hybrid coating of epoxidized natural rubber (ENR) and acrylic to enhance corrosion resistance. This novel material combination leverages the unique properties of each component, with the study further distinguishing itself by examining the effects of varying graphene nanoparticle loading ratios.

**THE POETIC CONSTRUCTION OF WOMANHOOD IN NICHITA STĂNESCU'S  
POETRY VOLUME, "A VISION OF FEELINGS" (1964)**

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**ABSTRACT:**

Nichita Stănescu was a prominent figure in Romanian neo-modernism, a movement that brought about a lyrical revival of the literary tradition. In his creation, Stănescu made use of linguistic experimentation, abstract concepts and reinvented clichés in order to evoke powerful emotions. His poetry is characterized by a unique expression which advocates the reexperiencing of the world through the filter of love.

The volume "A vision of Feelings" (1964) celebrates the mysteries of teenage infatuation in a diaphanous, translucent universe. In this book, the discovery of the world is mediated by intense romantic emotions that trigger a state of happiness and bliss. Love is painted as a sentiment of total commitment, as a transformative force, capable of changing the poet's perception of the world and of reorganizing the universe into a space full of possibilities.

The present article intends to examine the depiction of the woman in the poems of this volume, by showing that the feminine figure appears both as a real being and as a dream, as a complementary presence in the poet's life, and also as a part of his soul. For Nichita Stănescu, his beloved represents a miracle of his existence.

**Keywords:** beloved, woman, love, poems, Nichita Stănescu



**THE SIGNIFICANCE, APPLICATION AND IMPACT OF INTERNET OF THINGS  
(IoT) ON INNOVATIVE TEACHING AND LEARNING: A SURVEY ON  
EDUCATIONAL DEVELOPMENT**

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**Abstract**

The evoking Internet of Things (IoT) technology is dynamically revolutionizing pedagogical methods in the education system. Today, the Internet of Things (IoT) is popularly described as the scenarios where internet connectivity and computing capability is extended to a variety of everyday items including objects, devices and sensors in the human society. Sundmaeker & Guillemin (2010) sees the Internet of Things (IoT) as virtual representations of identifiable objects in an internet-like structure. The Internet of Things (IoT) is growingly having impact on communication, science, business, government and most especially on education. Internet of Things (IoT) essentially allows educators and learners to keep track of key resources and enhance accessibility to information in teaching and learning environment. This paper is a quantitative survey on the Internet of Things (IoT). The paper investigates the significance, application and impact of the Internet of Things (IoT) in education sector. The paper outlines the key benefits and challenges of Internet of Things (IoT) in education. In conclusion, the paper affirmed that the incorporation and use of the Internet of Things (IoT) is aimed at removing traditional barriers in teaching and learning, and creating robust learning environment by using smart devices that will enable educators as well as students to connect with others around the world in other to exchange knowledge.

**Keyword:** Internet of Things, Teaching and Learning, Educational Development.

**AQUACULTURE OF THE GILTHEAD SEABREAM (SPARUS AURATA) IN ALGERIA.**

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**Abstract**

The gilthead sea bream is a protandrous hermaphrodite, exhibiting a unique reproductive pattern. In its first two years, it functions as a male, and upon reaching a length of over 30 cm, it undergoes a sex change, becoming female. During the male phase, the gonad is bisexual, featuring functional testicular areas with asynchronous spermatogenesis and non-functional ovarian areas. Ovarian development is also asynchronous, and females engage in batch spawning, capable of laying 20,000-80,000 eggs per day over a period of up to 3 months. Oocyte maturation coincides with a high HSI. Conversely, spawning leads to a decrease in the HSI. The size at first sexual maturity (L<sub>m55</sub>) is 18 cm for males and 19 cm for females (The gonadosomatic index (GSI) and hepatosomatic index (HSI) in both females and males serve as indicators of a single reproduction period).

This spawning period typically extends from December to January in the Mediterranean, reproduction occurs between October and December. The eggs are spherical and pelagic, with a diameter slightly less than 1 mm and a single large oil droplet. The planktonic larval stage lasts about 50 days at temperatures of 17-18°C.

**Keywords:** Gilthead seabream, GSI, HSI, Hermaphrodite, Reproduction.

**THE DRONE PARADOX: BALANCING STATE SOVEREIGNTY WITH  
HUMANITARIAN IMPERATIVES IN THE AGE OF AUTONOMOUS WARFARE**

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The advent of *autonomous drones* has created a conundrum due to the lack of a definite legal framework, offering unparalleled precision and efficiency in warfare while raising concerns about accountability, proportionality, and distinction in combat. The paper examines the risks posed by autonomous drones, encompassing uncontrolled escalation, lack of transparency, civilian casualties and risks of drone hijacking and hacking in instances of wars and armed rebellions. Additionally, the paper investigates the challenges of balancing *state sovereignty* with *humanitarian law* imperatives in autonomous warfare. The detrimental effect on state sovereignty is analyzed, as autonomous drones undermine the traditional notions of territorial integrity and national control if deployed without proper authorization. Furthermore, the paper scrutinizes the human rights implications, highlighting concerns about extrajudicial killings, surveillance, and treaty violations in the contemporary scenario.

This research suggests a nuanced approach towards the intersection of state sovereignty with humanitarian imperatives to be kept as a foundational principle, thereby emphasizing the need for a multidisciplinary understanding of technology, law and politics. Key international conventions such as the *Paris, Chicago and Geneva Conventions, ICAO standards and regulations, European Union's law* and the *UN Charter* reveal an inadequate legal framework pertaining to regulation of autonomous drones. The unregulated proliferation of autonomous drones and dynamic nature of *Artificial Intelligence* and *Machine Learning* poses significant risks, and this paper aims to inform a suggestive policy framework to promote a more responsible approach to autonomous warfare. The drone paradox demands attention, and this research contributes to the ongoing discussion by emphasizing on the *suspension of autonomous drone technology* adoption until a robust legal framework is developed. By exploring the intersection of technology, law and politics, this paper seeks to promote a more sustainable and responsible approach to the use of autonomous drones in modern warfare.

Keywords- Autonomous Drones, Sovereignty, Humanitarian Law, Artificial Intelligence

## YAŞLI AKUT MYELOİD LÖSEMİ TEDAVİSİNDE 5-AZASİTİDİN İLE VENOTOKLAX KOMBİNASYONU

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### ÖZET

Akut myeloid lösemi (AML) kromozomal translokasyonlar ve genetik mutasyonlaryoluyla klonal özellik kazanan myeloid progenitör hücrelerin kontrolsüz çoğalması ve farklılaşması ile meydana gelen kötü prognozlu çok heterojen bir hastalıktır. AML her yaşta görülebilmekle birlikte yaşla sıklığı artmakta olup ortanca tanı yaşı 68'dir. Bu hastalıkta yaş, mevcut komorbiditeler ve performans durumu standart tedavi açısından engeller oluşturmaktadır. İntensif kemoterapiye uygun olmayan bu hasta grubunda azasitidin ve desitabin gibi hipometilleyici ajanların (HMA) kullanıma girmesi ile toplam sağkalımda 7-10 ay düzeyinde sınırlı faydalarına rağmen en iyi tedavi seçeneği olarak değerlendirildiler. Ancak hedefyönelik geliştirilen selektif B-hücre lenfoma-2 (BCL-2) inhibitörü olan venetoklaksın AML'de kullanımı ile sonuçların hem remisyon hem de toplam sağkalım yönünden olumludur. Bu çalışmada kliniğimizde tedavi edilen 5 hasta eşliğinde literatüre katkıda bulunmayı amaçladık. Ocak 2019 ve Eylül 2023 tarihleri arasında akut myeloid lösemi tanısıyla intensif kemoterapiye uygun olarak değerlendirilmeyerek en az bir kür hipometilleyici ajan-venetoklaks kombinasyon tedavisi alan erişkin 5 hasta çalışmaya dahil edildi. Hastaların demografik, özgeçmiş, tanı, kemik iliği değerlendirme, genetik analiz, hastalık değerlendirme sonuçları ve izlem süreçleri ile ilgili veriler elde edildi. Hastaların % 80'i kadın, ortalama yaş ise 75,2 yıldı. 4 hasta De novo AML iken , bir hasta DS'den transforme AML idi. Hastaların % 60'ı venetoklaks azasitidin ile birlikte almıştır. Venetoklaks başlangıç dozu açısından hastaların % 80'ne basamak şeklinde artırım yapılarak 400 mg/28 gün şeklinde uygun doz ve gün sayısında venetoklaks verilebilmiştir. En sık görülen yan etkilerin febril nötropeni ile inatçı sitopeniler olduğu saptanmıştır. Tedavi yanıt değerlendirmeleri açısından 1. veya 2. kür sonunda kemik iliği değerlendirmesinde remisyon sağlanan hasta oranı % 40 iken hastaların % 60'da remisyon sağlanamamıştır. İzlem süresince bir hasta ciddi sepsis nedeniyle kaybedildi. Sonuç olarak, tek merkez hasta grubumuzda yaklaşık bir yıllık ortalama izlem süresinde inkomplet/komplet remisyon oranlarının ve ortanca sağkalım sürelerinin literatürdeki gerçek yaşam verileriyle benzerlik tespit ettik.

**Anahtar Kelimeler:** Yaşlı AML, Hipometilasyon, Venetoklax

## COMBINATION OF 5-AZACITIDINE AND VENOTOCLAX IN THE TREATMENT OF ELDERLY ACUTE MYELOID LEUKEMIA

### ABSTRACT

Acute myeloid leukemia (AML) is a very heterogeneous disease with a poor prognosis caused by the uncontrolled proliferation and differentiation of myeloid progenitor cells that acquire clonal properties through chromosomal translocations and genetic mutations. Although AML can be seen at any age, its frequency increases with age and the median age of diagnosis is 68. In this disease, age, existing comorbidities and performance status hinder standard treatment. In this group of patients who were not suitable for intensive chemotherapy, the introduction of hypomethylating agents (HMA) such as azacitidine and decitabine were considered the best treatment option, despite their limited benefits of 7-10 months in overall survival. But to the target With the use of venetoclax, a selective B-cell lymphoma-2 (BCL-2) inhibitor developed for AML, the results are positive in terms of both remission and overall survival. In this study, we aimed to contribute to the literature with 5 patients treated in our clinic. Between July 2023 and May 2024, 5 adult patients diagnosed with acute myeloid leukemia who were not considered suitable for intensive chemotherapy and received at least one course of hypomethylating agent-venetoclax combination therapy were included in the study. Data regarding the patients' demographics, history, diagnosis, bone marrow evaluation, genetic analysis, disease evaluation results and follow-up processes were obtained. 80% of the patients were women and the average age was 75.2 years. While 4 patients had De novo AML, one patient had AML transformed from MDS. 60% of patients received venetoclax together with azacitidine. In terms of the initial dose of venetoclax, venetoclax could be given to 80% of the patients in the appropriate dose and number of days, with a stepwise increase of 400 mg/28 days. The most common side effects were found to be febrile neutropenia and persistent cytopenias. Treatment response. In terms of evaluations, while the rate of patients who achieved remission in the bone marrow evaluation at the end of the 1st or 2nd cycle was 40%, remission was not achieved in 60% of the patients. One patient died due to severe sepsis during the follow-up period. As a result, in our single center patient group, the average follow-up period was approximately one year. We found that incomplete/complete remission rates and median survival times were similar to real-life data in the literature.

**Keywords:** Elderly AML, Hypomethylation, Venetoclax

**EMPOWERING WOMEN TO FIGHT AGAINST ABUSIVE TREATMENT AND HARASSMENT**

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**Abstract**

Empowering women to fight against abuse and harassment is an important and necessary process that affects various aspects of their lives. This research focuses on how women can be empowered socially, legally, and economically to reduce abuse and harassment against them.

This research work takes into account various aspects such as educational opportunities, provision of legal rights, and financial independence, which play an important role in women's empowerment. Apart from this, this research also sheds light on the awareness of social consciousness and the necessary steps to end violence against women.

The findings prove that women can be effectively empowered to fight against abuse and harassment by increasing women's education and financial independence, providing legal rights and improving social awareness. The study provides guidance for government, non-governmental organizations, and social institutions to work together to create a safe and empowered society where women can live independently and safely.

**Keywords:** Empowering women, Harassment, Women, Financial independence

## CULTURAL DIVERSITY AND LOCAL GOVERNANCE

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### **Abstract**

The relevance of cultural diversity and local governance and the importance of their interaction cannot be overlooked. This study analyzes various aspects of cultural diversity and their impact on local governance. In diverse societies like Pakistan, where there is a combination of different languages, traditions and religions, cultural diversity plays a prominent role. The importance of coordination and cooperation between people of different cultural backgrounds involved in the local governance system increases.

The study highlights the importance of cultural diversity, its benefits and challenges. Cultural diversity improves local governments' delivery of public services, while paving the way for better understanding and cooperation between different communities. On the other hand, cultural differences sometimes lead to prejudices and misunderstandings, which can hinder governance.

Furthermore, the study also describes various elements involved in local governance systems, such as transparency, participation, accountability, and involvement of local communities. Various policies and measures have been suggested to increase public participation and cultural sensitivity at the local level.

In conclusion, this study concludes that making cultural diversity an important part of local governance increases the chances of social cohesion and development. Embracing and valuing cultural diversity is key to strengthening and sustaining local governance.

**Keywords:** Different cultural, local communities, cultural diversity

## ADDRESSING RACISM IN WOMEN'S SERVICES

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### **Abstract**

One of the major issues facing women's services is racism, which is one of the continuing struggles for justice and equity. The purpose of this study framework is to raise awareness of racism, its effects on services for women, and even how these services deal with the problem of racism. In addition to being a meaningless criteria, racism in women's services is in opposition to social justice, equality, and women's wellbeing. The study looks at several forms of racial discrimination, such as when services are denied to marginalise ethnic groups, when women from such groups face greater barriers to employment, and unique issues that affect women from ethnic minorities. Aside from this, apartheid policies also lower women's well-being, which has detrimental implications on women's health, education, and economic potential, among other things.

This study also outlines potential responses to the issue, including racial sensitivity training for organisations, the start of awareness campaigns, and adherence to anti-racism legislation. A lot of emphasis is also placed on the necessity of encouraging the decrease of racial prejudice, which should involve local government, women's organisations, and government facilities. This research suggests that extensive and maybe more coordinated efforts are needed in the processes of eradicating racism in women's services. Thus, a liberal approach to racial equality could be helpful for advancing women's services and other areas of a fair society.

**Keywords:** Racism, Ethnic minority women, women's health



## BREAKING THE GLASS CEILING IN THE LEADERSHIP OF WOMEN

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### **Abstract**

Promoting and supporting women to break the glass ceiling is among the significant matters in the context of social and economic development of various global countries. This research focuses on how women can be at the forefront of fighting for gender equity while at the same time being able to compete keenly in different sectors.

This paper examines blockers of the women's leadership, including socio-cultural influences; barriers within organisational systems; and low self-esteem. Besides, this study sheds the light on the measures and actions require for women to gain positions of leadership in workplace like education, training, sponsoring, and policy change.

The findings presented indicate that the establishment of women's leadership skills and the shattering of the glass ceiling require a multifaceted and coordinated socio-educational and economic approach. The outcomes of the present study will be helpful for different institutions, authorities, and non-governmental organizations to create the foundation of a fair and equal society through the rising of women's leadership abilities.

Hence, it is demonstrated from this study that social awareness creation, education, and gender policies are relevant to shatter the glass ceiling in women's leadership. The admission of this research work warrants the fact that once empowered; women are capable of contributing significantly for their own benefits as well as for the growth of the society.

**Keywords:** Women, Social and economic development, Women's leadership

**THE GOVERNMENT IS MAKING EFFORTS TO DEVELOP THE DIGITAL ECONOMY INTO A DEVELOPED COUNTRY**

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**Abstract**

This research aims to analyze the Indonesian Government's efforts in developing the digital economy towards a developed country, with a focus on policies, economic impact, infrastructure, private collaboration, and achieving the Golden Indonesia Vision 2045. Qualitative and descriptive methods to analyze the efforts made by the Government in developing the digital economy towards a developed country. The results show that the Indonesian Government has taken concrete steps in developing the digital economy as a key strategy to advance the country towards developed country status. Through the implementation of progressive and innovative policies, such as the “White Paper on the National Strategy for Indonesia's Digital Economy Development 2030”, the Government has succeeded in driving significant growth in the digital economy. The positive impact of the digital economy on national economic growth can be seen from its increasing contribution to Indonesia's Gross Domestic Product (GDP). In addition, intensive efforts in digital infrastructure development have expanded internet and technology access to all corners of the country, creating a strong foundation for the advancement of the digital economy. Close collaboration with the private sector has also proven to be a key driver in accelerating the growth of the digital economy, with support provided to local startups, technology companies, and innovations across various sectors of the economy. This research highlights the importance of continuing and enhancing efforts to achieve Indonesia's Golden Vision 2045 as a globally competitive developed nation, while providing concrete recommendations for the optimization of future steps to ensure success in developing an inclusive and sustainable Indonesian digital economy.

**Keywords:** Indonesia Government, Economy, Digital

**KOQNITIV MODELLER VE QRAF TEORISI: YENI YAKLAŞIMLAR**  
**COGNITIVE MODELS AND GRAPH THEORY: NEW APPROACHES**

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**ÖZET**

Koqnitiv Modeller psikoloji, nöroloji, yapay zeka, robot teknolojileri, eğitim teknolojileri, tıp, sağlık, pazarlama, tüketici davranışı, askeri ve savunma sanayisinde kullanılmaktadır. Koqnitiv Modellerin birkaç matematiksel modeli mevcuttur. Bunlara örnek olarak Bayes Ağları, Markov Süreçleri, Dinamik Sistem Modelleri, Bulanık Mantık, Nöron Ağları vb. gösterebiliriz. Biz, matematiksel model olarak Qraf teorisinden yararlandık. Koqnitiv model ve Qraf teorisini birleştirerek bir uygulama oluşturduk.

Uygulama, kullanıcıların Qraf teorisinin yardımıyla bu sürece etki eden faktörlerin (yani qrafın düğümlerinin) yönetilmesini, bu faktörlerin listesini, faktörler arasındaki ilişki derecelerini matris şeklinde sunmasını ve Qraf teorisine çözülen çeşitli problemlerin hesaplanmasını sağlar.

Kullanıcı arayüzünün sadeliği açısından uygulamamız üç bölümden oluşmaktadır. Burada her form kendi işini yapar ve bir sonraki forma geçişi sağlar.

Birinci formda, bu sürece etki eden faktörlerin faktörler listesine eklenmesi, gerekirse listedeki faktörlerin düzenlenmesi ve silinmesi, ayrıca bu faktör listesinin text dosyasına yazılması ve gerekli text dosyasının okunması işleri yapılır. İkinci formda, bu faktörler arasındaki ilişki derecelerinin ilişki matrisine eklenmesi, bu ilişki matrisinin text dosyasına yazılması işleri yapılır. Son formda ise, önceki iki formdan alınan verilere dayanarak Qraf teorisine çözülen çeşitli problemler hesaplanır. Biz bu bölümde iki problemin çözümüne baktık. Bunlardan biri 'En Kısa Yol', diğeri ise 'Kritik Kesim' problemidir.

En kısa yolun bulunması için Dijkstra algoritmasından yararlandık. Kritik Kesim probleminin çözümünde ise Ford-Fulkerson algoritmasından yararlandık.

Oluşturduğumuz uygulama, qraf teorisine ve koqnitif modellerin entegrasyonunu pratik olarak gerçekleştirir. Kullanıcılar, etki eden faktörlerin yönetilmesinden başlayarak faktörler arasındaki ilişkilerin matris şeklinde sunulmasına kadar tüm aşamaları kolaylıkla takip edebilirler. Kullanıcı dostu arayüz, bu süreçleri adım adım yönetmeyi mümkün kılar ve bilgileri anlamada yardımcı olur.

**Anahtar Kelimeler:** Koqnitiv Modeller, Qraf Teorisi, En Kısa Yol, Kritik Kesim, Dijkstra Algoritması, Ford-Fulkerson Algoritması

**ABSTRACT**

Cognitive models are used in psychology, neurology, artificial intelligence, robotics, educational technologies, medicine, healthcare, marketing, consumer behavior, and the military and defense industries. There are several mathematical models of cognitive models. Examples include Bayesian Networks, Markov Processes, Dynamic System Models, Fuzzy

Logic, Neural Networks, etc. We used graph theory as a mathematical model. We combined cognitive models and graph theory to create an application.

The application allows users to manage the factors affecting this process (i.e., the nodes of the graph) using graph theory, present the list of these factors and the relationship degrees between the factors in matrix form, and calculate various problems solved with graph theory.

Our application, in terms of user interface simplicity, consists of three parts. Here, each form performs its function and ensures the transition to the next form.

In the first form, adding the factors affecting this process to the factors list, editing and deleting the factors in the list if necessary, and writing this factors list to a text file and reading the necessary text file are carried out. In the second form, adding the relationship degrees between these factors to the relationship matrix, and writing this relationship matrix to a text file are performed. In the last form, various problems solved with graph theory are calculated based on the data obtained from the previous two forms. We examined the solution of two problems in this section. One is the 'Shortest Path,' and the other is the 'Critical Cut' problem.

We used the Dijkstra algorithm to find the shortest path. For solving the Critical Cut problem, we used the Ford-Fulkerson algorithm.

The application we developed practically integrates graph theory and cognitive models. Users can easily follow all stages from managing the affecting factors to presenting the relationships between the factors in matrix form. The user-friendly interface makes it possible to manage these processes step by step and helps in understanding the data.

**Keywords:** Cognitive Models, Graph Theory, Shortest Path, Critical Cut, Dijkstra Algorithm, Ford-Fulkerson Algorithm

**POSTPARTUM DÖNEME YÖNELİK KÜLTÜREL İNANIŞ ve UYGULAMALAR  
DERLEME  
CULTURAL FOR THE POSTPARTUM PERIOD BELIEFS AND PRACTICES  
REVIEW**

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**ÖZET**

Bu bildirinin amacı postpartum dönemde anne ve bebeğe yönelik kültürel inanç ve uygulamaları ortaya koymaktır. Bunun için Türkiye’de yapılan güncel makaleler derlenmeye çalışılmıştır. Kültür, bir grup insan tarafından öğrenilen, paylaşılan, nesilden nesile aktarılan değerler, inançlar, tutumlar, örf ve adetler olarak tanımlanmaktadır. Toplumların sağlıkla ilgili inanç ve uygulamaları, içinde yaşadığı toplumun kültürünün bir parçasıdır. Doğum sonu dönemde görülen sağlık sorunlarının normal bir durum gibi algılanması, bu dönemde bakımın yetersizliği, kadının toplumdaki statüsü, aile büyüklerinin baskısı, ekonomik yetersizlikler, sağlık merkezlerine erişim zorlukları, dini inançlar, sağlık personeline güvenmeme, sağlık güvencesinin olmaması gibi nedenler toplumu sağlık sorunlarını çözmek için geleneksel uygulamalar yapmaya yöneltmektedir. Doğum sonu dönemde verilen sağlık hizmetlerinin yetersizliği kadınların bu dönemdeki sağlık problemlerini önlemek ya da çözmek için ailelerinden görmüş oldukları geleneksel uygulamalara yönelmelerine neden olmaktadır. Lohusanın yastığının altına bıçak, soğan, iğne, şiş, kuru soğana batırılmış iğne, ayna, ekmek, nazarlık, çuvaldız, şiş, tavuğun çatal kemiği, deniz midyesi kabuğu, çatal iğne vb cisimler koymak, yenidoğanı sarılıktan korumak ve tedavi etmek için sarı bez örtmek, sarı kurdele takmak anne sütü gelinceye kadar şekerli su vermek, bebeğin alınına çizilerek sarımsak koymak, kulak arkasını kesmek bebeği yumurta sarısı ile yıkamak, sarımsak ile üzümü beşiğine takmak, dua okumak, nazar boncuğu takmak, kurşun dökmek gibi uygulamalar postpartum dönemde yapılan geleneksel uygulamalardan bazılarıdır. Toplum tarafından yapılan geleneksel sağlık uygulamaları etki bakımından sağlığa zararlı, bazıları yararlı ve bazıları ise ne zararlı nede yararlıdır. Lohusa ve yenidoğan sağlığının korunması ve geliştirilmesinde sağlık hizmeti sunucularının önemli sorumlulukları vardır. Özellikle doğurganlıkla ilgili sorunların önlenmesinde gebelik, doğum ve doğum sonu dönemde ebeler/hemşireler tarafından verilen sağlık hizmeti önem arz etmektedir. Bütüncül yaklaşım lohusa ve yenidoğan sağlığını koruma ve geliştirmenin yanında sağlık hizmeti sunmada önceliklerin belirlenmesi ve hizmetin etkinliğinin artırılması bakımından da önem arz etmektedir. Hemşire/ebeler geleneksel uygulamaları daha iyi değerlendirme ve özelliklerini belirleme açısından daha çok belirleyici çalışmaların yapılması, toplum bazlı eğitimlerin verilmesi önerilebilir.

**Anahtar kelimeler:** Postpartum, Kültürel uygulamalar, Lohusa, Yenidoğan

## ABSTRACT

The purpose of this paper is to reveal cultural beliefs and practices regarding mother and baby in the postpartum period. For this purpose, an attempt has been made to compile current research articles conducted in Turkey. Culture is defined as the values, beliefs, attitudes, customs, and traditions that are learned, shared, and passed down from generation to generation by a group of people. Health-related beliefs and practices of societies are part of the culture of the society in which they live. Perceiving postpartum health issues as normal, inadequate care during this period, the woman's status in society, pressure from extended family members, economic constraints, difficulties in accessing health centers, religious beliefs, distrust of healthcare professionals, and lack of health insurance all lead society to resort to traditional practices to address health problems. The inadequacy of health services provided in the postpartum period causes women to turn to traditional practices they have received from their families in order to prevent or solve health problems during this period. Placing objects such as scissors, knives, onions, garlic, needles, pins, pins dipped in dry onion, mirrors, bread, amulets, corset pins, chicken wishbones, sea mussel shells, and forked needles under or by the side of the postpartum woman's pillow, covering the newborn with yellow cloth to protect and treat jaundice, tying yellow ribbons, giving sweetened water until mother's milk comes in, placing garlic on the baby's forehead after scratching it, cutting behind the ears, bathing the baby with egg yolk, attaching garlic and grapes to the cradle, reading prayers, attaching evil eye beads, and pouring lead are some of the traditional practices performed during the postpartum period. Traditional health practices performed by the society are harmful to health, some are beneficial, and some are neither harmful nor beneficial. Health care providers have important responsibilities in protecting and improving postpartum and newborn health. Health services provided by midwives/nurses during pregnancy, birth and postpartum period are especially important in preventing fertility-related problems. In addition to protecting and improving postpartum and newborn health, the holistic approach is also important in determining priorities in providing health services and increasing the effectiveness of the service. It may be suggested that nurses/midwives conduct more definitive studies and provide community-based training in order to better evaluate traditional practices and determine their characteristics.

**Key words:** Postpartum, Cultural practices, Maternity, Newborn

## COMPARATIVE STUDY OF THE POLYMER "Elan-tech® EC 1150/W1150" AND ITS APPLICATION IN ANATOMY

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In anatomical practice, it is often necessary to use various polymers to fill the lumen of blood vessels and create three-dimensional replicas of them for scientific research. Interest in such models in clinical practice is continuously increasing, and the demand for different materials that combine cost and quality is growing more and more. The aim of this study was to create a three-dimensional model (corrosion replica) of the arterial system of the fingers in a sheep. The study aimed to investigate the architecture of small-caliber vessels in the finger area and to assess the degree of filling. The replicas would be useful for visual examination of the arterial system of the fingers in sheep, as well as for demonstrating the small vessels of the hoof and their configuration using fluorescence. The prepared replicas can improve the understanding of anatomical features necessary for scientific research, as well as for training veterinary specialists, surgeons, and orthopedists.

**Aim and Objective:** To analyze the quality of the corrosion preparations filled with epoxy resin compared to those made with acrylate plastic, the degree of three-dimensional detail representation, and their advantages and disadvantages.

**Materials and Methods:** Limbs from 6 local breed sheep, aged 4 years with a live weight of 60-65 kg, slaughtered for meat consumption in a licensed slaughterhouse, were used. By filling the arteries with cold-polymerizing acrylate plastic "Duracryl Plus® U" and epoxy resin "Elan-tech® EC 1150/W1150", corrosion casts of the arterial system of the fingers were made. The three-dimensional replicas from the lumen of the blood vessels were processed using a standard anatomical corrosion technique in which organic tissues are removed by acid.

**Results:** The obtained preparations were distinguished by very well-expressed three-dimensional detail, good strength, and no artifacts. Upon closer examination with specialized equipment, the small vessels filled with epoxy resin provided a more complete microscopic picture and good natural fluorescence, unlike those filled with acrylate plastic. The acrylate replicas did not retain fine details but allowed for better macroscopic visualization of the main arteries.

**Conclusion:** The results provide a basis for recommending the technique of filling with this type of epoxy resin for the preparation of corrosion casts of blood vessels, which could be successfully used for scientific research. The preparations made with acrylate plastic could be successfully used for training specialists in the fields of veterinary anatomy, surgery, and orthopedics. The methodology can also be applied in the preparation of museum exhibits.

**Key words:** epoxy resin, acrylate resin, corrosion cast, anatomy, sheep

**THEORETICAL STUDY OF CHALCOGENIDE (CHG) GLASS OPTICAL SENSOR  
BASED ON RIDGE WAVEGUIDE FOR SENSING APPLICATIONS IN THE MID-  
INFRARED**

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**ABSTRACT**

The increasing concentration of carbon dioxide (CO<sub>2</sub>) in the atmosphere can have many negative effects on the environment, including climate change. However, to mitigate the effects of pollution on the environment and human health, we must first detect these polluting molecules. Detecting pollutant molecules is an ongoing challenge for the protection of our environment and our health. It enables the possible to identify sources of pollution, monitor pollution levels, and implement corrective measures to reduce emissions. Additionally, knowledge of the distribution and concentration of pollutants in the environment provides accurate information for scientific studies and health risk assessment, and is also useful for guiding environmental and regulatory policies. The aim of this work is to develop an integrated optical sensor for carbon dioxide detection. On-chip optical circuits, commonly known as “sensor-on-a-chip” or “lab-on-a-chip,” alleviate the spatial and temporal resolution limitations of laboratory techniques. We conducted a theoretical study of the detection of carbon dioxide (CO<sub>2</sub>) in the mid-IR using a chalcogenide (ChG) glass platform, based on a ridge waveguide. In this study, The Effective index Method (EIM) was applied to determine the optimal parameters of the optical sensor. We considered the evanescent field confinement factor,  $\Gamma$  %, as a key element to maximize the sensitivity of the sensor while minimizing detection limits. According to the obtained results, the sensor design demonstrated a significant improvement in sensitivity and achieved 10.73 detection limits as low as parts per million (ppm) for carbon dioxide (CO<sub>2</sub>). This sensor will contribute significantly to advanced environmental monitoring and climate change research, enabling a better control over pollution.

Keywords: Chalcogenide (ChG) glass, waveguide, mid-Infrared, carbon dioxide



**THE APPLICATION OF SOCIAL CAPITAL THEORY TO RESEARCH  
COOPETITION INVOLVING SMALL COMPANIES**

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**Abstract** | There is increasing interest in the academy for research that examines the phenomenon of coopetition, a term that describes companies simultaneously engaging in cooperation and competition. Despite the great interest in coopetition, there is still a dearth of research focused on small and medium size companies. At a theoretical level, the reasons that lead companies to engage in coopetition include arguments based on games theory, network theory and the resource-based view, while transaction cost economics has been used as argument for the risks of coopetition and to explain why some coopetition partnerships fail. This article argues that the study of coopetition involving small and medium size companies would benefit from alternative theoretical approaches, including a well-established theory in social studies, social capital theory. This theoretical framework has rarely been applied to study coopetition. The present article outlines the potential positive contribution of social capital theory to study coopetition involving small and medium size companies and provides a dual case study example of the application of social capital theory to study the coopetition phenomenon.

**Keywords:** Coopetition; Co-opetition; Social Capital, SMEs.

**PUBLIC SECTOR COCREATION WITH CITIZENS**

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**Abstract** | Co-creation has captured the attention of public managers and policymakers and yet the literature focusing in the public sector is still relatively dispersed. In this literature review we present a contextualized analysis of the potential reasons that lead public sectors organizations to co-create with citizens and identify potential barriers that may hamper the adoption of co-creation in public settings. The analysis undertaken allowed us to conclude that the topic is increasingly capturing the interest of researchers, although the current state of the literature is characterized by a reduced heterogeneity in research methods. Based on the articles analyzed, we classified co-creation benefits in the public sector as: innovation related, improved decision-making and symbolic related and we categorized the drivers for co-creation into three broad categories: external, relation-specific and internal. Finally, we identified potential barriers of co-creation, including structural barriers, organizational and behavioral barriers.

**Keywords:** public sector, co-creation, barriers, drivers, benefits

**EFFECTS OF RURAL ACCESS AND MOBILITY PROJECT (RAMP) ON WELL BEING OF CROP FARMERS IN KADUNA STATE, NIGERIA**

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**ABSTRACT**

The study was conducted to examine the effects of rural access and mobility project (RAMP) on food production and well-being of crop farmers in Kaduna State, Nigeria. Specifically, the study examined rural infrastructural projects executed by RAMP, wellbeing status of farmers and effects of RAMP on wellbeing status of farmers. Multi-stage sampling techniques were employed to select 303 respondents on which primary data were elicited from the respondent with the aid of a structured questionnaire complemented with interview schedule. Data collected were analyzed using descriptive statistics (such as mean, frequency distribution count and percentages) and inferential statistics (wellbeing indicators). The study revealed that 93.3% respondent agreed that RAMP executed earth-dressed roads. Also, 49.4% of respondent reported satisfaction with their wellbeing. More so, distance of RAMP ( $p<0.05$ ), reduce transportation ( $p<0.01$ ) and facility access ( $p<0.01$ ) were the major factors influencing wellbeing status of farmers. The study recommended that RAMP should continue expanding and maintaining earth-dressed roads to enhance rural infrastructure. Additionally, efforts should be made by Federal government to improve transportation facilities and access to essential services, as these factors significantly influence the well-being of farmers.

**Key words: Rural; Access; Mobility; and Well-being**

**AN ASSESSMENT OF PASSENGERS' PATRONAGE AND VIABILITY OF  
RAILWAY TRANSPORTATION SYSTEM IN NIGERIA**

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**Abstract**

Rail transport plays a significant role in the development and overall growth of any economy, it is often regarded as the wheels of economic activity, because of its crucial role in catalyzing economic growth and development. It opens up regions, hinterlands and rural areas by facilitating agricultural development as well as the growth of cottage and large scale industries. According to Adesanya (2010) when rail transport is appropriately incorporated with other modes, economic level of traffic can be merged to enable the railway provide efficient and effective services for high density flow of homogenous traffic carried over generally on long distance route, including high volumes of containerized freight or bulk cargo. The research assessed the viability of passengers' patronage on railway transportation system. Non-probability sampling techniques was adopted for the research, primary and secondary data were used, two sets of questionnaires were administered, to the Nigerian Railway Corporation (NRC) and the passengers. A total of 170 people were interviewed, made up of 150 passengers and 20 staff of NRC. Pearson product moment correlation coefficient was used to test the relationship between the passenger's patronage and viability of the railway transportation. Data collected were analysed and presented in tables, using average and percentage while the secondary data sources are from journals, textbooks, data from NRC. The major findings of the research gives that, amount generated daily on train is lesser than the expenses, amount generated are used for fuel consumption, paying cleaners, maintenance of railway track. The study concluded that increase in patronage and viability of railway transportation, is a function of the government. Government should provide necessary amenities that encourages comfortability for the passengers using railway, inclusion of public-private partnership in the development and operation of railway, orderliness in process of boarding the railway, using of modernized railway infrastructural facilities were all recommended.

**Keywords:** Assessment, Passenger's, patronage, viability, road transport Nigeria.

**HARABEDEN MODERNİTEYE:  
TARİHİ TAŞ EVLERİN VE TAŞ KONAKLARIN TURİSTİK ÜRÜNE OLAĞANÜSTÜ  
DÖNÜŞÜMÜ**  
FROM RUIN TO MODERNITY:  
EXTRAORDINARY TRANSFORMATION OF HISTORICAL STONE HOUSES AND  
STONE MANSIONS INTO TOURISTIC PRODUCTS

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**Özet**

Dünyanın birçok yerinde sosyal gelişmeye veya ekonomik büyümeye katkı sunabileceği halde âtil durumda olan eski yapılar vardır. Bu tarihi yapılar kullanılmadıkları için zamanla harabe haline gelmekte ve çoğu yıkılıp dökülmektedir. Bu durum turistik ürünler için de geçerlidir. Turistik ürünler, turistlerin yeme, içme ve konaklama gibi ihtiyaçlarını karşılamaktadır. Mardin’de bulunan ve tarihi yüzlerce hatta binlerce yıl öncesine uzanan bazı taş evler ve taş konaklar restore edilerek günümüze kazandırılmış ve turistlerin hizmetine sunulmuştur. Profesyonel bir şekilde restore edilerek hizmet veren bu turistik mekanlar yeni istihdam alanları yaratarak ekonomik büyümeye katkı sunmakta ve Mardin’i dünyaya tanıtmaktadır. Bu çalışma, Mardin’de bulunan tarihi taş evlerin ve taş konakların harabeden moderniteye olağanüstü dönüşümünü turistik ürün bağlamında inceleyerek yaratılan ekonomik katma değeri ortaya koymakta ve özel olarak tanıtmaktadır. 2010-2020 yılları arasında turizme açılmış taş ev taş konakların işletme sahiplerinin süreç ile ilgili bilgileri verilerin kaynağını oluşturmaktadır. Aynı süreçte Mardin’e gelen turist sayısındaki değişim ve Mardin turizmine katkıları da bu çerçevede açıklanmaktadır. Restore edilerek turizme kazandırılmış taş ev ve taş konakların Mardin turizmine ekonomik katkısı dikkate alındığında, halen harabe halinde ve âtil durumda olan diğer mekanların da restore edilerek turizme kazandırılmasının bölgede turizm ekonomisini güçlendireceği açıktır. Bu çalışmanın, Mardin’de yıllarca kullanılmayarak yok olmaya terk edilmiş taş evlerin ve taş konakların turistik ürün bağlamında harabeden moderniteye dönüşümünü kapsamlı olarak ele almakta ve aynı sürecin diğer âtil yerler içinde kullanılmasının yerel ekonomik büyümeye katkı sunacağını önermektedir.

**Anahtar Kelimeler:** Tarihi yapılar, Turistik ürün, Taş ev, harabe

**Abstract**

In many parts of the world, there are old buildings that remain idle even though they could contribute to social development or economic growth. Since these historical buildings are not used, they become ruins over time and most of them are demolished. This also applies to tourist products. Touristic products meet the needs of tourists such as eating, drinking and accommodation. Some stone houses and mansions in Mardin, dating back hundreds or even thousands of years, have been restored and brought to the present day and offered to tourists. These professionally restored tourist attractions contribute to economic growth by creating new employment areas and introduce Mardin to the world. This study examines the extraordinary transformation of historical stone houses and stone mansions in Mardin from ruin to modernity in the context of touristic products, revealing and specifically promoting the economic added value created. The process-related information of the business owners of stone houses and mansions opened to tourism between 2010 and 2020 constitutes the source of the data. The change in the number of tourists coming to Mardin in the same period and their contributions to Mardin tourism are also explained in this context. Considering the economic contribution of

restored stone houses and mansions to Mardin tourism, it is clear that restoring other places that are still in ruins and idle and bringing them into tourism will strengthen the tourism economy in the region. This study comprehensively addresses the transformation of stone houses and mansions in Mardin, which have been abandoned for years and left to perish, from ruin to modernity in the context of touristic products, and suggests that the use of the same process in other idle places will contribute to local economic growth.

**Keywords:** Historical buildings, touristic product, stone house, ruin

**NET INTEREST MARGIN DEVELOPMENTS RECENTLY IN TÜRKİYE AND THE FINANCIAL SECTOR PERFORMANCE EXPECTATIONS**

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**ABSTRACT**

This study aims to highlight the recent fiscal and monetary developments in Turkey, focusing on net interest rate limits in a context that reflects the expectations regarding the financial sector's performance in Turkey. The net interest rate developments in Turkey, especially the expectations related to the financial finance sector, are shaping together with some regulatory and monetary effects, as well as various economic and technological factors; these dynamics play an essential role in making strategic decisions and providing a competitive advantage for financial institutions. Turkey's recent interest rate changes have emerged with current impact values that directly affect both industries and economic growth. This fact is also an essential financial phenomenon affecting the financial sector's performance in the same period as a monetary phenomenon. Furthermore, this recent fiscal evaluations-alterations process also involves the volume of investment in Turkey, particularly the value of the Turkish currency. These fiscal and monetary approach dynamics are essential in reaching the target values for future financial sector performance and the approach to creating a significant investment margin regarding expectations regarding the support of export-oriented investments as the support of supported investments, especially with incentive policies, has also led to a discussion that has highlighted the potential for sectoral stagnation as a result of the rising interest rates observed in recent periods. These developments in the limits of net interest rates in Turkey have recently differentiated the possible effects of the financial performance values of the financial sector, especially the financial institutions and all institutional approaches, regarding credit service options, macroeconomic variables, and economic growth targets. Economic uncertainties, especially the COVID-19 pandemic and the subsequent changes in the global economic structures caused by economic uncertainties, mean that financial institutions are re-examining their credit-granting policies and re-forming their relations with the Central Bank in Turkey.

**Key Words:** Central Bank of the Republic of Turkey, Financial Sector, Incentive Policies, Interest Rates, Macroeconomic Variables.

**JEL Codes:** E02, E43, E44.

CHESS AS AN EDUCATIONAL SKILL IN COURTLY CULTURE IN MEDIEVAL  
CASTILE

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Participating in the Global Summer Program in Inclusive Development at Zhejiang University has broadened my understanding of social issues globally. This perspective is invaluable for comprehending the historical and cultural contexts of women's participation in combat, a topic that transcends geographical boundaries.

Intern, Digital Museum and Diaspora, Migration, GRFDT, New Delhi, India (April 2021-March 2022, Online). This experience gave me valuable insights into animals' cultural and historical significance in different societies. It has been instrumental in my current research on the Byzantines and their relationship with animals.

During my tenure as a Book Pecker Fellow at Peace X, India, I was honoured as the best fellow in the social science department and computer literacy. This experience significantly enhanced my research and analytical skills, which are essential for studying medieval women's perception and participation in combat.

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**Abstract:** In medieval Europe and the Islamic world, courtly culture was expressed through playing chess, riding and hunting, and appreciating music and literature. It was expected that a nobleman or noblewoman, especially a member of a royal family, would be skilled in all of these endeavours as they were considered essential elements of a courtly education. One of the most intricate examples of this blend of courtly arts, drawing from both Muslim and Christian traditions, can be found in thirteenth-century Castile at the multicultural court of Alfonso X (ruled 1252–84). The luxurious manuscript known as the *Libros de Ajedrez, dados y tablas* (Books of Chess, Dice, and Board Games), lavishly illustrated and produced at great expense, is a testament to the grandeur of courtly culture. More than any other of that period, this manuscript appears to have been tailored for the personal pleasure of its royal patron, Alfonso X, who was well-known for his love of art, science, literature, music, and chess. Its content and design were influenced by the king's passion for chess and were created for a circle of courtly companions. To fully appreciate the manuscript, one must be cultured and aristocratic, have leisure time, understand chess, and be familiar with Alfonso's court's lifestyle, individuals, and pursuits.

**Keywords:** Courtly Education, Medievalism, Chess, Religious Unity, Medieval Game, *Libros de Ajedrez, dados y Tablas* (Books of Chess, Dice, and Board Games), Alfonso's Commission.

**NREL FAZ VI RÜZGAR TÜRBİNİ PROTOTİP VE MODEL TÜRBİNİ NÜMERİK  
ARAŞTIRMASI**  
NREL PHASE VI WIND TURBINE PROTOTYPE AND MODEL TURBINE NUMERICAL  
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**ÖZET**

Bu bildirinin amacı, NREL Faz VI rüzgar türbininin prototip ve 1:10 ölçekli modelinin  $C_p$ - $\lambda$  grafiklerinin benzeşiminin gösterilmesidir. NREL Faz VI rüzgar türbininin prototipi tasarlanmıştır. Daha sonra gerekli ölçek faktörleri kullanılarak parametreler hesaplanmıştır ve 1:10 ölçekli model türbin oluşturulmuştur. Prototip ve 1:10 ölçekli model türbine hesaplamalı akışkanlar dinamiği programında (ICEM CFD) dört farklı sayıda mesh ataması gerçekleştirilmiştir ve böylece analizlerin meshten bağımsızlık şartı sağlanmıştır. Prototip ve model türbine sırasıyla 11,7 milyon ve 11,6 milyon mesh atımı uygulanmıştır. Mesh uygulaması işleminden sonra öncelikle prototip türbinin analizleri hesaplamalı akışkanlar dinamiği programında (Ansys Fluent) analiz edilmiş ve çıkan değerler NREL Faz VI rüzgar türbininin deneysel verileriyle karşılaştırılmıştır. Elde edilen moment ve  $C_p$  verilerinin deneysel verilerle son derece benzeştiği görülmüştür. Daha sonra model türbinin hesaplamalı akışkanlar dinamiği programında (Ansys Fluent) Reynolds ve Froude benzerliğine göre analizleri yapılmıştır. Yapılan analizlerin sonucunda prototip ve model türbinin Reynolds benzerliğine göre benzeştiği fakat Froude benzerliğine göre benzeşmediği sonucuna varılmıştır.

**Anahtar Kelimeler:** Rüzgar Türbini, NREL Faz 6, Prototip, Model,  $C_p$ .

**ABSTRACT**

Purpose of this declaration, showing the similarity of  $C_p$ - $\lambda$  graphs for the prototype and 1:10 scale model of the NREL Phase VI wind turbine. The prototype of the NREL Phase VI wind turbine was designed. Then, using the necessary scale factors, the parameters were calculated, and a 1:10 scale model turbine was created. For both the prototype and the model turbine, four different mesh assignments were performed in a computational fluid dynamics program (ICEM CFD) to ensure mesh independence for the analyses. A total of 11.7 million and 11.6 million mesh elements were applied to the prototype and the turbine, respectively. After the meshing process, the prototype turbine was first analyzed in a computational fluid dynamics program (Ansys Fluent), and the resulting values were compared with the experimental data of the NREL Phase VI wind turbine. It was observed that the obtained torque and  $C_p$  data closely matched the experimental data. Subsequently, the model turbine was analyzed in the computational fluid

dynamics program (Ansys Fluent) according to Reynolds and Froude similarities. The results of the analyses showed that the prototype and the model turbine matched according to Reynolds similarity but did not match according to Froude similarity.

**Keywords:** Wind Turbine, NREL Phase 6, Prototype, Model, Cp.

**ÇOKLU YETERSİZLİKTE ETKİLENMİŞ ÇOCUĞU OLAN EBEVEYNLER İLE  
TİPİK GELİŞEN ÇOCUĞU OLAN EBEVEYNLERİN OLUMLU GELECEK  
BEKLENTİSİ İLE YAŞAM DOYUM DÜZEYLERİ ARASINDAKİ İLİŞKİNİN  
İNCELENMESİ**

EXAMINATION OF THE RELATIONSHIP BETWEEN POSITIVE FUTURE  
EXPECTATION AND LIFE SATISFACTION OF PARENTS WITH A CHILD AFFECTED  
WITH MULTIPLE DISABILITY AND PARENTS WITH TYPICAL DEVELOPMENT  
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**ÖZET**

Bu çalışmada, çoklu yetersizliği olan anne babalar ile tipik gelişen çocuğu olan anne babaların olumlu gelecek beklentileri ile yaşam doyum düzeyleri arasındaki ilişkinin incelenmesi amaçlanmıştır. Araştırmada, tipik gelişen çocuklara sahip ebeveynler ile çoklu yetersizliğe sahip çocukları olan ebeveynlerin olumlu gelecek beklenti düzeyleri ve yaşam doyum düzeyleri arasındaki ilişkilerin tespit edilmesi amaçlı ilişkisel betimleme modeli kullanılmıştır. Araştırmanın verileri, araştırmacı tarafından hazırlanan demografik bilgi formu ile olumlu gelecek beklentisi ve yaşam doyum ölçekleri aracılığı ile toplanmıştır. Araştırma çerçevesinde 50 tipik gelişen ile 50 çoklu yetersizliğe sahip olmak üzere toplam 100 ebeveyn den veri toplanmıştır. Araştırma sonunda tipik gelişen çocuğu olan ebeveynler ile çoklu yetersizlikten etkilenmiş çocuğu olan katılımcıların olumlu gelecek beklentisi düzeylerinin yaş, cinsiyet, medeni durum, eğitim durumu, çalışma durumu, meslek, çalışma şekli, günlük çalışma süresi ve aylık gelir durumuna göre istatistiksel olarak anlamlı düzeyde farklılaşmadığı görülmektedir. Tipik gelişen çocuğu olan ebeveynlerin ve çoklu yetersizlikten etkilenmiş çocuğu olan ebeveynlerin yaşam doyum düzeylerinin yaş, cinsiyet, medeni durum, eğitim durumu, çalışma durumu, meslek, mesleki kıdem, çalışma şekli, günlük çalışma süresi ve aylık gelir durumuna göre istatistiksel olarak anlamlı düzeyde farklılaşmadığı görülmektedir. Tipik gelişen çocuğu olan katılımcıların olumlu gelecek beklenti düzeyleri ile yaşam doyum düzeyleri arasında pozitif yönde orta düzeyde anlamlı ilişkinin olduğu görülmektedir. Çoklu yetersizliğe sahip çocuğu olan katılımcıların olumlu gelecek beklenti düzeyleri ile yaşam doyum düzeyleri arasında pozitif yönde orta düzeyde anlamlı ilişkinin olduğu görülmektedir. Tipik gelişen ve çoklu yetersizliğe sahip çocuğu olan katılımcıların olumlu gelecek beklenti düzeyleri ile yaşam doyum düzeyleri arasında pozitif yönde orta düzeyde anlamlı ilişkinin olduğu görülmektedir.

**Anahtar Kelimeler:** Aile, Tipik Gelişen Birey, Çoklu Yetersizlikten Etkilenen Birey, Olumlu Gelecek Beklentisi, Yaşam Doyum Düzeyi.

## ABSTRACT

In this study, it was aimed to examine the relationship between positive future expectations and life satisfaction of parents with multiple disabilities and parents with typically developing children. In the study, the relational descriptive model was used to determine the relationships between the positive future expectation levels and life satisfaction levels of parents with typically developing children and parents with children with multiple disabilities. The data of the study were collected through the demographic information form prepared by the researcher and the positive future expectation and life satisfaction scales. Within the framework of the research, data were collected from a total of 100 parents, 50 of whom were typically developing and 50 of whom had multiple disabilities. At the end of the study, positive future expectation levels of parents with typical developing children and participants with children affected by multiple disabilities did not differ statistically significantly according to age, gender, marital status, education level, working status, occupation, working type, daily working time and monthly income is seen. It is seen that the life satisfaction levels of parents with typically developing children and those with children affected by multiple disabilities do not differ statistically according to age, gender, marital status, education status, employment status, occupation, professional seniority, working type, daily working time and monthly income. It is seen that there is a moderately significant positive correlation between the positive future expectation levels and life satisfaction levels of the participants with a typically developing child. It is seen that there is a moderately significant positive correlation between the levels of future expectation and life satisfaction levels. It is seen that there is a moderately significant positive correlation between the positive future expectation levels and life satisfaction levels of the participants who have typically developing children with multiple disabilities.

**Keywords:** Family, Typical Developing Individual, Individual with Multiple Disabilities, Positive Future Expectations, Life Satisfaction Level.

## MİKROPLASTİKLER VE SUCUL BÖCEKLER MICROPLASTICS AND AQUATIC INSECTS

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### ÖZET

Üretim maliyetlerinin düşük olması ve geniş kullanım alanları nedeniyle dünya üzerinde plastik üretimi ve kullanım alanları oldukça yaygındır. Mikroplastikler ise boyutları 1-5000 µm arasında değişim gösteren düzenli yada düzensiz şekle sahip sentetik katı plastik parçacıklardır. Mikroplastikler kökenlerine göre birincil ve ikincil mikroplastikler olmak üzere ikiye ayrılırlar. Birincil mikroplastikler çeşitli boyutlardaki mikro boncukları ifade eder. İkincil mikroplastikler ise radyasyon, UV ışınları, ısıya ya da mekanik bozulmaya maruz kalma nedeniyle daha büyük plastik parçalarından oluşur. Mikroplastikler atmosferden sucul alanlara hatta toprağın alt katmanlarına kadar yeryüzünün her noktasında gözlemlenebilmektedir. Sucul alanlarda böcekler, midyeler, algler, sucul kuşlar ve sucul memeliler basta olmak üzere tüm sucul organizmalar birincil mikroplastiklerden etkilenmektedir. Bu mikroplastik parçacıkları ya besin sanılıp tüketilmekte ya da solunum esnasında istemsizce yutulmaktadır. Sucul böceklerde özellikle beslenme türü, beslenme mekanizması, türlerin morfolojisi ve habitat tercihlerine göre çeşitli mikroplastikleri vücutlarına almaktadırlar. Mikroplastiklerin vücutlarından dışarı atılması ise taksonların boşaltım sistemlerine, alınan plastiğin boyutuna ve cinsine bağlı olarak değişim göstermektedir. Bu da bazı türlerin plastikleri vücutlarından atabilmesine bazılarının ise bağırsaklarında tıkanmalara sebep olabilmektedir. Tatlı sularda yayılış gösteren çeşitli böcek grupları buldukları habitatlarda meydana gelen değişimlerden direk olarak etkilendikleri için biyoindikator olarak değerlendirilmekte ve sularda bulunan kirletici unsurların takip edilmesinde kullanılmaktadır. Bu da küresel anlamda sucul habitatların varlığının sağlıklı bir şekilde sürdürülebilmesi ve takip edilebilmesi için sucul böceklerin önemini bir kez daha artırmakta ve doğal habitatların korunması gerçeğini hatırlatmaktadır. Sonuç olarak bu çalışmada, mikroplastiklerin sucul böcekler üzerindeki birikimleri incelenmiştir.

**Anahtar Kelimeler:** Mikroplastikler, Sucul böcekler, kirleticiler, kirlenme.

### ABSTRACT

The low production costs and the wide range of applications, the production and use of plastics is widespread worldwide. Microplastics are solid synthetic plastic particles with a regular or irregular shape and a size of between 1-5000 µm. Microplastics are divided into two groups according to their origin: primary and secondary microplastics. Primary microplastics are microspheres of different sizes. Secondary microplastics are formed from larger pieces of plastic that have been created by radiation, UV radiation, heat or mechanical decomposition. Microplastics can be observed everywhere on earth, from the atmosphere and water to the lower layers of the soil. In water bodies, all aquatic organisms, including insects, mussels, algae, water birds and aquatic mammals, are affected by primary microplastics. These microplastic particles are either ingested as food or accidentally swallowed during respiration. Aquatic insects in particular ingest different microplastic particles depending on

the type of diet, feeding mechanism, morphology of the species and habitat preference. The excretion of microplastics from their bodies varies depending on the taxa's excretory system, the size and the type of plastic ingested. This can result in some species being able to excrete plastics from their bodies, while other species can cause blockages in their intestines. Various groups of insects that disperse in freshwater are used as bioindicators and for monitoring pollutants in water, as they are directly affected by changes in their habitats. This shows once again how important aquatic insects are for the conservation and monitoring of aquatic habitats worldwide and reminds us of the need to protect natural habitats. In summary, this study investigated the accumulation of microplastics on aquatic insects.

**Keywords:** Microplastics, aquatic insects, pollutants, pollution.

## VERİ GAZETECİLİĞİ: TRT HABER'İN İNFOGRAFİK KULLANIMI ÜZERİNE BİR İNCELEME

DATA JOURNALISM: AN ANALYSIS ON TRT HABER'S USE OF INFOGRAPHICS

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### ÖZET

Gazetecilikte veri görselleştirme araçları kullanılarak çevrim içi içerikler aracılığıyla kamuoyuna bilgi aktarmak önemli bir yöntemdir. Bu bağlamda bilgi teknolojilerindeki gelişmeler, veri gazeteciliğinin iletişim dünyasındaki önemini giderek arttırmaktadır. Veri gazeteciliği, bir haberin hikayesine daha derin bir bakış açısı sağlayarak bilgiye dayalı haberlerin üretilmesini ve büyük miktarda verinin istatistiksel olarak incelenmesini içeren bir habercilik ve haber yazma pratiğidir. Veri gazeteciliğini kullanan medya profesyonelleri, haberleştirilen olayları derinlemesine inceleyerek okuyucu/izleyici kitlesine karmaşık gibi görünen metinleri daha anlaşılır bir şekilde sunmaktadırlar. Bu süreçte infografikler, bilginin etkili ve sade bir şekilde görsel yollarla hedef kitleye ulaştırılmasında önemli bir rol oynar. Bu açıdan bilginin görselleştirilmesinde kullanılan infografiklerin haber anlatısındaki yeri ile haberin görselleştirilmesinin bilgiyi anlamada ve etkileşiminde yarattığı potansiyel etkileri anlamak önemli bir gereksinimdir. Bu çalışma, veri gazeteciliği bağlamında infografik kullanımını TRT Haber özelinde inceleyerek bu infografikleri çeşitli kategorilerde analiz etmektedir. Çalışmada 01.04.2024-31.07.2024 tarihleri arasında TRT Haber sitesinde paylaşılan 94 adet haber infografiği; konusu, türü, görsel unsur hakkındaki istatistiksel bilgileri, grafik türleri, görsel-metin ağırlığı açısından incelenmiştir. İncelemeler, nitel araştırma yöntemleri içerisinde sıklıkla kullanılan, içerik analizi yöntemiyle yapılmıştır. Bu yöntem, metinleri ve belgeleri ya da medya çıktılarını analiz etmeyi belirli bir düzen içerisinde incelemeyi sağlar. Yapılan analizler, TRT Haber özelinde medya kuruluşlarının infografik kullanımının haberin okuyucu/izleyici kitlesine daha kolay aktarılmasında ve daha doğru anlaşılmasında etkili olduğunu göstermiştir.

**Anahtar Kelimeler:** Bilgi, İnfografik, Teknoloji, TRT Haber, Veri Gazeteciliği.

### ABSTRACT

In journalism, it is an important method to convey information to the public through online content using data visualisation tools. In this context, developments in information technologies are increasing the importance of data journalism in the world of communication. Data journalism is a journalism and news writing practice that involves the production of information-based news by providing a deeper perspective on a news story and statistically analysing large amounts of data. Media professionals using data journalism examine the events reported in depth and present texts that seem complex to the reader/viewer in a more understandable way. In this process, infographics play an important role in delivering information to the target audience in an effective and simple visual way. In this respect, it is important to understand the place of infographics used in the visualisation of information in the news narrative and the potential effects of visualisation of the news on the understanding and



interaction of information. This study examines the effects of media organisations' use of infographics in the context of data journalism on the understanding and dissemination of news in the context of TRT News as an example of online journalism. Çalışmada 01.04.2024-31.07.2024 tarihleri arasında TRT Haber sitesinde paylaşılan 94 adet haber infografiği; konusu, türü, görsel unsur hakkındaki istatistiksel bilgileri, grafik türleri, görsel-metin ağırlığı açısından incelenmiştir. The analyses were conducted with the content analysis method, which is frequently used in qualitative research methods. This method allows analysing texts and documents or media outputs in a certain order. The analyses have shown that the use of infographics by media organisations in TRT News is effective in transferring the news to the reader/audience more easily and understanding it more accurately.

**Keywords:** Information, Infographic, Technology, TRT News, Data Journalism.

**SYNTHESIS, CHARACTERIZATION, ANTICHOLINESTERASE INHIBITOR  
ACTIVITIES AND ANTIOXIDANT ACTIVITIES AND *IN SILICO* STUDIES OF  
NEW PYRAZOLE DERIVATIVE COMPOUNDS**

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**ÖZET**

Farmasötik kimya biliminin dinamik olmasının en önemli nedeni herhangi bir amaç için kullanılan ilacın belli bir süre sonra istenilen düzeyde etkinlik sağlamayarak aynı amaca hizmet edecek yeni ajanların geliştirmesidir. Vücutta üretilen serbest radikallerin bertaraf edilmediği müddetçe Alzheimer hastalığının (AH) yanı sıra çeşitli hastalıkların alt yapısını hazırladığı gibi DNA'ya hasar vererek kanser gibi önemli hastalığın oluşumuna neden olmaktadır. Serbest radikallerin giderimi için antioksidanlar kullanılmaktadır. Amaç doğrultusunda klinik tedavi uygulamalarından sentetik antioksidanların doğal antioksidanlardan daha başarılı olduğu ortaya konmuştur. AH, nörolojik bir hastalık olup, hafıza kaybına, bilişsel bozukluklara, kronik nörodejeneratif bozukluklara neden olmaktadır. Geri dönüşü olmayan ve hızla ilerleyen bu hastalık şuan dünya genelinde 50 milyon insanı etkilemekte ve bu sayı hızla yükselmektedir. Bu hastalığın tedavi edilebilmesi veya ilerleme hızının yavaşlatılabilmesi büyük önem arz etmektedir. Bundan dolayı da son yıllarda yeni ilaç tasarımlarına ihtiyaç duyulmaktadır. Bu çalışmada, kalkon bileşiklerinden yola çıkarak halka kapama yöntemiyle; ilaç tasarımlarında önemli bir yeri olan ve biyolojik aktivite açısından oldukça zengin heterosiklik halka olan pirazol halkası elde edildi. Sentezlenen bileşiklerin elementel analiz, <sup>1</sup>H NMR, FT-IR spektroskopik yöntemlerle yapı tayini yapıldı. Daha sonra bu bileşiklerin asetilkolinesteraz (AChE) ve butirilkolinesteraz (BChE) karşı antikolinesteraz inhibisyon aktivitesi, antioksidan aktivitesi (ABTS<sup>+</sup>, CUPRAC, DPPH' testleri) ve *in silico* çalışmaları SwissADME kullanılarak hesaplanmıştır.

**Anahtar Kelimeler:** Pirazol, Alzheimer Hastalığı, Antikolinesteraz İnhibitör Aktivite, SwissADME, Antioksidan Aktivite

**ABSTRACT**

The most important reason why pharmaceutical chemistry is dynamic is that a drug used for any purpose does not provide the desired level of effectiveness after a certain period of time and new agents are developed to serve the same purpose. Unless free radicals produced in the body are eliminated, they prepare the infrastructure for various diseases as well as Alzheimer's disease (AD) and cause the formation of important diseases such as cancer by damaging DNA. Antioxidants are used to eliminate free radicals. In line with this purpose, it has been shown that synthetic antioxidants are more successful than natural antioxidants in clinical treatment applications. Alzheimer's disease (AD) is a neurological disease that causes memory loss, cognitive impairment, and chronic neurodegenerative disorders. This

irreversible and rapidly progressing disease currently affects 50 million people worldwide, and this number is rapidly increasing. It is of great importance to be able to treat this disease or slow down its progression. Therefore, new drug designs have been needed in recent years. In this study, the pyrazole ring, which is a heterocyclic ring that has an important place in drug designs and is quite rich in terms of biological activity, was obtained by ring closure method based on chalcone compounds. The structure of the synthesized compounds was determined by elemental analysis, <sup>1</sup>H NMR, FT-IR spectroscopic methods. Then, the Anticholinesterase inhibitor activity (acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE)), antioxidant activity (ABTS+, CUPRAC, DPPH tests) and *in silico* studies of these compounds were calculated using SwissADME.

**Keywords:** Pyrazole, Alzheimer's Disease, Anticholinesterase Inhibitory Activity, SwissADME, Antioxidant Activity.

**THE IMPACT OF INFORMATION SYSTEMS ON THE MANAGEMENT OF  
ELECTRONIC COMMUNICATIONS**

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**Abstract**

Today, information technology and information have become among the most important resources for the executive during the formation of the leadership of an organization alongside people, money, material or machinery.

The information system consists of people and equipment, and its task is to collect data, process, memorize and transmit them. The information system processes information from data, respectively it transfers inputs to outputs according to the needs and requests for information.

Business requirements for information systems have increased a lot, and on the other hand, the rapid development of information technology gives the opportunity for the application of various types of hardware and software, which did not exist a few years ago, where they also help to develop and meet the requirements for information systems.

**İLKÖĞRETİM MATEMATİK ÖĞRETMENİ ADAYLARININ TEKNOLOJİ  
DESTEKLİ DİKDÖRTGEN İNŞA SÜRECİNDE ORTAKLAŞA ARGÜMANTASYON  
SÜREÇLERİNİN İNCELENMESİ**

INVESTIGATION OF PRE-SERVICE PRIMARY MATHEMATICS TEACHERS'  
COLLECTIVE ARGUMENTATION PROCESSES IN TECHNOLOGY-SUPPORTED  
RECTANGLE CONSTRUCTION PROCESS

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**ÖZET**

Bu çalışmada ilköğretim matematik öğretmeni adaylarının GeoGebra destekli dikdörtgen inşa sürecindeki ortaklaşa argümantasyon süreçlerinin incelenmesi amaçlanmaktadır. Nitel araştırma paradigmasının benimsendiği bu çalışmanın deseni durum çalışması olarak belirlenmiştir. Çalışmanın katılımcılarını Türkiye'de bir öğretmen eğitimi programından mezun olan üç ilköğretim matematik öğretmeni adayı oluşturmaktadır. Veri toplama sürecinde katılımcılardan GeoGebra programında yalnızca pergel ve doğru araçlarını kullanarak dikdörtgen inşa etmeleri istenmiştir. Söz konusu çalışmanın verileri öğretmen adaylarının dikdörtgen inşası sırasında gerçekleşen tartışmalarının video kayıt transkriptlerinden ve katılımcıların çözüm kağıtlarından oluşmaktadır. Verilerin analizi için öncelikle tartışmanın video kayıtları transkript edilerek metne dökülmüştür. Ardından transkript metninde katılımcıların ifadeleri Toulmin'in (2003) argümantasyon sürecinin bileşenlerine göre analiz edilmiştir. Bir başka deyişle öncelikle katılımcıların iddiaları belirlenmiş, ardından bu iddialara ilişkin diğer bileşenler ortaya çıkarılmıştır. Bu çalışmanın başlıca bulgularına değinilecek olunursa, dikdörtgenin dinamik inşasında GeoGebra çürütücü/gerekçe ve iddia/veri bağlantısının oluşumunu desteklemiştir. Katılımcılar ilk başta kare oluşturmuşlar ancak sürgü aracının dinamik özelliği onların oluşturdukları kareyi dikdörtgene dönüştürmelerine fırsat sağlayarak doğru iddiaya ulaşmalarına sebep olmuştur. Oluşturdukları geometrik şeklin kare mi dikdörtgen mi olduğunu göstermek yani ortaya attıkları iddiayı doğrulamak için GeoGebra'yı kullanmışlardır. Son olarak GeoGebra katılımcıların yanlış olan iddialarının çürütülmesine ve doğru iddiaya ulaşmalarına sebep olarak gerekçeyi destekleyici bir rolde kullanılmıştır. Temel olarak GeoGebra, açılarının ölçülmesi, geometrik şeklin inşa edilmesi, sürüklenmesi ve ekrandaki çizimler ya da ölçü değişikliklerinin gözlemlenmesi amacıyla kullanılmıştır. Teknolojinin ortaklaşa argümantasyon sürecinde nasıl kullanıldığını ayrıntılı olarak incelemek için çeşitli geometrik inşaa problemlerinin çözümüne yönelik araştırma yapılması önerilmektedir.

**Anahtar Kelimeler:** Ortaklaşa argümantasyon, geometrik inşa, dikdörtgen, GeoGebra.

## ABSTRACT

The aim of this study is to investigate the collective argumentation processes of pre-service primary mathematics teachers in rectangle construction process. The design of this study, in which qualitative research paradigm was adopted, was determined as a case study. The participants of the study consisted of three pre-service primary mathematics teachers who graduated from a teacher education program in Turkey. During the data collection process, the participants were asked to construct a rectangle using only compass and line tools in GeoGebra software. The data of this study consisted of the video recording transcripts of the discussions of the pre-service teachers during the rectangle construction process, and their solution paper. For the analysis of the data, the video recordings of the discussion were transcribed first. Then, the statements of the participants in the transcript text were analyzed according to Toulmin's (2003) components of the argumentation process. In other words, firstly, the participants' claims were determined and then other components related to these claims were revealed. If the main findings of this study are mentioned, GeoGebra supported the formation of the rebuttal/warrant and claim/data link in the dynamic construction of the rectangle. The participants initially constructed a square, but the dynamic feature of the slider tool in GeoGebra provided them with the opportunity to transform the square they formed into a rectangle, and caused them to reach a new claim. They benefited from technology to show whether the geometric shape they constructed was a square or a rectangle, that is, to verify the claim they made. Finally, GeoGebra was used in the role of supporting a warrant by causing the participants to refute their false claims and reach the correct claim. Basically, GeoGebra was used to measure angles, construct and drag the geometric shape, and observe changes in sketches or sizes on the screen. In order to examine in detail how technology is used in the collaborative argumentation process, it is recommended to conduct research on the solution of various geometric construction problems.

**Key words:** Argumentation, geometric construction, rectangle, GeoGebra.

## TÜRKİYE'DE GÖRME YETERSİZLİĞİ BULUNAN BİREYLERLE SON 10 YILDA YÜRÜTÜLEN MATEMATİK EĞİTİMİ ARAŞTIRMALARINA İLİŞKİN BİR META-SENTEZ ÇALIŞMASI

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### ÖZET

Bu çalışmanın amacı, Türkiye'de 2014-2024 yılları arasında görme yetersizliği bulunan bireylerin matematik eğitimi ile ilgili yapılmış nitel akademik çalışmaların incelenmesidir. Araştırmanın kapsamı, belirli bir zaman diliminde tamamlanmış akademik çalışmalar ve yayınlardan oluşmaktadır. Geçerlilik ve güvenilirliği sağlamak amacıyla, çalışmanın amacı ve araştırma soruları açıkça belirtilmiştir. Bulguların geçerliliğini sağlamak için veri toplama yöntemleri ve ölçütler detaylı bir şekilde açıklanmıştır. Ayrıca, elde edilen veriler, görme yetersizliği olan öğrencilerin matematik eğitimi ile ilgili hedeflenen amaçlar, örneklem grubu, kullanılan yöntemler, veri toplama araçları ve araştırma sonuçları açısından değerlendirilmiştir. Veriler, frekans ve tablolar aracılığıyla yorumlanmıştır. Sonuç olarak, görme yetersizliği olan öğrenciler ve onlarla çalışan öğretmenlerin matematik eğitimi konusunda hem literatüre hem de uygulamaya katkı sağlayacak daha fazla çalışmaya ihtiyaç duyulduğu sonucuna varılabilir. Anahtar Kelimeler: Görme yetersizliği, görme engelli, matematik eğitimi.

### A META-SYNTHESIS STUDY ON MATHEMATICS EDUCATION RESEARCH CONDUCTED WITH VISUALLY IMPAIRED INDIVIDUALS IN TURKEY IN THE LAST 10 YEARS

### ABSTRACT

The aim of this study is to examine qualitative academic research conducted on the mathematics education of individuals with visual impairments in Turkey between 2014 and 2024. The scope of the research consists of academic studies and publications completed within this specific time frame. To ensure validity and reliability, the study's objectives and research questions have been clearly stated. Detailed explanations of the data collection methods and criteria have been provided to ensure the validity of the findings. Additionally, the obtained data have been evaluated in terms of the targeted goals, sample group, methodologies, data collection tools,

and research results related to the mathematics education of students with visual impairments. The data have been interpreted through frequencies and tables.

As a result, it can be concluded that there is a need for further research that contributes to both the literature and practice regarding the mathematics education of students with visual impairments and the teachers working with them.

Keywords: Visual impairment, visually impaired, mathematics education



**COMPARATIVE ANALYSIS OF BRAIN GRAPH METRICS IN YOUNG AND OLDER ADULTS**

**GENÇ VE YAŞLI ERİŞKİNLERDE BEYİN GRAF METRİKLERİNİN KARŞILAŞTIRMALI BİR ANALİZİ**

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**ABSTRACT**

Alzheimer's disease (AD) is a progressive neurodegenerative disorder that affects millions of individuals worldwide, with increasing prevalence in aging populations. Understanding the neural underpinnings of AD is crucial for developing effective diagnostic and therapeutic strategies. On the other hand, graph theory, which is a powerful mathematical framework, offers valuable insights into the structural and functional connectivity of the brain. Graph theory enables the representation of the brain as a network of nodes (brain regions) and edges (connections between regions), facilitating the study of its structural and functional organization. In this study, we conducted a comparative analysis of graph metrics in healthy young and older adults and with an Alzheimer's-based fMRI task to observe the age-related differences in brain network organization. Utilizing advanced neuroimaging techniques and graph theoretical approaches, we evaluated key graph metrics such as node degree, clustering coefficient, path length, and modularity. These metrics provide critical information about the connectivity and efficiency of brain networks, revealing how age disrupts the normal organization of the brain. Our findings reveal distinct patterns of network disruption in young and older adults, highlighting the importance of age-specific interventions. These results contribute to a deeper understanding of the complex relationship between aging, brain connectivity, and Alzheimer's disease, paving the way for improved clinical applications.

**Keywords:** graph theory, brain networks, Alzheimer's, graph metrics

**ÖZET**

Alzheimer hastalığı (AD), dünya genelinde milyonlarca kişiyi etkileyen ve yaşlanan nüfuslarda artan yaygınlık gösteren ilerleyici bir nörodejeneratif bozukluktur. AD'nin sinirsel temellerini anlamak, etkili tanı ve tedavi stratejileri geliştirmek için çok önemlidir. Diğer yandan, güçlü bir matematiksel yöntem olan graf (çizge) teorisi, beyin yapısal ve işlevsel bağlantıları hakkında değerli bilgiler sunar. Graf teorisini, beyin düğümleri (beyin bölgeleri) ve kenarlar (bölgeler arasındaki bağlantılar) ağı olarak temsil edilmesini sağlar ve yapısal ve işlevsel organizasyonunun incelenmesini kolaylaştırır. Bu çalışmada, sağlıklı genç ve yaşlı yetişkinlerde beyin ağ organizasyonundaki yaşa bağlı farklılıkları gözlemlemek için graf ölçümlerinin karşılaştırmalı analizini Alzheimer tabanlı bir fMRI görevi ile gerçekleştirdik. Gelişmiş nörogörüntüleme teknikleri ve grafik teorik yaklaşımlar kullanarak düğüm derecesi, kümelenme katsayısı, yol uzunluğu ve modülarite gibi önemli grafik ölçümlerini değerlendirdik. Bu ölçümler, beyin ağlarının bağlantıları ve verimliliği hakkında kritik bilgiler sunarak, yaşın etkisinin sağlıklı ağ organizasyonunu nasıl bozduğunu ortaya koymaktadır. Bulgularımız, genç ve yaşlı yetişkinlerde ağ bozulmasının farklı desenlerini ortaya çıkararak yaşa özgü müdahalelerin önemini vurgulamaktadır. Bu sonuçlar, yaşlanma, beyin bağlantısı ve Alzheimer hastalığı arasındaki karmaşık ilişkiyi daha derin bir şekilde anlamaya katkıda bulunarak, klinik uygulamaların iyileştirilmesine zemin hazırlar.

**Anahtar Kelimeler:** graf teorisi, beyin ağları, Alzheimer, graf metrikleri

**İBN TEYMIYYE FELSEFESİNDE HIÇLIĞE VE KÖTÜLÜĞE TUTSAKLIGIN  
İFADESİ OLARAK İKİNCİ TABİAT KAVRAMI**  
THE CONCEPT OF SECOND NATURE AS AN EXPRESSION OF CAPTIVITY TO  
NIHILITY AND EVIL IN THE PHILOSOPHY OF IBN TAYMIYYA

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**ÖZET**

Bu bildiri, İbn Teymiyye felsefesinde ikinci tabiatın varlıkla ve ahlakla ilişkisini konu edinmektedir. Ulaşmak istediği amaç ise İbn Teymiyye düşüncesinde ikinci tabiatın, varlıksal yahut tanrısal olan erdem ve ahlakiliğin muhtelif düzeylerde hiçliğini yahut varlığını karşılayan bir kavram olduğunu tespit etmektir. İkinci tabiatla ilgili daha önce yapılan bazı çalışmalar olsa da hem İbn Teymiyye hem de ortaya koyduğu bakış açısı dolayımında akademik bir çalışmanın yapılmadığı söylenebilir. Bu itibarla bildirimiz, konuya dair farklı bir perspektif oluşturacak, var olan boşluğu doldurmaya yönelik bir katkı sunacaktır.

Çalışma, “Tabiatlar dış gerçeklikler olarak vardır.” ve “İnsan, iyi kimliğine sahip bir tabiatla varlık sahasına çıkar.” öncülleri üzerine inşa edilmektedir. Bununla birlikte, bu öncüllerle aynı anda sabit olan bir sonuçtan ziyade bu öncüllerce içerilen “tabiat” ve “sahiplik” niteliklerinin görece oranlarda yokluktan pay almasıyla tezahür eden bir sonuç olarak ikinci tabiat odağında işlenmektedir. Tanrı’nın yaratışına matuf varlıksal ve iyi olarak dünyaya gözlerini açan insanın kendisine gerek olan toplumsallık ve buna bağlı olarak maruz kaldığı varlıksal olmayan öğreti, davranış, eğitim ve sair durumlar itibarıyla sahip olduğu tabii kimliğini yitirmeye başladığı an, ikinci tabiata dönüşmesi tekrarlarba bağlı olan hiçliklerin insana ârız olmaya başladığı ve insanî varlıksallığın ve iyiliğin yitirilme sürecine girilen an olarak tanımlanabilir. İbn Teymiyye, varlıksal olmayan ikinci tabiatlardaki nicelik ve nitelik yönünden vuku bulan her şiddetlenme ve derinleşmeyi, hiçlik ve onun bir gereği olan kötülük bataklığına biraz daha saplanma olarak telakki etmektedir. Dolayısıyla ona göre ahlakilik ve tanrısal erdeme kavuşmak için bu tür ikinci tabiatlardan kurtulmak gerekir. İbn Teymiyye’nin desteklediği bu yaklaşımın, insanın iyiye ve ahlakiliğe ancak ve ancak yapay müdahale ile kendinde yaratacağı ikinci tabiat üzerinden ulaşabileceğini savlayan metafizik yaklaşımları ters yüz ettiğini de söylemek mümkündür. Ona göre ahlak kazanılması gereken değil korunması veya kurtarılması gerek bir olgudur.

**Anahtar Kelime:** İbn Teymiyye, İnsan, İkinci Tabiat, Ahlak.

**ABSTRACT**

This paper examines the relationship of second nature with existence and morality in the philosophy of Ibn Taymiyya. The aim is to identify how the concept of second nature in Ibn Taymiyya’s thought corresponds to various levels of non-existence of existential or divine virtues and morality. Although some previous studies have addressed second nature, it can be argued that no academic work focuses explicitly on Ibn Taymiyya and his perspective. Therefore, our paper will offer a different perspective on the subject and contribute to filling the existing gap.

The study is built on the premise that “Natures exist as external realities” and that “Humans emerge into existence with a nature that has a good identity.” However, instead of a result fixed simultaneously with these premises, it is addressed as a result that manifests through the relative

participation of the qualities of “nature” and “ownership” in varying degrees of non-existence, focusing on second nature. The moment when a person who opens their eyes to the world as purely existential and sound due to God’s creation begins to lose their natural identity due to the necessary sociality and the associated non-existential teachings, behaviours, education, and other conditions they are exposed to, can be defined as the moment when second nature emerges, and the process of losing human existence and goodness begins. Ibn Taymiyya considers every intensification and deepening in the quantity and quality of non-existence second natures as a further immersion in the swamp of non-existence and its requisite evil. Therefore, according to him, one must rid oneself of such second nature to achieve morality and divine virtue. It can also be said that this approach, supported by Ibn Taymiyya, overturns metaphysical approaches that claim a person can only achieve goodness and morality only through a second nature that is artificially created within themselves. According to him, morality is not a phenomenon to be acquired but needs to be preserved or rescued.

**Keywords:** Ibn Taymiyya, Human, Second Nature, Morality.

**GÜNEŞLENMEDEN YARARLANMAK AMACIYLA KONUT ALANLARINDA  
YAPI YOĞUNLUKLARININ SOLAR ENVELOPE YÖNTEMİYLE BELİRLENMESİ  
DETERMINATION OF BUILDING DENSITIES IN RESIDENTIAL AREAS USING THE  
SOLAR ENVELOPE METHOD TO BENEFIT FROM SUNSHINE**

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**ÖZET**

Enerji verimliliği ve çevresel sürdürülebilirlik, çağdaş mimarinin en önemli amaçları arasında yer almaktadır. Bu hedefler doğrultusunda, binaların enerji gereksinimlerini yenilenebilir kaynaklardan karşılamak büyük önem taşır. Özellikle güneş enerjisi, sürdürülebilir yapı tasarımında merkezi bir rol oynamaktadır. Güneş enerjisinden pasif olarak faydalanmak, mekanik sistemlere duyulan ihtiyacı azaltarak enerji verimliliğini artırır. Şehirleşme ve yoğun bina dokusu, binaların birbirlerinin güneş ışığını kesmesine yol açabilir. Bu sorunu yönetmek amacıyla geliştirilen Solar Envelope yöntemi mimari projelerde etkili bir çözüm sunabilir.

Bu çalışmada, Konya kentindeki üç farklı bölgedeki yapı adalarında güneş ışığından maksimum verim elde etmek amacıyla, solar envelope yöntemi uygulanarak kapsamlı bir güneşlenme analizi gerçekleştirilmiştir. Araştırma, şehirdeki çeşitli imar koşullarının ve yapı yoğunluğunun güneş ışığından yararlanma üzerindeki etkilerini değerlendirmeyi hedeflemiştir. Solar envelope yöntemi kullanılarak, her bölgenin güneş ışığından en verimli şekilde faydalanabilmesi için uygun hacimsel sınırlar belirlenmiştir. Bu kapsamda, yapı adalarındaki mevcut yapı düzenlemeleri, yerleşim planları ve çevresel faktörler dikkate alınarak, güneş ışığını maksimum düzeyde almak için bina formlarında ve yerleşimlerinde yapılan değişiklikler incelenmiştir. Araştırmada, Konya'nın değişik imar koşullarına sahip üç bölgesinde mevcut yapı düzenlemeleri ve çevresel faktörler dikkate alınarak, güneş ışığının bina yüzeylerine etkisi analiz edilmiştir. Her bölgede, solar envelope yöntemiyle tasarlanan alternatif yapı form ve düzenlemeleri, geleneksel tasarım yaklaşımlarına kıyasla daha verimli güneşlenme koşulları sağlamış ve enerji verimliliğini artırmıştır. Elde edilen sonuçlar, güneş ışığının etkili bir şekilde kullanılması için yapı tasarımında sistematik bir yaklaşımın gerekliliğini vurgulamaktadır. Bu analiz, sürdürülebilir yapı tasarımı ve enerji verimliliği konularında pratik öneriler sunarak, şehir planlaması ve mimari tasarım uygulamalarına katkıda bulunmayı amaçlamaktadır.

**Anahtar kelimeler:** Solar envelope, güneşlenme, enerji etkinliği, yapı tasarımı

**ABSTRACT**

Energy efficiency and environmental sustainability are among the most important goals of contemporary architecture. In line with these objectives, it is crucial to meet the energy requirements of buildings through renewable sources. Solar energy, in particular, plays a central role in sustainable building design. Utilizing solar energy passively increases energy efficiency by reducing the need for mechanical systems. Urbanization and dense building textures can lead to buildings blocking each other's sunlight. The Solar Envelope method, developed to manage this issue, can provide an effective solution in architectural projects.

In this study, a comprehensive solar analysis was conducted using the Solar Envelope method to maximize the utilization of sunlight in building blocks in three different regions of Konya. The research aimed to evaluate the effects of various zoning conditions and building densities in the city on the utilization of sunlight. Using the Solar Envelope method, appropriate volumetric boundaries were determined to ensure each region could make the most efficient use of sunlight. In this context, existing building arrangements, settlement plans, and environmental factors in the building blocks were considered, and changes made in building forms and settlements to maximize sunlight intake were examined. The study analyzed the impact of sunlight on building surfaces by considering the existing building arrangements and environmental factors in three regions of Konya with different zoning conditions. In each region, alternative building forms and arrangements designed with the Solar Envelope method provided more efficient sunlight conditions and increased energy efficiency compared to traditional design approaches. The results highlight the necessity of a systematic approach in building design to effectively utilize sunlight. This analysis aims to contribute to urban planning and architectural design practices by offering practical suggestions on sustainable building design and energy efficiency.

*Keywords: Solar envelope, insolation, energy efficiency, building design*

## ORTAOKUL 7.SINIF ÖĞRENCİLERİNİN YÜZDELER KONUSUNDA MATEMATİKSEL DİL BECERİLERİNİN İNCELENMESİ

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### ÖZET

Bu araştırma ortaokul 7.sınıf öğrencilerinin yüzdeler konusundaki matematiksel dil becerilerini ölçmek ve matematiksel dile ilişkin görüşlerini belirlemek için gerçekleştirilmiştir. Veri analizi öncesinde öğrencilerin doldurduğu başarı değerlendirme soruları ve ölçekler tek tek incelenmiş, yanlış ve eksik doldurulan veri toplama araçları değerlendirme dışında bırakılmıştır. Diğer veri toplama araçları ise numaralandırılarak bilgisayar ortamında veri analizi programına aktarılmıştır. Veri analizinde SPSS 16.0 bilgisayar paket programı kullanılmıştır. “Yüzdeler Konusundaki Başarı Değerlendirme Sorularına” ait veri analizinde en az üç matematik öğretmenliği ana bilim dalından öğretim üyesi ve araştırmacı tarafından ayrı ayrı cevap anahtarları hazırlanmış ve sonuçlar karşılaştırılmıştır. Karşılaştırma sonucunda hazırlanan cevap anahtarına uygun şekilde veri analizi yapılmıştır. Sorulara ait cevaplar ayrı ayrı değerlendirilmiş ve veri analizinde yüzde e frekans hesapları kullanılmıştır.

Araştırmamızda iki veri toplama aracı kullanılmıştır. Bunlardan ilki 16 açık uçlu sorudan oluşan ve öğrencilerin yüzdeler konusundaki matematik başarısını belirlemeyi amaçlayan başarı değerlendirme sorularıdır. İkincisi ise likert tipi matematiksel dil ölçeğidir. Bu ölçek öğrencilerin matematiksel dile ilişkin görüşlerini belirlemeyi amaçlamıştır. Veri toplama araçlarına pilot çalışmalar ve uzman görüşlerinin alınmasıyla son şekli verilmiştir. Araştırmanın evrenini, Aydın ilindeki tüm 7. sınıf ortaokul öğrencileri oluşturmaktadır. Araştırmanın örneklemini, Aydın ilinde bulunan bir devlet ortaokul 7.sınıfında eğitim-öğretimine devam eden 7. sınıf öğrencileri oluşturmaktadır.

**Anahtar Kelimeler:** Yüzdeler, matematik başarıları, dil becerileri, matematiksel dil becerisi

### INVESTIGATION OF MATHEMATICAL LANGUAGE SKILLS OF SECONDARY SCHOOL 7TH GRADE STUDENTS ON PERCENTAGES

#### ABSTRACT

This research was conducted to measure the mathematical language skills of 7th grade secondary school students and to determine their views on mathematical language. Before data analysis, the achievement tests and scales filled out by the students were examined one by one, and incorrectly and incompletely filled data collection tools were excluded from the evaluation. Other data collection tools were numbered and transferred to the data analysis program in the

computer environment. SPSS 16.0 computer package program was used in data analysis. In the data analysis of the "Percentages Achievement Test", separate answer keys were prepared by at least three faculty members and researchers from mathematics teaching departments and the results were compared. Data analysis was conducted in accordance with the answer key prepared as a result of the comparison. The answers to the questions in the test were evaluated separately and percentage and frequency calculations were used in data analysis.

Two data collection tools were used in our research. The first of these is an achievement test consisting of 8 questions and aiming to determine students' mathematics achievement in percentages. The second is a Likert type mathematical language scale. This scale aimed to determine students' views on mathematical language. Data collection tools were finalized after pilot studies and expert opinions. The population of the research consists of all 7th grade secondary school students in Aydın province. The sample of the research consists of 7th grade students who continue their education in the 7th grade of a public secondary school in Aydın.

**Keywords:** Percentages, math achievements, language skills, possessive language skills

\*Bu bildiri Dilek Çelimli Mungan'nın yüksek lisans tezinden üretilmiştir.

**ORTAOKUL 7.SINIF ÖĞRENCİLERİNİN YÜZDELER KONUSUNDA  
MATEMATİK BAŞARILARININ İNCELENMESİ**

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**ÖZET**

Bu araştırma ortaokul 7.sınıf öğrencilerinin yüzdeler konusunda matematik başarılarını belirlemek için gerçekleştirilmiştir. Veri analizi öncesinde öğrencilerin doldurduğu başarı değerlendirme soruları ve ölçekler tek tek incelenmiş, yanlış ve eksik doldurulan veri toplama araçları değerlendirme dışında bırakılmıştır. Diğer veri toplama araçları ise numaralandırılarak bilgisayar ortamında veri analizi programına aktarılmıştır. Veri analizinde SPSS 16.0 bilgisayar paket programı kullanılmıştır. “Yüzdeler Konusundaki Başarı Değerlendirme Sorularına” ait veri analizinde en az üç matematik öğretmenliği ana bilim dalından öğretim üyesi ve araştırmacı tarafından ayrı ayrı cevap anahtarları hazırlanmış ve sonuçlar karşılaştırılmıştır. Karşılaştırma sonucunda hazırlanan cevap anahtarına uygun şekilde veri analizi yapılmıştır. Sorulara ait cevaplar ayrı ayrı değerlendirilmiş ve veri analizinde yüzde e frekans hesapları kullanılmıştır.

Araştırmamızda 16 açık uçlu sorudan oluşan ve öğrencilerin yüzdeler konusundaki matematik başarılarını belirlemeyi amaçlayan başarı değerlendirme soruları veri aracı olarak kullanılmıştır..

Veri toplama araçlarına pilot çalışmalar ve uzman görüşlerinin alınmasıyla son şekli verilmiştir. Araştırmanın evrenini, Aydın ilindeki tüm 7. sınıf ortaokul öğrencileri oluşturmaktadır. Araştırmanın örneklemini, Aydın ilinde bulunan bir devlet ortaokul 7.sınıfında eğitim-öğretimine devam eden 7. sınıf öğrencileri oluşturmaktadır

**Anahtar Kelimeler:** Geometrik düşünme düzeyleri, kavram haritası, yüzdeler

**INVESTIGATION OF MATHEMATICAL ACHIEVEMENTS OF SECONDARY  
SCHOOL 7TH GRADE STUDENTS ON PERCENTAGES**

**ABSTRACT**

This research was carried out to determine the mathematics achievement of 7th grade secondary school students in terms of percentages. Before data analysis, the success evaluation questions and scales filled out by the students were examined one by one, and incorrectly and incompletely filled data collection tools were excluded from the evaluation.



Other data collection tools were numbered and transferred to the data analysis program in the computer environment. SPSS 16.0 computer package program was used in data analysis. In the data analysis of the "Achievement Evaluation Questions on Percentages", separate answer keys were prepared by at least three faculty members and researchers from mathematics teaching departments and the results were compared. Data analysis was conducted in accordance with the answer key prepared as a result of the comparison. The answers to the questions were evaluated separately and percentage and frequency calculations were used in data analysis.

Two data collection tools were used in our research. The first of these is the achievement assessment questions, which consist of 16 open-ended questions and aim to determine students' mathematics achievement in the subject of percentages. The second is a Likert type mathematical language scale. This scale aimed to determine students' views on mathematical language. The data collection tools were finalized after pilot studies and expert opinions. The population of the research consists of all 7th grade secondary school students in Aydın province. The sample of the research consists of 7th grade students who continue their education in the 7th grade of a public secondary school in Aydın.

**Key words:** Geometric thinking levels, concept map, percentages.

\*Bu bildiri arařtırmacının yüksek lisans tezinden üretilmiřtir.

## INTRODUCTION TO QUASI-OPEN SETS IN BISPACES

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### ABSTRACT

This paper comprehensively examines quasi-open sets, quasi-continuity, and semi-open sets within the framework of bispaces. We start by exploring the definitions and fundamental properties of these concepts, which are variations of classical notions in topology, and discuss their relevance and implications in studying bitological spaces.

In particular, we search into the structural aspects of bispaces, which are topological spaces endowed with two distinct topologies, and analyze how the results and theories applicable to bitological spaces, that are spaces with certain specific properties, that can be extended to bispaces.

We address several key questions: How do quasi-open sets and quasi-continuous functions interact within the setting of bispaces? Do the properties of semi-open sets in conventional topological spaces hold under the more complex structure of bispaces? We provide a range of examples to illustrate the behavior of these concepts in bispaces and present counterexamples where classical results fail to extend, highlighting the nuanced differences between bitological spaces and bispaces.

Through detailed investigation, we uncover the intricate relationships between these new types of sets and functions and offer insights into their practical implications. Our findings contribute to a deeper understanding of how extended topological concepts operate in bispaces, potentially influencing future research directions in the field of topology.

**Keywords:** quasi-open sets, compactness, quasi-continuity

**JOSE ORTEGA Y GASSET'İN TARİH ANLAYIŞI**  
**JOSE ORTEGA Y GASSET'S UNDERSTANDING OF HISTORY**

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**ÖZET**

Gasset'in tarih anlayışını üç boyut üzerinden anlamak gerekir: ilk boyutu oldukça ciddi bir karamsarlık noktasından kendine çıkış bulmuştur. Gasset'e göre geçmişten bugüne insan türü, kimi zaman vahiylerle, kimi zaman akla ve bilime sığınmış, cevapları bu noktalardan aramıştır. Ancak ona göre son kertede, tüm arayışların sonuna gelinmiş ve insanın elinde yalnızca düş kırıklığı içindeki yaşamı kalmıştır. Tam da bu düş kırıklığı içindeki yaşama dönen birey sayesinde tarih olgusunun ne denli önemli olduğu gün yüzüne çıkmaktadır. Ona göre insan, sırf merak ettiği için ya da başka bir gerekçeyle değil, elinde başka çaresi olmadığı için tarihe başvurur.

İkinci boyutta Gasset'e göre insanı diğer canlı türlerinden ayıran temel unsur ne akıllı bir varlık oluşu ne de araç-gereç yapabilme becerisidir. Ona göre temel ayırt edici unsur, insanın bir tarihinin oluşudur. İnsanın diğer canlıların aksine bir tarihinin oluşu -bu tarihin içine tüm anıları, yaşam deneyimlerini sokmak mümkündür- insan olmanın temel kriteridir. Hatta Gasset geçmişle sürekliliğimizi sağlayan bağlardan kopmayı, insanın hayvanlara öykünmesiyle eş değer görür.

Üçüncü boyutta Gasset tarihi, geride kalmış bir geçmiş, soyut ve gerçekdışı bir olgu olmanın ötesinde bugünümüzü ayakta tutan bir canlı ve etkin bir güce sahip olan bir olgu olarak görmektedir. Başka bir deyişle geçmiş, mazide değil, buracıkta benim içimdedir.

Gerçekten de Gasset'in tarih anlayışının oldukça geniş bir yelpaze açısına sahip olduğu görülmektedir. Onun yaklaşımında tarih, kimi önemli olayların kronolojik olarak sıralanmasından ibaret değildir. Onun tarih anlayışının içerisinde mikrodan makroya değin hem insanın hem de daha büyük topluluk ve organizasyonların varlığı görülür. Bu yüzden ki tarihi bilmek, yalnızca geçmişteki önemli olayları bilmek değildir, bundan çok daha fazlasıdır. İnsanı insan yapan, onun bir tarihinin oluşudur.

**Anahtar Kelimeler:** Gasset, Tarih, Tarih Anlayışı.

## ABSTRACT

Gasset's understanding of history should be comprehended through three dimensions: the first dimension has emerged from a point of considerable pessimism. According to Gasset, humanity has sought answers from revelations, reason, and science throughout history. However, he argues that ultimately, all these pursuits have led to a dead end, leaving humanity with only a life filled with disillusionment. It is precisely through the individual who turns back to this disillusioned life that the significance of the historical phenomenon is revealed. According to him, humanity resorts to history not out of mere curiosity or any other reason but because there is no other option left.

In the second dimension, Gasset posits that the fundamental trait distinguishing humans from other living beings is neither their intelligence nor their tool-making ability. The primary distinguishing feature, according to him, is that humans have a history. Unlike other beings, having a history - which encompasses all memories and life experiences - is the fundamental criterion of being human. Gasset even equates breaking away from the ties that ensure our continuity with the past to humans imitating animals.

In the third dimension, Gasset views history not as a past that is left behind, an abstract and unreal phenomenon, but as a living and active force that upholds our present. In other words, the past is not in the bygone days but right here within me.

Indeed, it can be seen that Gasset's understanding of history has a broad scope. In his approach, history is not merely the chronological order of certain significant events. His understanding of history encompasses the existence of both individuals and larger communities and organizations, from the micro to the macro level. Therefore, knowing history is not just about knowing significant past events; it is much more than that. What makes a person human is having a history.

**Keywords:** Gasset, History, Understanding of History.

**TARIMDA UZAKTAN ALGILAMA VE COĞRAFI BİLGİ SİSTEMİ TEKNİKLERİNİN  
KULLANIM OLANAKLARI**

**POSSIBILITIES OF USING REMOTE SENSING AND GEOGRAPHICAL  
INFORMATION SYSTEM TECHNIQUES IN AGRICULTURE**

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**ÖZET**

Sağladığı istihdam, ihracat ve ulusal gelire sunduğu katkılar bakımından tarım, Türkiye için önemli sektörlerden biridir. Tarımın verimli ve sürdürülebilir olabilmesi birçok parametreye bağlıdır. Sulama alanlarının tespiti, yetiştirilecek ürünler için uygun alanların belirlenmesi, rekolte tahmini gibi sonuçların uygulamaya geçmeden elde edilmesi hem zaman ve maliyet kaybının önüne geçmekte hem de uygulamaya başlandığında verimi arttırmaktadır. Günümüzde tarımsal faaliyetlerin artış göstermesi bu sektörde yapılacak çalışmaların daha etkin ve verimli bir şekilde yönetilmesi ihtiyacını da beraberinde getirmektedir. Günümüzde yönetimlerin etkin bir şekilde yürütülmesinde, kararların verilmesinde, faaliyetlerin planlanmasında, zamansal ve konumsal analizlerin yapılmasında birçok disiplin tarafından sıklıkla kullanılan Uzaktan Algılama teknolojisi ve Coğrafi Bilgi Sistemleri teknikleri tarımsal çalışmalarda da sıklıkla kullanılmaktadır. Uzaktan Algılama Teknolojisi, bitki sağlığının ve gelişiminin takip edilmesi, rekolte tahmini, arazi kullanımının belirlenmesi, bitki tipinin ve ürün çeşitliliğinin belirlenmesi ve toprak nemi başta olmak üzere birçok toprak özelliklerinin belirlenmesi için kullanılırken, konuma dayalı kararların alınması, arazi ve toprak yönetiminin yapılması, grafik ve grafik olmayan verilerin sorgulanması, analizi için Coğrafi Bilgi Sistemleri kullanılmaktadır. Bu çalışmada, uzaktan algılama ve coğrafi bilgi sistemleri tekniklerinin tarım sektöründeki yeri, bu tekniklerin tarımsal faaliyetlerde ne şekilde kullanıldığı ve sağladığı katkılar araştırılmıştır. Araştırma sonucunda tarımsal faaliyetlerin planlama, uygulama, hasat ve gelecek dönem tahminleri dahil olmak üzere hemen her aşamasında uzaktan algılama ve coğrafi bilgi sistemleri teknikleri kullanımının gittikçe arttığı ve kullanılan teknikler sayesinde etkin planlamayla beraber zaman kayıplarının önüne geçilmesi ve maliyetlerin azalması gibi kazanımların olduğu görülmektedir.

**Anahtar kelimeler:** Coğrafi Bilgi Sistemleri, Tarım, Uzaktan Algılama.

**ABSTRACT**

Agriculture is one of the important sectors for Turkey in terms of the employment it provides, exports and contributions it offers to national income. The efficiency and sustainability of agriculture depends on many parameters. Obtaining results such as determination of irrigation areas, determination of suitable areas for products to be grown, and yield estimation before implementation both prevents time and cost loss and increases efficiency when implementation is started. The increase in agricultural activities today brings with it the need for more effective and efficient management of the work to be done in this sector. Remote Sensing technology and Geographic Information Systems techniques, which are frequently used by many disciplines in the effective execution of management, decision-making, planning of activities, and temporal and spatial analysis, are also frequently used in agricultural studies. Remote Sensing Technology is used to monitor plant health and development,

estimate yield, determine land use, determine plant type and product diversity, and determine many soil properties, especially soil moisture, while Geographic Information Systems are used to make location-based decisions, manage land and soil, and query and analyze graphical and non-graphical data. In this study, the place of remote sensing and geographic information systems techniques in the agricultural sector, how these techniques are used in agricultural activities, and their contributions are investigated. As a result of the research, it is seen that the use of remote sensing and geographic information systems techniques is increasing in almost every stage of agricultural activities, including planning, implementation, harvest and future period predictions, and thanks to the techniques used, there are gains such as preventing time losses and reducing costs with effective planning.

**Keywords:** Agriculture, Geographic Information Systems, Remote Sensing.

**GIYSİ SİMÜLASYON TEKNOLOJİLERİNİN TASARIMCININ YARATIM  
SÜRECİNE ETKİSİ  
THE EFFECT OF CLOTHING SIMULATION TECHNOLOGIES  
ON THE DESIGNER'S CREATIVE PROCESS**

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**ÖZET**

Teknolojinin hızlı ilerleyişi ile girilen dijital çağ, moda endüstrisinde dijital yazılım araç ve teknoloji kullanımını tasarımcı için ön koşul haline getirmiştir. Zaman ve mekan kavramını ortadan kaldıran dijitalleşme süreci, tasarım anlayışı ve yaklaşımları, sunum ve gerçekleştirilme biçimlerinin yeniden gözden geçirilmesine neden olmuştur. Sanal modelleme ve simülasyonlar aracılığıyla tasarlanan giysiler, vücut tarama teknolojisi kullanılarak 3B yazıcılarla beden ölçüsüne göre üretilmekte, avatlara giydirilip sanal mekanlarda sergilenmektedir. Giysilerin fiziksel örneklemeleri yapılmadan, üretim öncesinde kullanıcı seçkisi tahlil edilmekte, stoklu üretim yapma zorunluluğu ortadan kalkmaktadır. Çevrimiçi markalar ve perakendeciler, kitlelere ulaşmak amacıyla oluşturdukları dijital platformlarla, fiziksel mağazaları ziyaret etme gereksinimini azaltmaktadır.

Nitel araştırma yöntemi ile yapılan bu çalışmada, “teknoloji kullanımının yaratım sürecine etkisi” sorgulanarak, faydaları, sınırlamaları ve tasarımcının yaratıcı rolü açısından nasıl konumlandırıldığı, günümüz giysi tasarımı alanına ilişkin örneklerle incelenerek analiz edilmiş ve değerlendirilmiştir. Araştırma sürecinde literatür taramasının yanı sıra, tasarımcı deneyimlerinden faydalanılmış; çalışma kapsamında öncelikle konuya ilişkin mesleki terminolojiye değinilerek, yaratım sürecinde tasarımı oluşturan faktörler tanımlanmaya çalışılmıştır.

Bu çalışma ile giysi simülasyon teknolojilerinin kullanımının, tasarlama sürecinde tasarımcının yaratıcılığını destekleyen ve zenginleştiren bir unsur olduğu; süreçlerin hızlandırılması ve verimliliğin artırılması, fiziksel uygulama gereksinimini azaltması, maliyet, zaman ve kaynak tasarrufu ile sürdürülebilirliğe katkı sağlaması, uluslararası iş birlikleri ve kültürel etkileşimler aracılığıyla yenilikçi çözümler geliştirilebileceği sonucuna ulaşılmıştır. Özellikle tasarım süreçlerini destekleyen teknolojilerin temel tasarım eğitimi, estetik ve fonksiyonel anlayış, eleştirel düşünme, problem çözme ve zaman yönetimi konularında güçlü bir eğitim alt yapısına sahip tasarımcılar tarafından kullanılmasının, tasarımcı ile şekillenen yaratıcı süreçlerde yenilikçi fikirlerin geliştirilmesinde beklenen düzeyde katkı sağlayacağı kanaatine varılmıştır.

**Anahtar Kelimeler:** Giysi Tasarımı, Dijital Teknolojiler, Yaratıcılık, Sürdürülebilirlik.

**ABSTRACT**

The digital age that has entered with the rapid advancement of technology has made the use of digital software tools and technology a prerequisite for designers in the fashion industry. The digitalization process, which eliminates the concept of time and space, has caused the reconsideration of design understanding and approaches, presentation and realization methods. Clothes designed through virtual modeling and simulations are produced according to body measurements with 3D printers using body scanning technology, put on avatars and exhibited in virtual spaces. Without physical sampling of clothes, user selection is analyzed before

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production, eliminating the need to make stocked production. Online brands and retailers reduce the need to visit physical stores with the digital platforms they create in order to reach the masses.

In this study conducted with the qualitative research method, the “effect of technology use on the creation process” was questioned, its benefits, limitations and how the designer is positioned in terms of creative role were examined, analyzed and evaluated with examples from today's clothing design field. In addition to literature review, designer experiences were utilized in the research process; within the scope of the study, the factors that constitute design in the creation process were tried to be defined by first touching on the professional terminology related to the subject.

This study has concluded that the use of clothing simulation technologies is an element that supports and enriches the creativity of the designer in the design process; that processes can be accelerated and efficiency can be increased, that it reduces the need for physical application, that it contributes to sustainability by saving costs, time and resources, and that innovative solutions can be developed through international collaborations and cultural interactions. It has been concluded that the use of technologies that support design processes, especially by designers who have a strong educational background in basic design education, aesthetic and functional understanding, critical thinking, problem solving and time management, will contribute to the expected level in the development of innovative ideas in creative processes shaped by the designer.

**Keywords:** Clothing Design, Digital Technologies, Creativity, Sustainability.



**ÖĞRETMENLERİN UZAKTAN EĞİTİM İLE İLGİLİ GÖRÜŞLERİ**  
**TEACHERS' OPINIONS ABOUT DISTANCE EDUCATION**

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**ÖZET**

Araştırmanın amacı, öğretmenlerin uzaktan eğitim ile ilgili görüşlerini kapsamlı bir şekilde incelemektir. Bu amaç doğrultusunda araştırmada nicel yöntem takip edilmiş olup, ilişkisel tarama modeli kullanılmıştır. Araştırmanın örneklem grubu 384 öğretmenden oluşmaktadır. Ölçek yardımıyla toplanan veriler çeşitli istatistiksel yöntemler kullanılarak analiz edilmiştir. Yapılan analiz sonucunda uzaktan eğitim sürecine dair katılımcıların genel anlamda benzer algılara sahip olduğu belirlenmiştir. Özellikle "Uzaktan Eğitimde Yaşanan Genel Sıkıntılar" alt boyutu ortalamalarının yüksek olduğu yönünde tespit edilen sonuç, katılımcıların uzaktan eğitim sürecinde önemli zorluklar yaşadığını göstermektedir. Bununla birlikte uzaktan eğitimin olumlu yanlarıyla ilgili de düşük ortalamalar tespit edilmiş olup, bu durum katılımcıların uzaktan eğitimin olumsuz yönlerinin daha fazla olduğuna inandıklarını ortaya koymaktadır. Ayrıca "Uzaktan Eğitimde Esneklik ve Teknolojinin Kullanımı" alt boyutunun düşük olması, sürecin esneklik ve teknoloji kullanımını açısından yetersiz kaldığını göstermektedir. Katılımcıların tanımlayıcı özelliklerinin uzaktan eğitime ilişkin görüşlerinde yalnızca cinsiyet özelliğine göre anlamlı farklılık tespit edilmiş; medeni durum, yaş, kurumda çalışma süresi, mesleki kıdem ve branş özelliğine göre anlamlı farklılıklara rastlanmadığı görülmüştür.

**Anahtar kelimeler:** Öğretmenler, uzaktan eğitim, öğretmen görüşleri.

**ABSTRACT**

The aim of the study was to analyze teachers' opinions about distance education. to examine their views comprehensively. For this purpose The quantitative method was followed in the research and the relational survey model was used. The sample group of the study consists of 384 teachers. Scale The data collected with the help of the data analyzed using various statistical methods was analyzed. As a result of the analysis, it was concluded that the distance education process It was determined that the participants had similar perceptions in general. Especially the sub-dimension "General Problems Experienced in Distance Education" the result determined that the participants' averages were high. The findings show that they experience significant difficulties in the distance education process. However low averages were also found for the positive aspects of distance education and this situation indicates that the negative aspects of distance education are more in distance education. In addition, "Distance Education Flexibility and Use of Technology" sub-dimension is low, the process flexibility and use of technology. Participants descriptive characteristics of distance education

in their views on distance education only A significant difference was found according to gender; marital status, age, significant according to the duration of working in the institution, professional seniority and branch differences were not observed.

**Keywords:** Teachers, distance education, teacher opinions.

## MİYOPİZM VE ÖRGÜTSEL ÇATIŞMA ARASINDAKİ İLİŞKİNİN İNCELENMESİ

Fidan ALHAS<sup>1</sup>

### ÖZET

Miyopizm, kurumdaki çalışanların normal zamanlarda kendisine tanınan imkânlardan faydalanamaması, bu imkânları görmekten çok uzak olmaları ve sadece kurumdaki faaliyetleri devam ettirmek için çabalamaları olarak ifade edilebilir. Örgütsel çatışma ise, kurumdaki çalışanların sahip oldukları inanç, düşünce ve görüş ayrılıkları sebebiyle oluşan ve yanlış anlaşılmalardan dolayı ortaya çıkan bir çatışma türü olarak ifade edilebilir. Miyopizm ve örgütsel çatışma arasındaki ilişkinin incelenmesi bu araştırmanın konusunu oluşturmaktadır. Çarpıklık, ortalama, basıklık, standart sapma, keşfedici ve doğrulayıcı faktör, korelasyon ve çoklu regresyon analizleri bu araştırmadaki analizleri yapabilmek için kullanılmıştır. Araştırmada kolayda örneklem yönteminden faydalanılmıştır. Araştırmanın sonucunda ise; bireysel boyut ile bütünleştirme, hükmetme, kaçınma, uzlaşma ve ödün verme arasında pozitif ilişki olduğu tespit edilmiştir. İşi rutinlik düzeyi boyutu ile bütünleştirme ve kaçınma arasında pozitif ilişki olduğu tespit edilmişken hükmetme, ödün verme ve uzlaşma arasında herhangi bir ilişki olduğu tespit edilememiştir. Örgütsel boyut ile kaçınma, bütünleştirme, hükmetme ve uzlaşma arasında pozitif ilişki olduğu tespit edilmişken ödün verme arasında herhangi bir ilişki olduğu tespit edilememiştir. Sektörel boyut ile bütünleştirme, kaçınma, uzlaşma ve ödün verme arasında pozitif ilişki olduğu tespit edilmişken hükmetme ile arasında herhangi bir ilişki olduğu tespit edilememiştir. Ayrıca genel miyopizm ve genel örgütsel çatışma arasında pozitif ilişki olduğu tespit edilmiştir. Araştırmada miyopizm ve örgütsel çatışma arttırılmasına yönelik önerilerde bulunulmuştur.

**Anahtar Kelimeler:** Miyopizm, Örgütsel Çatışma, Kars Devlet Su İşleri, Yöneticiler ve Memurlar.

### ABSTRACT

Myopism can be expressed as the inability of employees in the institution to benefit from the opportunities given to them in normal times, being far from seeing these opportunities and trying only to continue the activities in the institution. Organizational conflict can be expressed as a type of conflict that arises due to misunderstandings and beliefs, thoughts and differences of opinion of the personnels in the institution. Examining the relationship between myopism and organizational conflict is the issue of this investigation. Skewness, mean, kurtosis, standard deviation, exploratory and confirmatory factor analysis, correlation analysis and multiple regression analyzes were used to perform the analyzes in this investigation. Convenience sampling method was used in the investigation. As a result of the investigation; it has been defined that there is a positive relationship between the individual dimension and integration, domination, compromise, avoidance and compromise. While it was defined that there was a positive relationship between the job routineness dimension and integration and avoidance, no relationship was found between compromising, dominating and compromising. While it was defined that there was a positive relationship between the organizational dimension and integration, domination, avoidance and compromise, no relationship was found between compromising. While it was defined that there was a positive relationship between the sectoral dimension and integration, compromise, avoidance and compromise, no relationship was found

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between domination. In addition to, a positive relationship was found between general myopism and general organizational conflict. Advices were made in the investigation to increase myopism and organizational conflict.

**Keywords:** Miyopizm, Organizational Conflict, Kars State Hydraulic Works, Managers and Civil Servants.

## HARMONIZATION OF LEGAL POSITIVISM, LEGAL REALISM, AND NATURAL LAW IN THE CONTEMPORARY DEMOCRATIC COMMON LAW SYSTEM

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### Abstract

The debate behind the definition of “*What is Law*” traces its roots to antiquity with different Legal Systems around the world from different time period bestowing their own theories and interpretation that explains the Legal System of their society. This paper tries to apply resultant theories of such benefaction to the modern Common Law Systems that contends with antithetical nature of Sovereign made Positive Laws being in simultaneous operation with Precedential Laws, often deriving their roots from the principles of Natural Law vis-à-vis the compromise made between the two to ensure ends of Justice in the society of its operation by Legal Realism; and the acknowledgement of Natural Law by the Positive Law through Precedential Implementation into Legislation and Sovereign being governed in its conduct by the sanction-less rules defining acceptable behaviour of the society.

The paper explores the interplay of these different theories in a contemporary Common Law System to derive the points of Union and Intersection between them; and explore whether such points of Union have held true in all present and previous legal systems around the world to arrive at a point of fundamental agreeance that acts as the Grundnorm underpinning the Legal Systems around the world.

The paper further explores the implications of the rigid definition provided by reductivist Positive approach to define Law as the gospel of the Sovereign in the context of democracies wherein the Sovereign is directly or indirectly accountable to the citizens being governed pursuant to the Social Contract between the State and the Subjects rather than being answerable to none. It argues that classical definition does not suffice to explain “*What is Law*” but rather a constructive approach between the theories is needed to minimize points of intersection if not completely defining “*What is Law*” in contemporary Democratic Common Law System.

**Keywords:** Sovereign, Ancient, Positivism, Natural-Law, Common-Law, Precedent

**VR AND EDUTAINMENT FOR CULTURAL HERITAGE, ARCHITECTURE AND  
URBAN PLANNING INTERPRETATION & TOURISM PROMOTION**

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**Abstract**

In the last two decades, the digital age of Information and Communication Technologies (ICT) development and concerns combined with rapid technology have allowed the dissemination of different digital applications, including 3D digital documentation, Virtual Reconstruction & Recreation Virtual reality (VR), augmented reality (AR), mixed reality (MR), Digital gaming, holograms, etc.).

VR is more than just a visual experience; it's an immersive journey. In contemporary terms, it typically involves head-mounted devices (HMDs) that create a simulated environment by blocking out the physical world. This computer simulation gives users the illusion of being physically present in the world. It relies not only on sight but also uses sound and touch to engage the user fully in the virtual world. Educational VR games have been developed for all levels of education. They present the content to be taught as a series of entertaining challenges for the learner in a virtual environment. It performs tasks similar to real-world tasks. It allows learning in environments that may be dangerous for learners or using expensive devices in a virtual but realistic world. This immersive nature of VR, where learners can fully engage with the virtual world through multiple senses, is a powerful tool in fields such as cultural heritage, architecture, and urban planning, where understanding and experiencing the environment is vital.

This paper attempts to present an overview of VR through digital gaming in the cultural heritage and architectural domain as an edutainment approach of our digital age. It presents case studies about the implementation of AR in architecture, urban planning, and cultural heritage fields. It explores the potential benefits of location-based digital technologies in fostering a sense of space and community among residents.

**Keywords:** Cultural heritage, Urban planning, Architecture, Local communities, Digital gaming.

**THE ROLE OF INFORMATION SYSTEMS IN THE CREATION AND USE OF ELECTRONIC PROCUREMENT PLATFORM IN THE REPUBLIC OF KOSOVO**

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**Abstract**

The implementation of e-procurement in the Republic of Kosovo started in 2012, as if the goals, developments and implementation of e-procurement in the Republic of Kosovo were not fully realized. Electronic procurement is not an electronic system only for the publication of public procurement results but is a reflection of a defined legal process on the implementation of procurement procedures. Data of all claims are presented on the Internet, also through the Internet can be sent to all offers.

Research: Through the management system throughout the procurement process electronically it will be possible to maintain the technical and financial evaluation of bids. So, presenting this process in a transparent way increases the reliability and efficiency.

Manner: Also through the management system of this process, according to the rights defined by law, each party can see the grievance process and remotely via the Internet. Implementing e-procurement will enable the removal of barriers presented earlier, increasing the confidence of all parties involved. Access will be given to all interested parties allowing access to the law, while in case of restrictions electronic identification (e-ID) should be used.

Result: The categorization of approaches will be for each separately, including the contracting authority, contractors, bidders, complainants, representatives of budget units, auditors and other categories defined by applicable laws. Information security in e-procurement will be maximal. As with any other service, access to e-procurement will be provided through the state portal.

**Keywords:** E-procurement, digital software, public procurement, procedures, economic costs, information systems management, etc.

## XV VE XVI. YÜZYILLARDA ÇELTİK ÜRETİMİ YAPILAN BİR OSMANLI ŞEHİRİ: TIRHALA\*

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1385 tarihinde Osmanlı hâkimiyetine giren Teselya bölgesi, I Bayezid zamanında Tırhala Sancağı olarak teşkilatlandırılmıştır. Tırhala, Fenar ve Ağrafa olarak üç ana vilayete ayrılan bölge, çok sayıda nahiye ve köyü de bünyesinde barındırmaktadır. Çeşitli tarım ürünleri yetiştirilebilen bölgede çeltik üretimi de önemli bir yer tutmaktadır. Çeltik bitkisi, ziraatı oldukça zor ve emek isteyen, iklim ve toprak seçiciliği yüksek, diğer tahıllara oranla daha pahalı ve lüks tüketim maddeleri arasında gösterilen, son derece zahmetli bir bitkidir. Bu zahmeti dolayısıyla çeltik üretimi yapan köylülere, bazı kolaylıklar da sağlayan, çeltik-reaya statüsü verilmiştir. Bu araştırma makalesinde Tırhala’da çeltik üretimine dair bazı sorulara yanıt aranmaya çalışılmıştır. Mesela XV-XVI. yüzyılları kapsayan farklı tarihlerde Tırhala’da kaç adet çeltikçi ve çeltikçi reisi vardı? Bunlar Müslim veya gayri Müslim miydi? Evli veya bekâr mıydılar? Çeltikçilerin vergileri ne kadardı? Çeltik üretimi hangi köylerde ve hangi nehirlerde yapılabilmekteydi? Balkanlarda bu tarihlerde başka pek çok sancakta çeltik üretimi yapılmaktaydı. Lakin Tırhala Sancağı’nda bulunan çeltikçiler ve çeltik üretimi üzerine çok fazla çalışma yapılmamıştır. Buna kaşın arşiv belgeleri buna fırsat sunacak kadar zengindir. Tırhala Sancağı, pirinç üretimi açısından diğer balkan şehirlerinde uygulanan pek çok farklı örneği veya çeşidi bir arada görebileceğimiz nadide şehirlerden bir tanesidir. Tırhala Sancağı’ndaki çeltikçilerin sosyal, ekonomik ve idari durumlarının ortaya konulmasının, bu alandaki mevcut bilgilere katkı sağlayacağı düşünülmektedir.

**Anahtar Kelimeler:** Çeltikçi, Pirinç, Tırhala, Balkanlar, Osmanlı

## AN OTTOMAN CITY WHERE PADDY PRODUCTION WAS MADE IN THE 15<sup>th</sup> AND 16<sup>th</sup> CENTURIES: TIRHALA

The Thessaly region, which came under Ottoman rule in 1385, was organized as Tırhala Sanjak during the reign of Bayezid I. The region, which is divided into three main provinces as Tırhala, Fenar and Ağrafa, also includes many townships and villages. Paddy production also has an important place in the region, where various agricultural products can be grown. Paddy plant is an extremely demanding plant whose cultivation is very difficult and labor-intensive, has high climate and soil selectivity, is more expensive than other grains, and is considered a luxury consumer item. Due to this effort, the villagers who produce paddy have been given paddy-reaya status, which also provides some conveniences. In this research article, we tried to find answers to some questions about paddy production in Tırhala. For example, how many paddy farmers and paddy farmers' chiefs were there in Tırhala at

\* Bu makale, Prof. Dr. Orhan Kılıç’ın danışmanlığında Fırat Üniversitesi, Sosyal Bilimler Enstitüsü Yeniçağ Tarihi Bilim Dalı’da Havva Merve Seyhan tarafından hazırlanan “Üretimden Tüketime Balkanlarda Çeltik (XV-XVII. Yüzyıllar)” adlı tezdeki bilgilerden üretilmiştir



different dates covering the 15<sup>th</sup> and 16<sup>th</sup> centuries? Were they Muslims or non-Muslims? Were they married or single? How much were the paddy farmers' taxes? In which villages and on which rivers can paddy production be done? At that time, paddy was produced in many other sanjaks in the Balkans. However, not much work has been done on paddy farmers and paddy production in Tırhala Sanjak. However, archive documents are rich enough to provide an opportunity for this. Tırhala Sanjak is one of the rare cities where we can see many different examples or varieties applied in other Balkan cities in terms of paddy production. It is thought that revealing the social, economic and administrative situations of paddy farmers in Tırhala Sanjak will contribute to the existing knowledge in this field

**Key Words:** Paddy farmer, Rice, Tırhala, Balkans, Ottoman

## İSLÂMÎ VE KONVANSİYONEL ŞİRKETLERİN KARŞILAŞTIRILMASI COMPARİSON OF ISLAMIC AND CONVENTIONAL COMPANIES

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### ÖZET

Bu bildirinin amacı iş dünyasına İslâmî ekonomik yaklaşım hakkında bilgi sağlamak ve farkındalık oluşturmaktır. Globalleşen iş dünyasında, şirketler faaliyetlerini finansal ve etik kurallara göre sürdürmektedirler. İslâmî ve konvansiyonel şirketler bağlı oldukları kurallar bağlamında birbirleri ile benzerliklerinin yanı sıra çok önemli farklılıkları da bulunmaktadır. İslâmî ve konvansiyonel şirketlerin temel özellikleri, finansal yapıları, faaliyet alanları, yatırım kriterleri, sosyal bağlamda şirket politikaları gibi alanlarda benzerlik ve farklılıkları ayrıntılı olarak incelenerek karşılaştırma yapılacaktır.

Bu çalışmada kullanılan materyaller ve yöntemler şunlardır:

1. Literatür Taraması: İslâmî ve konvansiyonel şirketlerle ilgili akademik makaleler, kitaplar, raporlar ve diğer bilimsel yayınlar incelenerek teorik bir çerçeveye oluşturulacaktır.
2. Mevzuat ve Düzenlemeler: İslâmî finans ve konvansiyonel finans ile ilgili yasal düzenlemeler, ulusal ve uluslararası standartlar ortaya konularak karşılaştırma yapılacaktır.
3. Vaka Çalışmaları: İslâmî ve konvansiyonel şirketlere ait vaka incelemesi ile teorik bilgilerin pratikteki uygulamalarını analiz edilmesi amacıyla yapılacaktır.

Yapılan bu çalışmada şu sonuçlara ulaşılmıştır;

- İslâmî şirket yapıları, faiz (ribâ) yasağı, risk paylaşımı ve şeffaflık prensipleri ile, finansal istikrarı ve adaleti ön planda tutarak, kriz dönemlerinde bile daha dayanıklı ve sürdürülebilir bir ekonomik yapı sağlamaktadır.
- İslâmî şirket yapıları, toplumsal refah ve sosyal adalet konusunda etkin bir rol oynamaktadır.
- İslâmî şirket yapıları, etik ve sorumlu iş yapma kültürü ile uzun vadeli başarıyı sağlamaktadır.

Sonuç olarak, İslâmî şirket yapıları, konvansiyonel şirket yapılarına kıyasla üstünlük sağlamaktadır. Konvansiyonel şirket yapıların da İslâmî şirketlerin bu güçlü yönlerinden faydalanarak kendini yenilemesi ve geliştirmesi mümkündür.

**Anahtar Kelimeler** İslâmî Finans, İslâmî Şirket, Konvansiyonel Şirket

### ABSTRACT

The purpose of this report is to provide information and raise awareness about the İslâmî economic approach to the business world. In the globalizing business world, companies continue their activities according to financial and ethical rules. İslâmî and conventional companies have similarities as well as very important differences in the context of the rules they are bound to. The basic characteristics of İslâmî and conventional companies, their

financial structures, fields of activity, investment criteria, and company policies in the social context will be examined in detail and their similarities and differences will be compared.

The materials and methods used in this study are as follows

1. Literature Review: A theoretical framework will be created by examining academic articles, books, reports and other scientific publications related to İslâmîc and conventional companies.
2. Legislation and Regulations: Legal regulations, national and international standards related to İslâmîc finance and conventional finance will be presented and compared.
3. Case Studies: A case study of İslâmîc and conventional companies will be conducted to analyze the practical applications of theoretical knowledge.

In this study, the following conclusions were reached;

- İslâmîc corporate structures, with the principles of interest (ribâ) prohibition, risk sharing and transparency, prioritize financial stability and justice, and provide a more durable and sustainable economic structure even in times of crisis.
- İslâmîc corporate structures play an active role in social welfare and social justice.
- İslâmîc corporate structures ensure long-term success with an ethical and responsible business culture.

As a result, İslâmîc corporate structures provide superiority over conventional corporate structures. Conventional corporate structures can also renew and develop themselves by benefiting from these strengths of İslâmîc companies.

**Keywords: İslâmîc Finance, İslâmîc Company, Conventional Company**

**FEN BİLGİSİ ÖĞRETMEN ADAYLARININ SANAL GEZİ DENEYİMLERİ:  
BİLİM MERKEZİ ÖRNEĞİ**  
VIRTUAL SCIENCE CENTER EXPERIENCES OF SCIENCE TEACHER CANDIDATES

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**ÖZET**

Pandemi sonrası yaşanan değişiklikler uzaktan eğitimin kullanım alanlarında çeşitlilikler meydana getirmiştir. Bu değişimlerden bir de sanal bilim merkezleri ve bu merkezlerin online olarak gezilebilmesidir. Bu kapsamda ilgili çalışmanın temel amacı fen bilgisi öğretmen adaylarının bilim merkezine ilişkin sanal gezi deneyimlerini incelemektir. Bu kapsamda nitel bir çalışma yürütülmüştür. Çalışma deseni nitel araştırma yöntemi desenlerinden olgubilim desendir. Araştırma örnekleme iç Anadolu bölgesinin bir ilinde bulunan bir üniversitede öğrenim gören altı fen bilimleri öğretmen adayıdır. Bu kapsamda amaçlı örneklem türlerinden ölçüt örnekleme kullanılmıştır. Çalışmanın veri toplama aracı yarı yapılandırılmış görüşme formudur. Çalışmanın iç geçerliğinin sağlanması amacıyla görüşme soruları alanında uzman kişilere kontrol ettirilmiştir. Görüşmelerden elde edilen verilere doğrudan alıntılar halinde bulgular bölümünde yer verilmiştir. Elde edilen görüşme verileri analiz edilmeden önce transkript edilerek yazılı doküman haline getirilmiştir. Katılımcılarla gerçekleştirilen görüşmelerden elde edilen kavramlar benzerlik ve farklılıklarına göre gruplandırılacak ve benzer kodlar bir araya getirilerek kategori ve temalar oluşturulmuş ve tablolar halinde bulgular bölümünde sunulmuştur. Araştırma sonuçları katılımcıların sanal bilim merkezlerini “online ortam” ve “ulaşılabilir” olarak tanımladıkları görülmüştür. Bununla birlikte katılımcılar sanal bilim merkezlerinin öğretmen ve öğrencilere kolaylık sağladığı, soyut kavramları somutlaştırmayı sağladığı ve etkili bir araç olarak kullanılabileceğini ifade etmişlerdir. Ayrıca bazı katılımcılar somut yaşantı sunmaması ve yaparak yaşayarak öğrenme imkanının bulunmamasını sanal bilim merkezlerinin olumsuz yönü olarak değerlendirdiği görülmüştür. Son olarak katılımcılar yüz yüze bilim merkezi gezisini, sanal bilim merkezi gezisine tercih etmişlerdir.

**Anahtar kelimeler:** *Sanal gezi, Bilim merkezi, fenomenoloji*

**ABSTRACT**

Changes after the pandemic have created diversity in the areas of use of distance education. One of these changes is virtual science centers and the ability to visit these centers online. In this context, the main purpose of the relevant study is to examine the virtual tour experiences of science teacher candidates regarding the science center. In this context, a qualitative study was conducted. The study design is a phenomenology design, one of the qualitative research method designs. The research sample is six science teacher candidates studying at a university in a province of the Central Anatolia region. In this context, criterion sampling, one of the purposeful sampling types, was used. The data collection tool of the study is a semi-structured

interview form. In order to ensure the internal validity of the study, the interview questions were checked by experts in the field. The data obtained from the interviews are included in the findings section as direct quotations. The obtained interview data were transcribed and turned into a written document before analysis. Concepts obtained from the interviews with the participants will be grouped according to their similarities and differences, and similar codes are brought together to create categories and themes and are presented in tables in the findings section. Research results showed that participants defined virtual science centers as "online environment" and "accessible". However, participants stated that virtual science centers provide convenience to teachers and students, enable them to concretize abstract concepts, and can be used as an effective tool. In addition, it was observed that some participants considered the lack of concrete experience and the lack of opportunity to learn by doing as negative aspects of virtual science centers. Finally, participants preferred the face-to-face science center tour over the virtual science center tour.

**Key words:** *Virtual tour, Science center, phenomenology*

**CONTRIBUTIONS OF A VIRTUAL EXCHANGE PROGRAM TO CREATIVE THINKING SKILLS OF A PRE-SERVICE EFL TEACHER: AN AUTOETHNOGRAPHIC STUDY**

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**ABSTRACT**

Virtual exchanges provide an online space where participants can learn about other cultures, traditions, and languages. The International Virtual Exchange Project (IVEProject) is one of those virtual exchange examples, and it offers two eight-week annual exchanges where English is used as a lingua franca. The project has been connecting thousands of students from various countries and educational backgrounds through both asynchronous forums and synchronous meetings on online platforms such as Zoom and Microsoft Teams. Through these asynchronous forums and weekly synchronous meetings, participating students find opportunities to interact with peers from different parts of the world. Within this frame, this study aimed to examine the impact of the IVEProject on the creative thinking skills of a pre-service EFL (English as a Foreign Language) teacher who participated in four iterations of the IVEProject. Autoethnographic approach through a dialogic framework was used to conduct the study. Centered on deductive reasoning, autoethnographic anecdotes were presented for five themes: creative thinkers are communicators, open-minded, risk-takers, knowledgeable, and flexible. The findings of the study showed that the IVEProject plays an important role in enhancing a future English language teacher's creative thinking skills thanks to its variety of forums and activities facilitating creative thinking skills directly or indirectly.

**Keywords:** Virtual Exchange, Autoethnography, The IVEProject, Creative Thinking Skills, Pre-service EFL Teachers

ŞEMÂİL LİTERATÜRÜ VE KAFFÂL EŞ-ŞÂŞÎ'NİN ŞEMÂİLÜ'N-NÜBÜVVE ADLI ESERİ

THE LITERATURE OF SHAMĀ'IL AND THE WORK SHAMĀ'IL AL-NUBUWWAH  
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ÖZET

Müjdeci, uyarıcı ve üsve-i hasene olarak gönderilen Resûl-i Ekrem'in (s.a.s.) fizikî ve ahlâkî özelliklerini ele alan çeşitli eserler kaleme alınmıştır. İlk dönemlerde hadis külliyatının "sıfâtü'n-nebî, menâkıb, fezâil" gibi başlıkları altında dağınık şekilde yer alan bu bilgiler, zamanla "şemâil" adıyla müstakil bir hadis literatürüne dönüşmüştür. Söyleyeni tanımanın, söylenenin anlaşılmasını kolaylaştırdığı gerçeği, bu edebiyatın oluşmasında ve gelişmesinde önemli bir rol oynamıştır. Hadis ilminin altın çağı olarak kabul edilen *Kütüb-i Sitte* döneminde Tirmizî tarafından eş-Şemâ'ilü'n-nebeviyye adıyla bu türün ilk örneği verilmiştir. Bu ilk örnek, şemâil edebiyatının zirvesi olmuş ve daha sonra bu sahada kaleme alınmış eserleri gölgede bırakmıştır. Bu çalışmada, gölgede kaldığını düşündüğümüz ve Şâfiî mezhebinin Mâverâünnehir bölgesinde yayılmasına büyük katkı sağlayan; fakih, muhaddis, müfessir, mütekellim ve edip olarak tanınan, el-Kaffâl lakaplı ve eş-Şâşî (Taşkent) nisbesiyle maruf, Ebû Bekr Muhammed b. Alî b. İsmâil (ö. 365/976) tarafından kaleme alınan *Şemâilü'n-nübüvve* adlı eseri genel hatlarıyla tanıtmıştır. Kaffâl'ın hadis literatüründe adı bilinmeyen ve ilim ehline tanıtmayı amaçladığımız bu eserin bilinen tek yazma nüshası, Milli Kütüphane'nin Samsun İl Halk Kütüphanesi koleksiyonunda (55 hk. 950/2, istinsah tarihi 588/1192) kayıtlıdır. Eserde, Hz. Peygamber'in doğduğu yıl, risaleti, yaşı, fizikî yapısı hakkında ayrıntılı bilgi verilmiş ve onun her bir uzvu için ayrı başlıklar oluşturulmuştur. Özellikle Resûlullah'ın kullandığı şahsî eşyalar ve harp aletleri için detaylı bilgiler aktarılmıştır. Yüze yakın başlık altında büyük bölümü fiilî hadis sîgasıyla gelen 766 rivayet, senedli olarak nakledilmiştir. Her ne kadar rivayetler senedli olarak zikredilse de farklı disiplinlerden yararlanarak metin merkezli bir çalışma yapılmıştır. Temel hadis kaynakları ile birlikte tarih ve tabakat eserlerinden istifade edilmiş, konu ile ilgili şiirler zikredilerek bilginin doğru bir şekilde inşa edilmesine çalışılmıştır. **Anahtar kelimeler:** Hadis, *Şemâilü'n-Nübüvve*, Şemâil Literatürü, Kaffâl eş-Şâşî.

ABSTRACT

Works discussing the physical and moral characteristics of the Messenger of Allah (pbuh), who was sent as a bringer of good news, a warner, and an excellent model, have been penned. In the early periods, these characteristics were scattered under the headings of "şifât al-nabî, manâqib, faḍā'il" in hadith compilations but eventually evolved into an independent hadith literature under the name "shamā'il." The fact that knowing the speaker makes it easier to understand what is being said has played an important role in the formation and development of this literature. During the period of *Kutub-i Sitte*, considered the golden age of hadith science, Tirmidhī produced the first example of this genre under the name al-Shamā'il al-Nabawiyya. This first example was the pinnacle of shamail literature and overshadowed the works written in this field later. In this study, we think that it is overshadowed; A jurist, hadith scholar, commentator, mutakallim and literary scholar who made a great contribution to the spread of the Shafi'i school in the Transoxiana region; known by the titles of al-Kaffal and al-Shashi (Tashkent), Abu Bakr Muhammad b. Ali b. Ismail (d. 365/976) He has a work called Shamā'il

al-Nubuwwa written in his pen. The only known manuscript of this work of Kaffâl, whose name is unknown in the hadith literature and which we aim to introduce to science students, is registered in the Samsun Provincial Public Library (55 hk. 950/2, copy date 588/1192). The work provides detailed information about the year of the Prophet's birth, his prophethood, age, physical structure, and creates separate headings for each of his limbs. Detailed information is given especially about the personal belongings and war equipment used by the Messenger of Allah. Under nearly a hundred headings, 766 narrations, mostly conveyed in the form of active hadith, are transmitted with their chains of narration. Although the narrations are mentioned with their chains of narration, a text-centered study was conducted using different disciplines. Basic hadith sources, as well as historical and biographical works, were utilized, and poems related to the topic were mentioned to construct information accurately.

**Keywords:** Hadith, *Shamā'il al-Nubuwwa*, Shamā'il Literature, Kaffâl al-Shāshī.



## NECESSITY AND METHODOLOGICAL PECULIARITIES OF STEM PROJECTS IMPLEMENTATION IN THE SOLAR ENERGY SECTOR

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### **Annotation.**

In the modern world there is a rapid development of technology and science, which requires the training of highly qualified specialists in the field of natural sciences, technology, engineering and mathematics (STEM). One of the most relevant topics is the development of renewable energy sources, particularly solar energy. Solar energy offers not only an important direction for achieving the Sustainable Development Goals, but also a unique opportunity to combine knowledge from different STEM fields. This article discusses the study and development of methodological approaches to the realization of educational projects related to solar energy. The study created a power plant generating energy using solar panels focused on solar energy, demonstrating the practical application of STEM methods in the field of renewable energy. The paper focuses on the main methodological features such as integration of interdisciplinary knowledge, use of modern technology and project-oriented learning. It is found that the successful implementation of STEM projects in the process of setting up a pilot plant requires the integration of theoretical and practical aspects as well as the active use of digital tools for modeling and simulation. The results of the study emphasize the importance of the project approach in educational practice and show how the integration of STEM components contributes to the development of innovative solar energy solutions and the training of future professionals. The purpose of this study is to determine the necessity and methodological features of implementing STEM projects in the field of solar energy. The study used keyword system analysis methods, constructive methods in research, and modeling methods for articles published in highly rated journals. *This research has been/was/is funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant No. AP23488947)*

**Keywords:** STEM education, STEM Project, solar energy, sustainable development, practical application.

**CLIMATE CHANGE IMPACTS AND REDD+ STRATEGIES; A COMPREHENSIVE ANALYSIS OF LAND USE CHANGE IN BANGLADESH**

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**ABSTRACT**

Bangladesh, with its rich and diverse forest ecosystems, faces pressing challenges from climate change exacerbated by land use changes. This study investigates the multifaceted impacts of climate change on Bangladesh's forests, biodiversity, and the socio-economic conditions of communities reliant on these ecosystems. By analyzing the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) framework, the paper evaluates its potential as a climate mitigation strategy and a mechanism for promoting sustainable forest management. It also critically examines the hurdles to REDD+ implementation in Bangladesh, including governance issues, policy gaps, and the necessity for effective stakeholder engagement. Through a comprehensive review of existing literature, policy documents, and stakeholder interviews, the study provides insights into the practical challenges and opportunities associated with REDD+ in the context of Bangladesh's unique environmental and socio-political landscape. Enhancing the resilience of forest-dependent communities to climate change requires an integrative approach that addresses both environmental and socio-economic dimensions. This research identifies key factors influencing the success of REDD+ projects, such as the effectiveness of local governance, the role of indigenous knowledge, and the capacity-building needs of stakeholders. Additionally, it explores the interplay between national policies and international commitments, highlighting the importance of coherent and inclusive policy frameworks. The study underscores the critical need for adaptive management practices and continuous monitoring to ensure the long-term sustainability of REDD+ initiatives. By providing a nuanced understanding of the complexities involved, this paper contributes to the ongoing discourse on climate adaptation and forest conservation in Bangladesh, offering practical recommendations for policymakers, practitioners, and researchers engaged in similar contexts globally.

**Keywords:** Climate Change, REDD+, Land Use, Forests, Sustainable Management, Governance.

## İSLAM'IN ÖZGÜRLEŞTİRMEYE DÖNÜK UYGULAMALARI ISLAM'S LIBERATING PRACTICES

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### ÖZET

Köleliğin bahane edilerek insanların amansızca sömürüldüğü bir ortamda inen Kur'an, öncelikle kölelere insanca nasıl muamele edilmesi gerektiğine, peşisıra kölelerin nasıl özgürleştirileceğine dikkatleri çekmiştir. Böylelikle köleliği yaygınlaştırmanın önünü tıkamış, aşamalı bir şekilde insanları özgürleşmeye götürecek bir çığır açmıştır. İnsanı bir mal olarak kabul eden ve sahibinin istediği zaman onu satabileceği bir meta gibi gören anlayışa karşı son derece net bir duruş sergilemiş ve insanlık onurunu inciten bu uygulamaya dur demiştir.

Bilindiği üzere Kur'an'ın nazil olduğu çağda kölelik, dünyanın her yerinde yaygın bir şekilde varlığını devam ettirmekteydi. Eski Yunan'da, Roma'da, Mısır'da, İsrail ve Babil'de kölelerin sayısı hayli çoktu. Köle, bir mal sayılır, toprağa bağlı olarak gayri menkulle birlikte satılabilirdi. Köleliğin en büyük kaynağını savaşta esir düşen kimseler oluşturmaktaydı. Ancak köleliğin tek kaynağı savaşlar değildi. Bunun yanında borcunu ödemeyen kimse, borç verenin kölesi yapılırdı. Kumarda kaybeden de köle durumuna düşerdi. Kölenin çocuğu da köle oluyordu. İslam ise Müslümanların ellerindeki harp esirlerini, şayet kendi devletleri bu esirleri İslam Devleti'nin elinden kurtarmak istemez veya bizzat bu esirler kendi fidyelerini vermezlerse, mütekaliflik esasına bağlı olarak geçici bir süre için köle yapılmalarına izin vermiştir. Ancak hemen akabinde bu kölelere, mükâtebe yoluyla hürriyetlerini kazanma yolunu ardına kadar açmıştır. Mükâtebe teklifine yanaşmayan köle sahipleri uyarılmıştır.

Köleleri İslam toplumunun öz fertleri haline getirci sebep ve amilleri hazırlamak üzere ayaklı Kur'an olarak tabir edilebilecek olan Hz. Muhammed'in köleye yediğinden yedirme, giydiğinden giydirme tarzında son derece insani uygulamaları dikkat çekmektedir. Bizzat Hz. Peygamber kendisi pek çok köle azat etmiş, örneğin Temim kabilesinden alınan savaş esirlerinin yarısını karşılıksız, diğerlerini ise fidye karşılığında serbest bırakmıştır. Gerek Kur'an'daki vurgular, gerekse Sünnet'teki uygulamalar gösteriyor ki asıl olan insanın özgürlüğünün korunmasıdır. Türü bahanelerle veya köleliği çağrıştıran uygulamalarla insanların onurlarını çiğnemek kabul edilebilecek bir durum değildir. Çalışmamız bu husustaki öğreti ve vurguların, çaba ve uygulamaların önemini ortaya koymaya yoğunlaşmakta, modern dönemdeki türevler dâhil tüm çeşitleriyle insanlık onuruna aykırı olan köleliğin ortadan kalkmasına dönük bir bakış açısı sunmaya odaklanmaktadır.

**Anahtar Kelimeler:** Tefsir, Kur'an, Hz. Muhammed, Kölelik, Özgürleştirme.

### ABSTRACT

The Qur'an, which descended in an environment where people were being exploited relentlessly under the pretext of slavery, first drew attention to how slaves should be treated humanely, and then to how slaves should be liberated. In this way, it blocked the way to increase slavery and opened a path that gradually led people to emancipation. He took a very clear stance against the understanding that considers human beings as property and a

commodity that the owner can sell whenever he wants, and put a stop to this practice that hurts human dignity.

It is well known that at the time of the Qur'an, slavery was widespread throughout the world. Slaves were numerous in ancient Greece, Rome, Egypt, Israel and Babylon. A slave was considered a commodity and could be sold together with land and real estate. The biggest source of slavery was people captured in war. However, wars were not the only source of slavery. In addition, a person who failed to pay his debt was made a slave of the lender. The loser in gambling would also become a slave. The child of a slave also would have been a slave. Islam, on the other hand, permitted captives of war in the hands of Muslims to be made slaves for a temporary period on the basis of reciprocity if their own governments were unwilling to free them from the hands of the Islamic State or if the captives themselves did not pay their own ransoms. Immediately afterwards, however, the Islamic State opened the way for these slaves to gain their freedom through mutual settlement. Slave owners who refused to accept the liberation offer were warned.

The Prophet Muhammad, who can be described as the Qur'an with feet, had a very humane practice of feeding slaves with what they ate and clothing them with what they wore, in order to prepare the reasons and means to turn slaves into full members of the Islamic society. The Prophet himself freed many slaves; for example, he freed half of the prisoners of war taken from the tribe of Temim for free and the others for ransom. Both the emphasis in the Qur'an and the practices in the Sunnah show that the main thing is the protection of human freedom. It is not acceptable to violate people's dignity with various excuses or practices that resemble slavery. Our study focuses on revealing the importance of the teachings and emphases, efforts and practices in this regard, and focuses on presenting a perspective towards the abolition of slavery, which is contrary to human dignity in all its forms, including its derivatives in the modern period.

**Keywords:** Tafsir, Quran, Prophet Muhammad, Slavery, Liberation.

## HARNESSING WIRELESS SENSOR NETWORKS FOR AGRICULTURAL INNOVATION: A TRANSFORMATIVE APPROACH TO SMART FARMING

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### Abstract

The integration of Wireless Sensor Networks (WSNs) in agriculture has emerged as a pivotal technology in the advancement of smart farming practices. This article delves into the multifaceted applications of WSNs in agriculture, highlighting their role in enhancing crop management, soil monitoring, and precision irrigation. By deploying a network of sensors that collect real-time data on environmental conditions, farmers can make informed decisions that optimize resource use and increase productivity. The article discusses the technological underpinnings of WSNs, including sensor design, network architecture, and data transmission protocols. It also explores the challenges associated with their deployment, such as energy efficiency, scalability, and data security. Furthermore, the potential of WSNs to contribute to sustainable agriculture through reduced water usage and minimized chemical inputs is examined. The conclusion emphasizes the transformative impact of WSNs on the agricultural sector, paving the way for a more efficient, responsive, and environmentally friendly farming future.

**Keywords:** Wireless Sensor Networks (WSNs), Smart Farming, Precision Agriculture, Soil Monitoring, Crop Management, Sustainable Agriculture, Data Security, Energy Efficiency, Network Architecture, Environmental Sensing.

## FARKLI İNANÇLARDA MEZARLIK PLANLAMASI; MARDİN ÖRNEĞİ

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### ÖZET

Kentsel yeşil alan sistemleri içinde kapladıkları alanlar ile önemli bir yer tutan mezarlıklar; sosyo-psikolojik, ekolojik, tarihi ve kültürel, estetik ve manevi yönden kentlere katkı sağlayan önemli fiziki dokularından biridir. Artan kentleşme açık-yeşil alanları birçok kentte kolayca yok ederken, bu değişimlerden mezarlıkların daha az etkilenmesi kentlerde yeşil alanların varlığının korunması ve sürdürülebilirliği açısından mezarlıkları daha da önemli konuma getirmektedir.

Mezarlık planlaması farklı inançlara göre değişiklik gösterebilmektedir. Müslüman mezarlıkları dini ve özel günlerde yakınlarının mezarını ziyaret etme aktivitelerinin yapıldığı anısal bir alan iken, bazı toplumlarda yakınlarının mezarını ziyaret etme dışında kent halkı için mezarlıklar kentlerin rekreasyonel bir yeşil alan sistemi gibi kabul edilirler. Bu çalışmada farklı dini inançlara sahip insanların yaşadığı ve sosyo-kültürel mirası yansıttığı Mardin kentinin mezarlıklarının fiziki planlamasının bir analizi yapılması hedeflenmektedir. Kentteki Müslüman ve Süryani mezarlıkları ele alınarak, kentteki konumları, kent yeşil alan sistemine katkıları, yapısal ve bitkisel materyal kullanımının bir analizi yapılarak, olası farklılıkların ortaya konması hedeflenmektedir. Araştırma sonucunda Müslüman Mezarlığı ile Süryani Mezarlığında yapısal ve bitkisel analizlerde benzerlikler ve farklılıklar olduğu ortaya çıkmıştır. Dini inançlara göre bazı semboller farklılık gösterirken kullanılan malzeme ve bitki benzerliği yörenin kültürüne bağlı kalmıştır. Ancak yapılan analiz sonuçlarında farkların ya da benzerliklerin net olarak ortaya konması için başka kentlerde de örnekleme yapılması gereklidir.

**Anahtar kelimeler:** Mezarlık Planlaması, Peyzaj Tasarımı, Müslüman Mezarlığı, Süryani Mezarlığı, Mardin, Türkiye.

## CEMETERY PLANNING IN DIFFERENT BELIEFS; MARDIN EXAMPLE

### ABSTRACT

Cemeteries have an important place in urban green space systems with the areas they cover; It is one of the important physical textures that contribute to cities in socio-psychological, ecological, historical and cultural, aesthetic and spiritual aspects. While increasing urbanization easily destroys open-green areas in many cities, the fact that cemeteries are less affected by these changes makes cemeteries even more important in terms of the preservation and sustainability of the existence of green areas in cities.

Cemetery planning may vary according to different beliefs. While Muslim cemeteries are a commemorative area where activities such as visiting the graves of their relatives are carried out on religious and special occasions, in some societies, cemeteries are considered as a

recreational green space system for the urban people, apart from visiting the graves of their relatives. In this study, it is aimed to analyze the physical planning of the cemeteries of the city of Mardin, where people with different religious beliefs live and reflect the socio-cultural heritage. By examining the Muslim and Assyrian cemeteries in the city, it is aimed to reveal possible differences by analyzing their location in the city, their contribution to the urban green space system, and the use of structural and plant materials. As a result of the research, it was revealed that there are similarities and differences in structural and vegetal analyzes in the Muslim Cemetery and the Assyrian Cemetery. While some symbols differ according to religious beliefs, the similarity of the materials and plants used depends on the culture of the region. However, sampling in other cities is necessary to clearly reveal the differences or similarities in the analysis results.

**Keywords:** Cemetery Planning, Landscape Design, Muslim Cemetery, Assyrian Cemetery, Mardin, Turkey.

## TERĞİB VE TERHİB HADİSLERİNDE YALAN PROBLEMİ

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### ÖZET:

Ehl-i sünnet canibinde genel olarak hadisler de vahiy olarak kabul edilir. Sahih hadislerin de olduğu hadis edebiyatının makbul kitaplarına bir şekilde girebilme ayrıcalığını kazanmış metin olarak problemleri rivayetlerin telifiyle ilgili şümüllü bir eleme, tashih, telif yapılamamıştır. Yapılamayışının bir sebebi bu nev hadislerin oldukça fazla olması, eleme durumunda elde az hadis kalacağı iddiasıdır. Bu meyanda dinimizi doğru anlamak ve dine beşerin müdahalesini engellemek için gerçekten Hz. Peygamber'e ait sözlerin tespit edilmesi önem arz etmektedir.

Ehl-i hadis uleması uydurma sözlerin önemli bir kısmının tespitini yapmış ve mevzu hadis kitaplarında listelenmiştir. İtikadi ve önemli meselelerde dürüst kimselerden hadis alma uygulamasıyla, tabiri caizse takipli barkod sistemiyle mevzu rivayetlerin yani yalan hadislerin filtrelenmesine çalışılmıştır. Lakin bahsi geçen senet merkezli filtreleme sistemi ve takip, terğib ve terhib hadislerinde zayıf kalmıştır.

"Terğib" (teşvik) ve "terhib" (korkutma) hadisleri, dini ve ahlaki değerleri vurgulamak amacıyla abartılı mükafatlar veya cezalar içerebilmektedir. Bu tür hadisler, bazen sahih kaynaklardan gelmemiş ve hadislerin doğruluğu konusunda şüpheler doğurmuştur. Bunun sebebi de itikadi bir mesele olmadığı için gıybeti insan öldürmekle eş tutma örneğinde olduğu gibi küçük bir günaha büyük cezalar, küçük bir iyiliğe büyük mükâfatlar vaad edilmesidir. Keza ibadetlerin faziletleri konusunda da teşvik adına hadisler uydurulmuştur.

Terğib ve terhib konusunda uydurma rivayetler söz konusu edildiğinde dönemin adeta propaganda aracı olarak da görülebilecek olan kıssacıları dikkate almak gerekir. Bazı kıssacılar dini konularda bilgisi yetersiz olan ve halka yalan hadisler uyduran kimselerdi. Kıssacılar ve vaizler, halk arasında popüler olan hikayeler ve abartılı anlatımlar yoluyla etkilerini artırmaya çalışmışlardır. Bu durum uydurma rivayetlerin yayılmasına ve dini bilgilerde karmaşaya yol açmıştır. Bu durum, özellikle İslam'ın erken dönemlerinde hadislerin doğruluğuna olan güveni sarsmıştır. Kıssacılar, meşhur olma, iyi hatip olma, dikkat çekme, dinleyenleri galeyana getirme, maddi ve manevi kazanç gibi amaçlarla uydurma hadisler rivayet etmişlerdir. Hadisçilerin diğer konularda göstermeyip terğib ve terhib konusunda gösterdikleri tesahül konuyla ilgili yalan hadislerin beklenenden çok daha fazla olmasına sebep olmuştur. Bu durum terğib ve terhib konulu hadislerin güvenilirliğini zedelemiş ve İslam toplumu içinde sorunlara yol açmıştır. Zira dinin ikinci kaynağı kabul edilen hadisin mutlak bir otoritesi vardır. Terğib ve terhib hadislerinin bir kısmı ahlak, vizyon görüş, bakış açısı, günlük hayat, ibadet hayatı ve beşeri ilişkilere dair olduğu, ibadetleri ve ahlakı şekillendirmede etkileme gücü olduğu için dikkat edilmesi gerekmektedir. Terğib ve terhib konulu olup Hz. Peygamber'e aidiyeti şüpheli hadislerin kullanılmaması gerekir. Bu çalışmada Terğib ve terhib hadislerinin neden ve nasıl yayıldığı ele alınmıştır.

**Anahtar Kelimeler:** İslam Mezhepleri, Hadis, Terğib ve Terhib, Mevzu Hadis, Kussâs



### **Abstract**

In the Ahl al-Sunnah community, hadiths are generally accepted as revelation. There has not been a comprehensive elimination, correction, and composition of the textually problematic narrations that have somehow gained the privilege of entering the acceptable books of hadith literature, including sahih hadiths. One of the reasons for not being able to do this is the claim that there are too many such hadiths and that if they are eliminated, there will be few hadiths left. In this context, in order to understand our religion correctly and to prevent human intervention in religion, it is important to identify the sayings that really belong to the Prophet. Ahl al-Hadith scholars have identified a significant number of fabricated sayings and listed them in the books of hadith. With the practice of taking hadith from honest people on theological and important issues, so to speak, with the tracked barcode system, it has been tried to filter the fabricated narrations, that is, false hadiths. However, the aforementioned senet-centred filtering system and follow-up remained weak in the hadiths of terğib and terhib. ‘Terğib’ (encouragement) and “terhib” (fear) hadiths may contain exaggerated rewards or punishments in order to emphasise religious and moral values. Such hadiths sometimes did not come from authentic sources and raised doubts about their authenticity. The reason for this is that great punishments are promised for a small sin and great rewards are promised for a small good deed, as in the example of equating backbiting with killing a human being because it is not a matter of faith. Likewise, hadiths have been fabricated about the virtues of worship in the name of encouragement.

When it comes to fabricated narrations about terğib and terhib, it is necessary to consider the storytellers, who can be seen as a propaganda tool of the period. Some of the storytellers were people who had insufficient knowledge in religious matters and fabricated false hadiths for the public. The storytellers and preachers tried to increase their influence through stories and exaggerated narratives that were popular among the people. This led to the spread of fabricated narrations and confusion in religious knowledge. This undermined confidence in the authenticity of hadith, especially in the early period of Islam. The storytellers narrated fabricated hadiths for purposes such as becoming famous, being a good orator, attracting attention, arousing the listeners, and material and spiritual gain. The tesahah of the hadith narrators on the subject of terğib and terhib, which they did not show in other subjects, caused the number of false hadiths on the subject to be much higher than expected. This situation damaged the reliability of the hadiths on terğib and terhib and caused problems within the Islamic society. Because hadith, which is accepted as the second source of religion, has an absolute authority. Since some of the hadiths on tirmidhib and terhib are about morality, vision, perspective, daily life, worship life and human relations, and have the power to shape worship and morality, they need to be paid attention. Hadiths on tirmidhib and terhib, which are of doubtful authenticity to the Prophet, should not be used. In this study, it is discussed why and how the hadiths of terğib and terhib were spread.

**Keywords:** Islamic Sects, Hadith, Mawzu Hadith, Storytellers, Fabricated narrations

**CABIN CREW SELECTION WITH FUZZY MULTIMOORA: APPLICATION IN AN AIRLINE COMPANY<sup>1</sup>**

**BULANIK MULTIMOORA İLE KABİN MEMURU SEÇİMİ: BİR HAVAYOLU ŞİRKETİNDE UYGULAMA**

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**ABSTRACT**

In the dynamic world of business, staying abreast of innovations is crucial for companies to remain competitive and ensure their longevity. To achieve this, they must undertake various activities to bolster their business reputation. It is essential to select employees with top-notch qualifications to attain the desired quality, success, and profitability. In a competitive market, it is important for human resources that will add value to the business to have high-level qualifications, have undergone a good education process and continue to be committed to the business. These factors emphasize the increasing significance of effective human resources management day by day.

Influential human resources management is critical in the aviation industry, which is especially affected by changing living conditions. Especially since cabin services are an area that represents the visible face of airline companies, communicates directly with passengers, and includes activities that will determine the positive or negative image, it is necessary to meticulously continue the process of recruiting personnel to meet customers' expectations. For that reason, some measures are determined for the employment of cabin crew who will manage the competitive process positively, represent the values of the airline companies, and meet customer and quality expectations with their greatest characteristics. In that study, a personnel selection study was conducted to consider the competencies and criteria that an airline company seeks in cabin crew. Due to the principles of variability and subjectivity in the personnel selection process, the FUZZY MULTIMOORA approach, one of the multi-criteria decision-making methods, was suggested.

Three candidates who passed the first steps were evaluated in an interview for the relevant position by experts in personnel recruitment at an airline company. The data obtained as a result of these interviews with human resources experts was used to determine the best candidate with the MULTIMOORA method. The results of an integrated AHP-TOPSIS application were also utilized to test the validity of the findings.

**Keywords:** The Fuzzy MULTIMOORA, Cabin Crew, Personnel Selection, Aviation Sector.

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<sup>1</sup> This study was produced using the thesis titled Cabin Crew Selection with the Multimoora Method: An Application in an Airline Company.

## ÖZ

Dinamik iş dünyasında işletmelerin rakiplerine karşı güçlü olmak ve devamlılıklarını sağlamlaştırmak için yenilikleri yakından takip etmeleri hayati önem taşır. Bunu başarmak için işletmelerinin imajını geliştirecek çeşitli faaliyetlerde bulunmaları gerekir. Hedeflenen kalite, başarı ve kazancı elde etmek için en iyi özelliklerle donatılmış çalışanların seçilmesi gerekir. Rekabetçi piyasada işletmeye artı değer katacak insan kaynaklarının üst düzey özellikler taşıması, iyi bir eğitim sürecinden geçmiş olması ve işletmeye bağlılıklarının devam etmesi önemlidir. Bütün bu nedenler, insan kaynakları yönetiminin önemini her geçen gün arttırmaktadır.

Etkin insan kaynakları yönetimi, özellikle değişen yaşam koşullarından etkilenen havacılık sektöründe kritik bir rol oynamaktadır. Özellikle kabin hizmetleri, havayolu şirketlerinin görünen yüzünü temsil eden, yolcularla direkt iletişim kuran, olumlu veya olumsuz imajın belirleyicisi olacak faaliyetleri kapsayan bir alan olduğundan müşterilerin beklentilerine karşılayacak personel temini sürecini titizlikle sürdürmek durumundadır. Bu nedenle rekabet sürecini olumlu yönetecek, havayolu şirketlerinin değerlerini temsil edecek, üstün özellikleri ile müşteri ve kalite beklentilerini karşılayacak kabin görevlilerinin istihdam edilmesi için bazı kriterler belirlenir. Bu çalışmada bir hava yolu firmasının kabin memurlarında aradığı yetkinlikler ve kriterler göz önünde bulundurularak personel seçimi çalışması yapılmıştır. Personel seçimi sürecinde değişkenlik ve sübjektiflik ilkeleri nedeniyle çok kriterli karar verme yöntemlerinden bulanık MULTIMOORA metodu önerilmiştir.

İlk aşamaları geçen üç aday, bir hava yolu şirketinde personel alımında görevli uzmanlar tarafından ilgili pozisyon için gerçekleştirilen görüşmede değerlendirilmiştir. İnsan kaynakları uzmanları ile gerçekleştirilen bu görüşmeler sonucunda ortaya çıkan veriler kullanılarak MULTIMOORA yöntemiyle en iyi aday belirlenmeye çalışılmıştır. Bulguların geçerliliğinin test edilmesi amacıyla bütünsel bir AHP-TOPSIS uygulamasının sonuçlarından da yararlanılmıştır.

**Anahtar Kelimeler:** Bulanık Multimoora, Kabin Memuru, Personel Seçimi, Havacılık sektörü.

**CONSUMER SATISFACTION AND LAW REGULATIONS IN E-COMMERCE.  
THE CASE OF ALBANIA.**

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**Abstract**

Recently, the number of Internet users has increased significantly. Internet users have multiplied so quickly that they have spread widely in all walks of life. Internet usage is no longer limited to entertainment or curiosities. It has opened tremendous business opportunities for its users. Customer satisfaction has naturally become a critical issue in the success of any business system, traditional or online store chain. International trade has been traded with science and technology in the development of continuous improvement and refinement. The development of electronic commerce is on an "extraordinary" scale that permeates all aspects of society, which has significant impacts on international trade.

Electronic commerce represents the future direction of trade development; the market has great potential and a broad development perspective. So, they have greatly reduced transaction costs, which not only profoundly changed the traditional way of producing and managing existing services and consumption patterns, but also had far-reaching implications.

With the improvement of living standards and the acceleration of the pace of life, the shopping behavior of consumers has changed a lot. Electronic commerce represented by the network economy is changing the way people live. Nowadays, more and more consumers have decided to shop online for many reasons.

Globalization of e-commerce as a development of enterprises offered many opportunities, but it is still in the initial stage of development as far as Albania is concerned.

The study aims to assess market trends, consumer behavior, and technological adoption within the Albanian eCommerce landscape. The study concludes that while the Albanian ECommerce sector holds substantial promise, targeted interventions and policy enhancements are essential to overcoming existing barriers and fostering sustainable growth.

As eCommerce grows in the country, Albanian laws and regulations are evolving to address the unique challenges and opportunities presented by digital commerce. The legal framework for eCommerce in Albania is designed to regulate online business activities, protect consumer rights, and ensure fair competition. This regulatory landscape is influenced by both domestic legislation and international standards, particularly those aligned with European Union (EU) directives.

**Keywords:** eCommerce, Albania, digital marketing, electronic ecommerce, consumer behavior, globalization.

**THE IMPORTANCE, APPLICATION AND IMPACT OF WEBSITE DEVELOPMENT ON E-COMMERCE: IMPLICATIONS OF ONLINE MARKETING (SHOPPING) TO BUSINESS MANAGERS**

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**Abstract**

The incorporation of Online-shopping technologies into business paradigm is fast ground in commercial organizations. More and more business firms are creating their websites for the purpose of online transactions where customers browse through their catalog and select the products of interest. Online shopping is an electronic business (e-commerce) generally considered to be the trading aspect where the exchange of data takes place so as to facilitate the payment of business transactions. According to Asbari, M. (2023), e-commerce is redefining traditional business models, reshaping consumer behavior and fostering global connectivity. This paper is mixed survey on the importance, application and impact of Website on e-commerce. The paper discussed the basic concept of online shopping. The paper also outlined some prospects and Issues of website on online marketing. Online Google form questionnaire instrument was used to collect vital information from respondents for the purpose of the paper discussion. In conclusion, the paper inferred that e-commerce has gained significance not only from business managers who affirmed that the platform generate new business opportunities but also for customers that asserted that the same sphere provides comparative shopping possibilities.

**Keyword:** Website, E-Commerce, Online Marketing (Shopping).

**ED-DURRU'L-MASÛN'UN KAYNAKLARI VE HAKKINDA  
YAPILMIŞ ÇALIŞMALAR**  
SOURCES OF AL-DURRU'L-MASÛN AND STUDIES ABOUT IT

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**ÖZET**

Mısır ilim havzasında birçok âlim yetişmiştir. Onlardan biri hem tefsir hem de dil ve kıraat alanında öne çıkanlardan Semîn el-Halebî'dir (ö. 756/1355). O, ilk dönemlerden itibaren tefsir ilminin doğup geliştiği ve ilmi hüviyetini kazandığı hicrî ilk yedi asırdaki tefsir müktesebatının kritiğini yapmıştır. Özellikle nahiv ve kıraat alanında birçok tefsir kaynağından âlimlerin görüşleri arasında karşılaştırmalar yaparak bir araya getirdiği *ed-Durru'l-Masûn fî Ulûmi'l-Kitâbi'l-Meknûn* adlı ansiklopedik eseri, tefsir tarihinde vazgeçilmez bir öneme sahiptir. Eser Kur'ân'ın tümüne ihtimal olup bizzat müellif'in kaleminden çıkmış ve dört ciltten meydana gelmiştir. Müellif, tefsirde birçok farklı alanın literatüründen yararlanmıştır. Bu alanların başında dilbilim, tefsir, hadis ve kıraat ilmi olmuştur.

Bu çalışmada Semîn el-Halebî'nin, *Ed-Durru'l-Masûn* adlı tefsirinde hangi tefsir kaynaklarından yararlandığı ve kaynakları nasıl kullandığı araştırma konusu yapılmıştır. Eserin temel tefsir kaynakları arasında İbn Atiyye, Zemaşerî Ebû Hayyân el-Endelusî ve el-Ukberî'nin tefsirleri yer almaktadır. Semîn el-Halebî, eserinde kendisinden önceki müfessirlerden bilgi aktarımında bulunurken kitapların isimlerini zikretmemiş sadece müelliflerinin isimlerini zikretmiştir. Bununla birlikte eserin muhakkiki, tefsirin müellif nüshasının Şehit Ali Paşa Kütüphanesinde bulunduğunu belirtmiş ve inceleme esnasında eserle ilgili herhangi bir şüpheye rastlamadığını hatta müellife ait olduğuna dair kesin kanaate vardığını ifade etmiştir. Çalışmada tefsirin günümüze ulaşan nüshaları yanı sıra, geçmişten günümüze kadar hakkında yapılan ilmi ve akademik çalışmalara dair bilgiler verilmiş ve değerlendirmeler yapılmıştır.

**Anahtar Kelimeler:** Kıraat, Tefsir, ed-Durru'l-Masûn

**ABSTRACT**

Many scholars were raised in the Egyptian basin of knowledge. One of them is al-Samîn al-Khalabî (d. 756/1355), one of the prominent scholars in the fields of tafsîr, language and qiraât. He made a critique of the tafsir acquis in the first seven centuries of Hijri, when the science of tafsir was born and developed from the early periods and gained its scientific identity. His encyclopaedic work entitled al-Durr al-Masûn fî Ulûm al-Qitâb al-Maqnûn, in which he brought together many sources of tafsir, especially in the fields of grammar and qiraat, by making comparisons between the views of scholars, has an indispensable importance in the history of tafsir. The work is based on the entire Qur'an and was written by the author himself and consists of four volumes. The author has benefited from the literature of many different fields in tafsir. Among these fields, linguistics, tafsir, hadith and qiraat were the most important.

In this study, which tafsir sources Semîn al-Khalabî utilised in his tafsîr al-Durr al-Masûn and how he used them have been investigated. Ibn Atiyya, Zamakhshari, Abû Hayyân al-Andalusî and al-Ukbarî's tafsîrs are among the main sources of tafsîr in the work. While Semîn al-Khalabî

cites information from previous commentators in his work, he does not mention the names of the books but only the names of their authors. However, the muhaqqiq of the work stated that the author's copy of the tafsīr was found in the Şehit Ali Paşa library and stated that he did not encounter any doubt about the work during the examination and even came to the definite conclusion that it belonged to the author. In this study, in addition to the extant copies of the tafsīr, information about the scholarly and academic studies on it from the past to the present has been given and evaluations have been made.

**Keywords:** Qiraat, Tafsir, al-Durr al-Masūn

**ÇİN'İN AFGANISTAN POLİTİKASI: STRATEJİK ORTAKLIK YOLUNDA BİR ARAYIŞ**  
**CHINA'S AFGHANISTAN POLICIES: A QUEST FOR STRATEJİK PARTNERSHIP**

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**Özet:**

Bu çalışma, Çin'in Afganistan'daki politikalarını bölgesel bir hegemonik güç olarak derinlemesine inceliyor. Çin'in Afganistan'a yaklaşımı, ülkenin ekonomik, stratejik ve güvenlik çıkarları doğrultusunda nasıl şekillendiğini araştırıyor. Özellikle ABD işgali sonrası dönemde, Çin'in Afganistan'daki politikalarının evrimi ve bu politikaların bölgesel ve küresel stratejik etkileri üzerinde duruluyor. Çalışma, Çin'in Afganistan'a yönelik ana stratejik unsurlarını ele alıyor. Ekonomik işbirliği projeleri, altyapı yatırımları ve enerji kaynakları gibi alanlarda Çin'in rolünü vurguluyor. Ayrıca, Çin'in Afganistan politikalarının temel stratejik düşüncelerini ve bölgesel güvenlik dinamiklerini çok boyutlu bir bakış açısıyla analiz ediyor. Çin'in Afganistan politikalarının sınırlarını, özellikle sınır güvenliği ve terörle mücadele konularında nasıl belirlediğini inceliyor. Bu bağlamda, Çin'in Afganistan'daki diğer büyük güçlerle ilişkilerini ve Afganistan'ın Çin'in Orta Asya'daki genel dış politikasındaki siyasi ve ekonomik yatırımların rolünü değerlendiriyor. Son olarak, çalışma Çin'in Afganistan politikalarının gelecekteki yönelimlerini tartışıyor ve bu politikaların Orta Asya'nın istikrarı ve kalkınması üzerindeki potansiyel etkilerini değerlendiriyor. Bu çalışmanın teorik çerçevesi realist paradigmanın türevleri ve güvenlik teorilerini kapsıyor. Çalışmanın yöntemi günümüzün değişen küresel siyasetini anlamak için büyük güçlerin tarihsel süreçteki politikalarını nitel açıklamalar, yorumlar, tanımlar yaparak karşılaştırmalı bir dış politika analizi yapılmıştır. Çalışmada nicel verilerden de yararlanılarak karma bir yöntem kullanılmıştır. Sonuç olarak, makale, Çin'in Afganistan politikalarının derinlemesine analizini sunarak, bölgesel güvenlik dinamiklerini anlamamıza ve Çin'in küresel stratejik hedefleri çerçevesindeki rolünü değerlendirmemize olanak tanır.

**Anahtar Kelimeler: Çin Dış Politikası, Afganistan, Bölgesel Güvenlik, Bölgesel Hegemonik Güç, Savaş ve Terörizm, Dış Yardım ve Ekonomik Yatırımlar.**

**ABSTRACT:**

This study provides an in-depth examination of China's policies in Afghanistan as a regional hegemonic power. It explores how China's approach to Afghanistan has been shaped in accordance with the country's economic, strategic, and security interests. The focus is particularly on the evolution of China's policies in Afghanistan in the post-U.S. invasion period and their regional and global strategic impacts. The study addresses the key strategic elements of China's policy towards Afghanistan, highlighting China's role in areas such as economic cooperation projects, infrastructure investments, and energy resources. Additionally, it analyzes the fundamental strategic considerations and regional security dynamics of China's policies towards Afghanistan from a multidimensional perspective. The study investigates how China



defines the boundaries of its policies in Afghanistan, particularly in terms of border security and counter-terrorism. In this context, it assesses China's relations with other major powers in Afghanistan and the role of Afghanistan in China's broader foreign policy investments in Central Asia. Finally, the study discusses the future orientations of China's policies in Afghanistan and evaluates the potential impacts of these policies on the stability and development of Central Asia. The methodology of the study includes both qualitative descriptions, explanations, definitions and discussions those all aimed well to comprehend the changing dynamics of the global politics. Thereupon, it analyzes the great power's foreign policies and strategies from a comparative perspective, too. There is also used the quantitative data with mixed methodology in the study. The article also examines the evolution of China's Afghanistan policies over time and its changing strategic priorities. China's presence in Afghanistan is increasingly important both regionally and globally. These policies are also evaluated as part of China's broader strategic objectives in Central Asia. In conclusion, the article provides an in-depth analysis of China's Afghanistan policies, enabling us to understand regional security dynamics and evaluate China's role within the framework of its global strategic objectives.

**Keywords: China Foreign Policy, Afghanistan Politics, Regional Security, Regional Hegemonic Power, Foreign Aid, Economic Investment, War and Terror.**

## SPORCULARDA D VİTAMİNİ TAKVİYESİNİN GROWTH HORMON İGF-1 VE KORTİZOL HORMONLARI ÜZERİNE ETKİSİ

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### ÖZET

Bu Araştırmada antrenmanlara ek olarak uygulanan d vitamini takviyesinin kadın voleybolcularda growht hormon, igf 1 ve kortizol değerlerinde oluşturacağı etkilerin belirlenmesi amaçlanmıştır. Yöntem Araştırma grubuna 17-26 yaş grubunda yer alan 10 kadın voleybolcu gönüllü olarak katılmıştır. Voleybolcu kadın sporcuların 4 hafta boyunca antrenmana ek olarak haftada 3 defa olmak üzere d vitamini takviyesi verilmiştir. Takviyeler başlamadan önce ve bittikten sonra olmak üzere katılımcılardan 2 defa dinledik durumda kan örnekleri alınmıştır. Alınan kan örneklerinde growth hormonu, igf 1 ve kortizol seviyeleri tespit edilmiştir. Elde edilen verilerin analizinde SPSS 22 paket program kullanılmıştır. Gruplar arası farklılıkların analizinde non parametrik testlerden Man Whitney- u testi kullanılmıştır. Bulgular Araştırma sonucunda elde edilen veriler ışığında d vitamini takviyesi alan sporcularda growth hormon, igf 1 ve kortizol hormonu değerlerinde herhangi bir anlamlılık değeri bulunamamıştır. Sonuç olarak haftada 3 defa verilen d vitamini takviyesinin araştırmaya gönüllü olarak katılan kadın voleybolcuların growth hormonu, igf-1 ve kortizol hormonu değerlerinde herhangi bir olumlu etkiye sebep olmadığı tespit edilmiştir.

Anahtar Kelimeler: Kadın Voleybol,D vitamini,Growth Hormonu,Kortizol Hormonu

## EFFECT OF VITAMIN D SUPPLEMENT ON GROWTH HORMONE IGF-1 AND CORTISOL HORMONES IN ATHLETES

### ABSTRACT

Objective Purpose of the study is to assess the effects of vitamin D supplementation in conjunction with training on growth hormone, IGF 1, and cortisol levels in female volleyball players. Method 10 female volleyball players aged 17 to 26 volunteered to participate in the study. Female volleyball players were given vitamin D tablets three times a week in addition to training for four weeks. Blood samples were collected from the individuals twice, before and after the supplements were administered. The blood samples were tested for growth hormone, IGF 1, and cortisol. The acquired data was analyzed using the SPSS 22 package application. The Man Whitney-u test, one of the non-parametric tests, was used to compare the groups. Findings In view of the data acquired as a result of the research, there was no significant value determined in the growth hormone, IGF 1 and cortisol hormone values in athletes taking vitamin D supplements. Result It was discovered that vitamin D supplements applied three times per week had no favorable impact on the growth hormone, IGF-1, or cortisol hormone levels of female volleyball players who freely participated in the study.

Keywords: Women's volleyball, Vitamin D Supplement, Growth hormone, Cortisol Hormone

**BİR SOSYAL BİLİŞ ÇALIŞMASI: HİSARLI AHMET**  
A SOCIAL COGNITIVE STUDY: HISARLI AHMET

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**ÖZET**

Halk müziği sanatçısı ve Kütahya türkülerinin kaynak kişilerinden biri olarak ön plana çıkan Hisarlı Ahmet, müzisyen kimliğinin yanı sıra sosyal hayat içerisinde farklı yönleriyle de dikkat çeken isimlerden birisi olmuştur. Çok sayıda Kütahya türküsü Hisarlı Ahmet'ten derlenmiş olup, türküleri kendine has yorumuyla icra etmesi, onun ve Kütahya türkülerinin kültürümüzün en önemli unsurları arasında yer almasını sağlamıştır. Öğrenmeye ve öğretmeye açıklığı, ciddiyeti, prensipleri, zamana yönelik hassasiyeti gibi özellikleri başta olmak üzere kendine has kişiliği Hisarlı Ahmet'i döneminin diğer müzik insanlarından ayıran başlıca özellikler olarak karşımıza çıkmaktadır.

Yalnızca doğduğu ve büyüdüğü Kütahya'da değil, ülke genelinde tanınmış bir halk sanatçısı olan Hisarlı Ahmet ismi dile getirildiğinde, onunla ilgili olarak akla ilk gelen hususlardan biri müzisyen kimliğinin yanı sıra hiç kuşkusuz hassas kişiliği olacaktır. Yaşadığı dönemde çevresine, vefatından sonra ise herkese örnek olan sanatçının, kendine has icra tarzı ve Türk halk müziği repertuarına kazandırdığı değerli türküler sayesinde, radyolarda sıklıkla "*Hisarlı Ahmet'ten alınan bir Kütahya türküsü dinleyeceksiniz*" anonsu duyulmaktadır.

Bu çalışmada Hisarlı Ahmet, sosyal psikolojinin en önemli başlıkları arasında yer alan sosyal biliş temelli olarak ele alınmıştır. Sosyal bilişin odak noktası bireydir. Araştırmada; Hisarlı Ahmet'i tanıyanların, toplumsal dünyaya ilişkin bilgilerini; çevresini-farklılıklarını-rollerini anımsaması, yorumlaması, kullanmasına yönelik tutum ve davranışları betimlenmiştir. Nitel ve sözlü tarih temelli çalışmada veriler yapılandırılmış görüşme yoluyla toplanmıştır.

**Anahtar kelimeler:** Sosyal Biliş, Hisarlı Ahmet, Hafıza.

**ABSTRACT**

Hisarlı Ahmet, who stands out as a folk musician and one of the key figures of Kütahya folk songs, has also drawn attention with various aspects of his social life, in addition to his musical identity. Many Kütahya folk songs have been compiled from Hisarlı Ahmet, and his unique interpretation of these songs has made him and Kütahya folk songs some of the most significant elements of our culture. His openness to learning and teaching, seriousness, principles, and

sensitivity to time, among other characteristics, distinguish Hisarlı Ahmet from other musicians of his era.

When the name Hisarlı Ahmet, a well-known folk artist not only in Kütahya, where he was born and raised, but throughout the country, is mentioned, one of the first things that comes to mind, in addition to his musician identity, is undoubtedly his sensitive personality. During his lifetime, he was an exemplary figure to his surroundings, and after his death, to everyone, thanks to his unique performance style and the valuable folk songs he contributed to the Turkish folk music repertoire. This is often announced on the radio with the phrase "You will listen to a Kütahya folk song taken from Hisarlı Ahmet."

In this study, Hisarlı Ahmet is approached based on social cognition, one of the most significant topics in social psychology. The focus of social cognition is the individual. The research describes the attitudes and behaviors of those who knew Hisarlı Ahmet towards recalling, interpreting, and using their knowledge of the social world, including their environment, differences, and roles. The data in this qualitative and oral history-based study were collected through structured interviews.

**Keywords:** Social Cognition, Hisarlı Ahmet, Memory.

**SPORCULARDA OKSİDATİF STRES VE ANTİOKSİDAN KULLANIMI**  
**OXIDATIVE STRESS AND ANTIOXIDANT USE IN ATHLETES**

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**ÖZET**

Egzersiz sırasında serbest radikallerin potansiyel zararları, egzersizin şiddeti ve süresine bağlı olarak değişir. Hafif şiddette yapılan egzersizler antioksidan enzimlerin ekspresyonunu uyarırken, yüksek şiddetli egzersizler oksidatif strese ve hücre hasarına neden olabilir. Egzersiz ve oksidatif stresi birleştiren iki temel mekanizma vardır: İlki, egzersiz sırasında oksijen kullanımının istirahat hâlinde 10-15 kat daha fazla olması, ikincisi ise oksidantların oluşumunun ardından antioksidan aktivitenin yetersiz kalmasıdır. Sporcularda uzun süre devam eden oksidatif stres, yorgunluk durumlarının ortaya çıkmasına ve performansın düşmesine yol açar. Akut egzersiz, lipid peroksit yan ürünlerinin düzeylerini artırırken, aynı zamanda doğal antioksidan sistem işlevlerinde net bir artışa ve lipid peroksidasyonunda azalmaya neden olur. Bu nedenle, iyi antrenman yapan bir sporcu, daha az aktif bir bireye kıyasla daha gelişmiş bir endojen antioksidan sisteme sahip olur. Reaktif oksijen türlerinin düşük konsantrasyonlarını sürdürmek ve oksidatif strese karşı koruma sağlamak amacıyla endojen ve ekzojen antioksidanların kullanıldığı stratejiler geliştirilmiştir. Ancak reaktif oksijen türlerinin birikmesi durumunda endojen antioksidanlar yeterli olamaz ve bu da hücre zarı veya hücre içi moleküllerde oksidatif modifikasyonlara yol açar. Bu nedenle, serbest radikallerin üretimine ve oksidatif hasara karşı korunmaya katkıda bulunabilecek çeşitli diyet antioksidanları belirlenmiştir.

Bu bağlamda bu araştırmanın amacı, sporcularda egzersiz sonrasında oluşan oksidatif stres üzerine diyet antioksidanlarının etkisini belirlemektir. Bu amaç doğrultusunda, 2013 yılından itibaren konu ile ilgili yapılmış çalışmalar incelenmiştir. Bu çalışmada, egzersizde optimal uyarıcı adaptasyonda önemli olan, reaktif oksijen türleri ile ilgili daha fazla çalışmaya ihtiyacı olduğu tespit edilmiştir. Birçok sporcunun diyetle birlikte antioksidan gereksinimlerini karşılamasına rağmen, gereksiz bir şekilde antioksidan supplementi kullanmakta olduğu bulunmuştur. Bu yüzden sporcular, kayıtlı bir diyetisyen tarafından antioksidan supplementleri alımının performansı arttırmadığı konusunda bilgilendirilmelidirler. Sporcu diyetisyenleri sporcuları, besin çeşitliliğine odaklı bir diyet uygulamaları konusunda teşvik ederek sporcuların mikro besin ögesi yetersizliklerini gideren, oksidatif stresi önleyen ve performansı yükselten birçok beslenme stratejisinden yararlanmasına yardımcı olmalıdır.

**Anahtar kelimeler:** Sporcu Beslenmesi, Oksidatif Stres, Diyet Antioksidanları.

**ABSTRACT**

The potential harm from free radicals during exercise varies depending on the intensity and duration of the exercise. While mild exercise stimulates the expression of antioxidant enzymes, high-intensity exercise can cause oxidative stress and cell damage. Two primary mechanisms link exercise to oxidative stress: increased oxygen consumption during exercise (10-15 times greater than at rest) and insufficient antioxidant activity to counteract oxidant formation. Prolonged oxidative stress in athletes can cause fatigue and reduced performance. Acute exercise elevates lipid peroxide byproducts, yet also enhances natural antioxidant systems and reduces lipid peroxidation. Therefore, a well-trained athlete has a more developed endogenous antioxidant system compared to a less active individual. Strategies using endogenous and

exogenous antioxidants have been developed to maintain low concentrations of reactive oxygen species and to protect against oxidative stress. However, when reactive oxygen species accumulate, endogenous antioxidants cannot be sufficient, leading to oxidative modifications in cell membranes or intracellular molecules. Therefore, various dietary antioxidants have been identified that may contribute to the production of free radicals and protection against oxidative damage.

In this context, this study aimed to examine the effects of dietary antioxidants on oxidative stress in athletes post-exercise by reviewing studies conducted on the subject since 2013. In this study, it was determined that there is a need for further studies on reactive oxygen species, which are important in optimal stimulatory adaptation during exercise. Additionally, many athletes use antioxidant supplements unnecessarily, despite meeting their antioxidant requirements with their diet. Therefore, athletes should be informed by a registered dietitian that antioxidant supplements do not increase performance. Sports dietitians should encourage athletes to implement a diet focused on nutrient diversity and help athletes benefit from many nutritional strategies that eliminate micronutrient deficiencies, prevent oxidative stress, and enhance performance.

**Keywords:** Athlete Nutrition, Oxidative Stress, Dietary Antioxidants.

**SIVILAŞMAYA KARŞI JET GROUT YÖNTEMİNİN KULLANILMASI**  
**USE OF JET GROUT METHOD AGAINST LIQUEFICATION**

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**ÖZET**

Dünya üzerinde artan nüfus ile yapılaşma ihtiyacı gün geçtikçe artmaktadır. Yapılaşma için ise inşaa sahası arayışı ortaya çıkmaktadır. Yapılaşma için kullanılacak inşaa sahaları her zaman istenilen mühendislik özelliklerde bulunamayabilmektedir. Mühendislik özellikleri üzerine inşaa edilen yapıyı sorunsuz şekilde karşılayabilecek sahalarda artan yapılaşma ihtiyacından dolayı yetersiz kalmaktadır. Bundan dolayı ise mühendislik özellikleri yetersiz zeminlerin yapılaşma için kullanılması zorunlu bir hal almaktadır. İnşaa sahası olarak kullanılacak zeminlerde farklı sorunlar ile karşılaşmaktadır. En yaygın karşılaşılan sorunlar ise zeminlerde taşıma gücü yetersizliği, aşırı oturmalar ve sıvılaşma olayıdır. Problemlili zeminlerin olduğu şekliyle kullanılması güvenli olmamaktadır. Kullanılmak istendiğinde zeminlerde bulunan bu sorunların bertaraf edilmesi gerekmektedir. Bunun için zemin iyileştirme yöntemlerine başvurulmaktadır. Bu tür problemlili zeminlerin iyileştirilmesi için yapılan çalışmalar ile farklı iyileştirme yöntemleri geliştirilmiş ve bu yöntemler ile ilgili birçok çalışma yapılmıştır. Bu yöntemlerden biri de en çok karşılaşılan mühendislik problemlilerinden biri olan zemin sıvılaşmasının önüne geçerek taşıma gücünü arttıran ve oturma miktarlarını sınırlandıran dünyada ve ülkemizde de yaygın olarak kullanılan jet enjeksiyon (jet grout) yöntemidir. Jet grout zemin iyileştirme yöntemi sıvılaşma probleminin çözümünde kullanıldığı gibi bir çok farklı geoteknik mühendisliği uygulamasında da kullanılmaktadır. Uygulama kolaylığı ve ulaşılabilirliği ile çokca tercih edilmektedir. Bu çalışmada sıvılaşma problemi açıklanmış, jet grout yönteminin zemin iyileştirme ve sıvılaşma üzerindeki etkisi ile birlikte uygulama tekniği ve uygulama alanları incelenmiştir.

**Anahtar Kelimeler:** Sıvılaşma, Jet Grout, Zemin İyileştirme

**ABSTRACT**

With the increasing population in the world, the need for construction is increasing daily. The search for construction sites arises. Construction sites to be used for construction may not always have the desired engineering properties. Sites that can easily meet the structure built on engineering properties are insufficient due to the increasing construction need. Therefore, it has become mandatory to use soils with insufficient engineering properties for construction. Different problems are encountered in soils to be used as construction sites. The most common

issues are insufficient bearing capacity in soils, excessive settlements, and liquefaction. It is not safe to use problematic soils as they are. When used, these problems in soils must be eliminated. For this purpose, soil improvement methods are used. Different improvement methods have been developed with the studies carried out to improve such problematic soils and many studies have been conducted on these methods. One of these methods is the jet grout method, which is widely used in the world and our country, which prevents soil liquefaction, which is one of the most encountered engineering problems, increases bearing capacity, and limits settlement amounts. The jet grout ground improvement method is used in solving liquefaction problems as well as in many different geotechnical engineering applications. It is widely preferred due to its ease of application and accessibility. In this study, the liquefaction problem is explained, and the effect of the jet grout method on ground improvement and liquefaction together with application technique and application areas are examined.

**Keywords:** Liquefaction, Jet Grout, Ground Improvement



**SPİRULİNA'NIN (ARTHROSPIRA PLATENSİS) KANATLI YEMLERİNDE KULLANIMI**  
**USE OF SPIRULINA (ARTHROSPIRA PLATENSIS) IN POULTRY FEED**

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**ÖZET**

Bu derlemede, kanatlı hayvan rasyonlarının maliyetinin önemli bir bölümünü oluşturan pahalı protein kaynaklarına alternatif olarak son yıllarda kullanımı giderek yaygınlaşan Spirulina'nın kanatlı yemlerinde kullanılması halinde kanatlı hayvan sağlığı üzerine etkilerinin incelenmesi ele alınmaktadır. Spirulina (*Arthrospira platensis*), protein ve çeşitli vitaminler ile mineraller yönünden zengin bir kaynak olup uzun yıllardan beri gıda kaynağı olarak tüketilen bir mikro alg cinsidir. Spirulina platensis antioksidan, antiinflamatuvar, antitümör, immunomodulator, hipoglisemik ve hipolipidemik, hepatoprotektif ve nefroprotektif etkilere sahip olması nedeniyle insan ve hayvan sağlığında çeşitli hastalıkların tedavisinde kullanılmaktadır. Spirulina platensis kanatlı hayvan rasyonlarında ise kanatlı hayvanlarda amino asit ihtiyacını karşılamak amacıyla kullanılmaktadır. Spirulina platensis'in kanatlı rasyonlarına ilave edilmesiyle beraber kanatlı hayvanlarda büyüme performansının olumlu yönde etkilediği, kanatlı hayvanlarda bağırsak sağlığını iyileştirici etkisinin olduğu, yumurta üretim ve ağırlığında artışı sağladığını, kuluçka çıkış gücü ve civciv yaşam yüzdesinde artışı sağladığını, abdomen ve karaciğerde yağ birikimini azalttığı, vücutta antikor ve sitokin üretimini teşvik ederek immun sistemi desteklediği, enfeksiyöz hastalıklara ve toksinlere karşı korunmada yardımcı rol oynadığı bildirilmektedir. Spirulina platensis'in kanatlı rasyonlarına ilave edilmesini zorlaştıran faktörlere bakıldığında olumsuz hava koşullarından dolayı besin madde değerleri ve içeriğinin etkilenebileceği, spirulina platensisin yapısındaki yüksek seviyede sindirilemeyen proteinin jelleşmesi sonucunda hayvanlarda kötü performansa neden olabileceği, üretiminin yalnızca küçük ölçekli sektörlerde olduğunun unutulmaması gerekmektedir.

**Anahtar kelimeler;** Kanatlı, Spirulina, Kanatlı Yemi

**ABSTRACT**

In this review, the effects of Spirulina, which has become increasingly used in recent years as an alternative to expensive protein sources that constitute a significant part of the cost of poultry rations, on poultry health when used in poultry feeds, are discussed. Spirulina (*Arthrospira platensis*) is a type of microalgae that is a rich source of protein, various vitamins and minerals, and has been consumed as a food source for many years. Spirulina platensis is used in the treatment of various diseases in human and animal health due to its antioxidant, anti-inflammatory, antitumor, immunomodulatory, hypoglycemic and hypolipidemic, hepatoprotective and nephroprotective effects. Spirulina platensis is used in poultry rations to meet the amino acid needs of poultry. Spirulina platensis, when added to poultry rations, positively affects the growth performance of poultry, has an improving effect on intestinal

health in poultry, provides an increase in egg production and weight, increases hatchability and chick survival percentage, reduces fat accumulation in the abdomen and liver, and has a positive effect on the intestinal health of poultry. It is reported that it supports the immune system by encouraging the production of antibodies and cytokines and plays a helpful role in protecting against infectious diseases and toxins. Considering the factors that make it difficult to add *Spirulina platensis* to poultry rations, it should not be forgotten that the nutritional values and content may be affected due to adverse weather conditions, the high level of indigestible protein in the structure of *spirulina platensis* may cause poor performance in animals as a result of gelation, and its production is only in small-scale sectors.

**Keywords;** Poultry, Spirulina, Poultry Feed

**RISKS FOR BUYERS OF SUBDIVIDED REAL ESTATE  
THROUGH SMART CONTRACT IN VIET NAM**

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**ABSTRACT:** The subdivided real estate model through blockchain technology and smart contracts is making strides in the current real estate sector, especially during market volatility. This article studies the role of smart contract applications in the subdivided real estate model, the current state of its application, and the risks for real estate buyers related to this model today. It also proposes recommendations for buyers.

**Keywords:** subdivided real estate; blockchain; smart contracts; real estate business; buyers;

**OLUNABİLEN BİR KİMLİK OLARAK TÜRK:  
ORHUN ABİDELERİ'NDE VE ZİYA GÖKALP'TE "TÜRKLEŞMEK"  
THE TURK AS AN IDENTITY THAT CAN BE:  
"TURKIFICATION" IN THE ORKHON MONUMENTS AND ZİYA GÖKALP**

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**ÖZET**

Bu bildirinin amacı, insanın kendini tanımlamada, hayatı anlamlandırmada önemli bir yekûnu işgal eden kimlik olgusu bağlamında Türk kimliğinin hem Orhun Abidelerinde hem de Ziya Gökalp'te sonradan olunabilme yönünü anlamak ve açıklamaktır. İnsanın hayattaki anlam dünyasını belirleyen, belirgin hale getiren, yaşamı daha anlamlı kılan kavramların başında kişinin "kim"liği gelmektedir. Kimlik kişinin hem içsel/bireysel hem de dışsal/kolektif anlam dünyasını, dünya görüşünü, gelecek tasavvurunu şekillendirmesi bakımından oldukça önemli bir işleve sahiptir. Modern ulus devletin icadı ile etnik kimlikler siyasal kimliklere oradan da ulusal kimliklere dönüşmüştür. Bu duruma modern biyolojik teorilerin ırk kavramı da eklenildiğinde doğuştan gelen siyasal ve ulusal kimlik tanımlamaların ön plana çıktığı görülmektedir. Bu yaklaşımdan Türk kimliği de nasibini almıştır. Tek Parti yıllarında çeşitli antropolojik çalışmalarla biyolojik bir Türk tanımı da yapılmaya çalışıldığı görülmektedir. Ancak tarihsel süreçte hem Türk kavramının ilk kullanımı bakımından Orhun Abidelerinde hem de modern Türk kimliğinin inşa sürecinde Ziya Gökalp'te "Türk", olunabilen ve hatta ondan çıkılabilen bir kavram olarak tanımlandığı görülmektedir. Bu da Türk kavramına hem siyasal hem de tarihsel olarak daha geniş anlamların yüklenebilmesini sağlamıştır. Hatta modern öncesi dönemde Batı'da yüklenen anlamlara bakıldığında bu tanımlamanın tarihsel alt yapısının olduğu da görülmektedir. Orhun Abidelerinde belli bir töreye sahip olan insanlara verilen ve töreyi terk edenin de Türklükten çıktığı yönündeki tanımlamalar, Ziya Gökalp'in "Türkleşmek" kavramsallaştırmasıyla ciddi uyum içinde olduğu görülmektedir. Bu bağlamda Türk kavramına ve kimliğine ilk olarak geniş anlam yüklemesi bağlamında Orhun Abideleri, modern Türk kimliğini inşası sürecinde yaptığı katkılar nedeniyle Ziya Gökalp'in olunabilen "Türk" tanımlamaları Türkiye'deki kimlik ve Türk'ün "kim" olduğu tartışmalarına katkı sağlayacağı açıktır.

**Anahtar Kelimeler:** Türk, Türkleşmek, Orhun Abideleri, Ziya Gökalp.

**ABSTRACT**

The aim of this paper is to understand and explain the aspect of Turkish identity in both the Orkhon Monuments and Ziya Gökalp in the context of the identity phenomenon, which occupies an important place in defining oneself and making sense of life. The "identity" of a person is one of the most important concepts that determine and clarify the world of meaning in life and make life more meaningful. Identity has a very important function in terms of shaping both one's internal/individual and external/collective world of meaning, worldview and vision of the future. With the invention of the modern nation state, ethnic identities have transformed into political identities and then into national identities. When the race concept of modern biological theories is added to this situation, it is seen that innate political and national identity definitions come to the fore. Turkish identity was also affected by this

approach. During the Single Party years, various anthropological studies attempted to define a biological Turkish identity. However, in the historical process, it is seen that both in the Orkhon Monuments in terms of the first use of the concept of Turk in the historical process and in Ziya Gökalp in the process of constructing the modern Turkish identity, "Turk" is defined as a concept that one can be and even exit from. This has enabled the concept of Turk to be attributed broader meanings both politically and historically. In fact, when we look at the meanings attributed to it in the West in the pre-modern period, it is seen that this definition has a historical background. The definitions given in the Orkhon Monuments to people who have a certain tradition and that those who abandon the tradition cease to be Turks are in serious harmony with Ziya Gökalp's conceptualization of "Turkification". In this context, it is clear that the Orkhon Monuments, in the context of first attributing a broad meaning to the concept and identity of Turk, and Ziya Gökalp's definitions of "Turk", which can be made by Ziya Gökalp due to his contributions to the process of constructing the modern Turkish identity, will contribute to the debates on identity and "who" the Turk is in Turkey.

**Keywords:** Turk, Turkification, Orkhon Monuments, Ziya Gökalp.

**ŞEVKET AZİZ KANSU’NUN TÜRK ANTROPOLOJİ MECMUASINDAKİ “TÜRK”  
ALGISI**  
ŞEVKET AZİZ KANSU’S PERCEPTION OF “TURK” IN TURKISH ANTHROPOLOGY  
JOURNAL

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**ÖZET**

Bu çalışma Türkiye bilim ve akademi tarihinde önemli bir konumda olan Şevket Aziz Kansu’nun Türk Antropoloji Mecmuasında bir ırk olarak inşa ve hatta icat etmeye çalıştığı Türk tanımına ve bugüne yansımalarına odaklanmaktadır. Kansu 1942-1944 yılları arasında Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi dekanlığı yapmış, 1946’da Ankara Üniversitesinin ilk rektörü olmuş, 1962-1973 yılları arasında Türk Tarih Kurumu başkanlığı yapmış, Türkiye’de antropoloji ilminin gelişmesine büyük katkılar sunmuş dönemin önemli ilmi şahsiyetlerinden biridir. Türk Antropoloji ve Etnoloji Enstitüsü bünyesinde 1925 ile 1939 yıllarında arasında yayınlanmış olan Türk Antropoloji Mecmuası toplamda 22 sayı yayınlamıştır. Kansu’nun yayınlanma sürecinde büyük katkılar sunduğu Türk Antropoloji Mecmuasındaki antropolojiyi merkeze alan Türk tanımlamaları bugünkü birçok tartışmanın da kaynağını oluşturmaktadır. Kansu’nun yapmış olduğu, ırk vasıfları taşıyan, antropoloji ile inşa edilmek istenen Türk tanımı dönemin hâkim paradigmalardan olduğunu özellikle vurgulamak gerekmektedir. Kansu Türk Antropoloji Mecmuasındaki çalışmalarında mezarlıklardan toplanan kafataslarında, yaşayan farklı yaşlarda ve Anadolu’nun farklı yerlerindeki insanlar üzerinde yapmış olduğu antropolojik ölçümlerle bir Türk tanımı inşa ve icat etmeye çalıştığı gözlemlenmektedir. Bu ölçümleri Batı’daki ölçümlerle de kıyaslayan Kansu bulduğunu düşündüğü Türk ırkının ırklar ailesindeki yerini de tayin etmek istemektedir. Çünkü iki cihan harbi arası dönemde Batı’daki pek çok devlet kendini ırksal anlamda anlatmak ve hatta üstün göstermek çabasına girmiştir. Bu durumdan Batıyı kendine mihmandar edinmiş Cumhuriyet aydınının etkilenmemesi söz konusu değildir. Kansu bu durumun en tipik örneğidir. Kansu’nun Türk Antropoloji Mecmuasındaki yazılarındaki Türk tanımının anlaşılması, aslında bir dönem popüler olan bir yöntemin ve izah biçiminin daha sonraki dönemlere sosyal ve siyasal ne tür yansımalarının olduğunun anlaşılması bağlamında oldukça önemlidir.

**Anahtar Kelimeler:** Şevket Aziz Kansu, Türk Antropoloji Mecmuası, Türk, Irk.

**ABSTRACT**

This study focuses on the definition of Turk as a race that Şevket Aziz Kansu, an important figure in the history of Turkish science and academia, tried to construct and even invent in the Turkish Anthropology Journal and its reflections on the present day. Kansu served as the dean of the Faculty of Language and History-Geography at Ankara University between 1942 and 1944, became the first rector of Ankara University in 1946, served as the president of the Turkish Historical Society between 1962 and 1973, and made great contributions to the development of anthropology in Turkey. The Turkish Anthropology Journal, which was published between 1925 and 1939 by the Turkish Anthropology and

Ethnology Institute, published 22 issues in total. The anthropology-centered definitions of Turks in the Turkish Anthropology Journal, to which Kansu made great contributions during the publication process, constitute the source of many debates today. It should be emphasized that Kansu's definition of the Turk, who had racial qualities and was intended to be constructed through anthropology, was one of the dominant paradigms of the period. In his works in the Turkish Anthropology Journal, Kansu tries to construct and invent a definition of the Turk through anthropological measurements made on skulls collected from cemeteries, on living people of different ages and in different parts of Anatolia. Kansu, who also compared these measurements with those in the West, wanted to determine the place of the Turkish race, which he thought he had found, in the family of races. Because in the period between the two world wars, many states in the West tried to explain themselves racially and even to show themselves superior. It is not possible for the intellectuals of the Republic, who had adopted the West as their guide, not to be affected by this situation. Kansu is the most typical example of this situation. Understanding the definition of Turk in Kansu's writings in the Turkish Anthropology Journal is very important in terms of understanding the social and political repercussions of a method and way of explanation that was popular for a period of time.

**Keywords:** Şevket Aziz Kansu, Turkish Anthropology Journal, Turk, Race.

**MACHINE LEARNING ANALYSIS OF MECHANICAL PROPERTIES IN Al<sub>2</sub>O<sub>3</sub>-  
REINFORCED POLYMER COMPOSITES PRODUCED VIA  
STEREOLITHOGRAPHY**

**STEREOLITOGRAFI İLE ÜRETİLEN Al<sub>2</sub>O<sub>3</sub> TAKVIYELİ POLİMER  
KOMPOZİTLERDE MEKANİK ÖZELLİKLERİN MAKİNE ÖĞRENİMİ İLE  
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**ABSTRACT**

Additive manufacturing is a production method applied in various sectors, including aviation, medical applications, construction, and biomaterials. In this method, the use of moulds that shape the material is unnecessary. The main devices used in additive manufacturing are three-dimensional printers. Among these, digital light processing (DLP) and stereolithography (SLA), known as photochemical methods, are the most widely used. These methods employ the polymerisation of photoresins using UV light to create layers and produce the final solid product.

A literature review revealed that studies exist on various properties of epoxy/acrylate-based ceramic-reinforced composites produced by 3D printers. However, there is insufficient research on the effects of ceramic additives on the tensile and flexural strength of these materials and their analysis using machine learning. The study aims to investigate the effect of Al<sub>2</sub>O<sub>3</sub> additives at different ratios (0%, 0.25%, 0.50%, and 1.0% by weight) in epoxy/acrylate-based resin on the mechanical properties of composites, to analyse the results using machine learning techniques.

Within the study, Al<sub>2</sub>O<sub>3</sub>-reinforced composite specimens at different ratios were produced as tensile and three-point bending test specimens using an SLA-based 3D printer. The specimens were cured under UV light for 60 minutes. Tensile tests and XRD analyses were performed, and the mechanical test results were modelled using machine learning. Experimental results showed an improvement in mechanical properties at 0.25%-0.5% Al<sub>2</sub>O<sub>3</sub> ratios, while a decrease was observed in reinforcements above this ratio. In the machine learning analysis, the decision tree model gave more accurate results than the linear regression model.

**Keywords:** 3D printing, Al<sub>2</sub>O<sub>3</sub>-reinforced polymer composite, mechanical properties, machine learning.



## ÖZET

Eklemeli imalat, halihazırda havacılık, tıbbi uygulamalar, inşaat ve biyomalzemeler dahil olmak üzere birçok sektörde uygulanan bir üretim yöntemidir. Bu yöntemde malzemenin şeklini alan kalıpların kullanılmasına gerek kalmaz. Eklemeli imalat alanında kullanılan başlıca cihazlar üç boyutlu yazıcılardır. 3D yazıcıların çeşitli türleri arasında günümüzde en yaygın olarak kullanılanlar, fotokimyasal olarak da bilinen dijital ışık işleme (DLP) ve stereolitografi (SLA) yöntemleridir. Yukarıda bahsedilen iki yöntemde, başlangıç malzemesi olarak ışığa duyarlı reçinelerin polimerizasyonu kullanılır, katmanlar oluşturmak için UV ışığından yararlanır ve sonuçta nihai katı ürün elde edilir.

Literatür incelendiğinde 3D yazıcılarla üretilen epoksi/akrilat esaslı seramik takviyeli kompozitlerin çeşitli özellikleri üzerine çalışmaların olduğu ortaya çıkmıştır. Ancak kullanılan seramik katkı maddesinin malzemelerin çekme ve eğilme mukavemetlerine etkisi ve bunların makine öğrenmesi analizleri konusunda yeterli araştırma olmadığı tespit edilmiştir. Ayrıca makine öğrenmesi tekniklerinin deneysel yükü hafifletmek amacıyla yeterince araştırılmadığı tespit edilmiştir. Bu çalışmanın amacı da, epoksi/akrilat esaslı reçinede farklı oranlarda (ağırlıkça %0, %0,25, %0,50 ve %1,0) Al<sub>2</sub>O<sub>3</sub> katkısının kompozitlerin mekanik özelliklerine etkisinin araştırılması, elde edilen sonuçların makine öğrenmesi ile analiz edilmesi ve makine öğrenmesi teknikleri kullanılarak karşılaştırılmasıdır.

Çalışma kapsamında farklı oranlarda Al<sub>2</sub>O<sub>3</sub> ile güçlendirilmiş kompozit numuneler SLA tabanlı 3 boyutlu yazıcı kullanılarak sırasıyla ASTM D 638 ve D 790 standardına uygun çekme ve üç nokta eğilme test numuneleri olarak üretildi. Numuneler UV ışığı altında 60 dakika süreyle kürlendi. Numunelere çekme testi ve XRD analizi yapıldı ve mekanik test sonuçları makine öğrenmesi ile modellendi. Deneysel sonuçlar, %0,25-%0,5 Al<sub>2</sub>O<sub>3</sub> oranlarında mekanik özelliklerde iyileşme gözlemlendiğini, bu oranın üzerindeki takviyelerde ise özelliklerde azalma tespit edildiğini göstermiştir. Son olarak doğrusal olmayan ilişkiler sergileyen veriler üzerinde yapılan makine öğrenmesi çalışmasında karar ağacı modelinin doğrusal regresyon modeline göre daha doğru sonuçlar verdiği belirlendi.

**Anahtar Kelimeler:** 3D baskı, Al<sub>2</sub>O<sub>3</sub>-takviyeli polimer kompozit, Mekanik özellikler, Makine Öğrenimi.

**CLIMATE-SMART FERTILISATION PRACTICES: ENHANCING RESILIENCE  
AND SUSTAINABILITY IN AGRICULTURE**

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**Abstract**

In light of the challenges currently facing the agricultural sector, including rapid population growth and climate change, there is an urgent need for the implementation of sustainable and efficient farming practices. The concept of Climate-Smart Agriculture (CSA) has been developed as a strategic approach to address the aforementioned challenges. The objective of CSA is to enhance agricultural productivity while simultaneously mitigating the impacts of climate change and increasing the resilience of farming systems. In this context, climate-smart fertilisation practices emerge as a pivotal element of CSA. Climate-smart fertilisation provides more sustainable and environmentally friendly alternatives to traditional fertilisation methods. The objective of these practices is to optimise the efficient utilisation of plant nutrients, thereby increasing agricultural productivity and reducing greenhouse gas emissions. For example, the precise timing and application of fertilisers ensure that plants receive the necessary nutrients in the most efficient manner, thereby enhancing both crop quality and yield.

Another significant strategy is the use of organic and biological fertilisers. The application of organic fertilisers has been demonstrated to enhance soil health by enhancing its biological activity and reducing the need for chemical fertilisers in the long run. The use of biological fertilisers containing microorganisms facilitates more effective nutrient uptake by plants while preserving the natural structure of the soil. This has the additional benefit of preventing soil erosion and increasing its water retention capacity. Furthermore, climate-smart fertilization practices can be supported by precision agriculture technologies. Precision agriculture utilizes soil and plant sensors, GPS, and satellite imaging technologies to determine the specific nutrient needs of crops and optimize fertilizer applications. This approach minimizes fertilizer usage while ensuring that plants receive the exact nutrients they require. These technologies also help reduce the environmental impacts of fertilization, contributing to the protection of water. In addition to technological advancements, integrated nutrient management constitutes a vital component of climate-smart fertilisation. This approach combines organic and inorganic fertilisers in order to ensure a balanced supply of nutrients and to promote long-term soil fertility. The maintenance of soil health and reduction of dependency on chemical inputs are key aspects of integrated nutrient management, which in turn supports sustainable farming practices.

In conclusion, climate-smart fertilisation practices play a critical role in making agricultural production sustainable and mitigating the adverse effects of climate change. These approaches

help the agricultural sector cope with future challenges while also promoting environmental sustainability. As a key element of CSA, climate-smart fertilisation contributes to resilient agricultural systems, ensuring food security and the well-being of farming communities.

**Keywords:** Fertilisation, CSA, soil productivity.

**PİPERAZİN VE 1-(2-AMİNOETİL)PİPERAZİN İÇEREN KARIŞIK LİGANTLI  
CIVA(II) SAKKARİN KOMPLEKSLERİNİN SENTEZİ, SPEKTROSKOPİK VE  
YAPISAL ÖZELLİKLERİ**

SYNTHESIS, SPECTROSCOPIC, THERMAL AND STRUCTURAL PROPERTIES OF  
MIXED LIGAND MERCURY(II) SACCHARIN COMPLEXES WITH PIPERAZINE AND  
1-(2-AMINOETHYL)PIPERAZINE

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**ÖZET**

Yapay tatlandırıcı olarak yaygın şekilde kullanılan sakkarin, çok fonksiyonlu ligand özelliği göstermesi nedeniyle, çok tercih edilen bir ligandır. Bu bileşiğin sodyum tuzu olan sodyum sakkarinat, suda çok yüksek oranda çözünür (20 °C’ de 830 g/L) ve gerek ligand olarak gerekse tatlandırıcı olarak kullanıma uygundur. Ligand olarak sodyum sakkarinat kullanıldığında, çözeltide ele geçen sakkarinat (sac) anyonu hem negatif yüklü N atomuna hem de CO ve SO<sub>2</sub> gruplarına sahiptir ve tüm bu donör kısımları ile metallerle koordine olabilmektedir. İkincil ligand olarak hacimli ligandlar kullanıldığında ise sac koordinasyona katılmaz ve koordinasyon küresinin dışında tamamlayıcı iyon olarak kalır. Sac ligandı mono-, di- ve polinükleer metal komplekslerini oluşturur. Literatürdeki karışık ligandlı metal sakkarinat komplekslerinde sac’ın farklı koordinasyon modları sergilediği görülmektedir. Sac’ın hangi koşullarda ne tür bağlanma şekli göstereceği hakkında sistematik bilgi ancak çok sayıda metal-sakkarinat kompleksinin sentezlenmesi ve yapılarının aydınlatılması ile mümkün olabilir. Bu çalışmada ikincil ligand olarak piperazin (ppz) ve 1-(2-aminoetil)piperazin (aepz) ligandları kullanılmıştır. Piperazin sahip olduğu N atomları ile metallerle tek dişli veya çift dişli olarak koordine olabilmektedir. Piperazin halkasına başka grupların bağlanmasıyla ele geçen piperazin türevlerinde bağlı bulunan grup donör atoma sahip, bu grup da koordinasyona katılmaktadır. Bu çalışmada sakkarinatla birlikte piperazin ve 1-(2-aminoetil)piperazin içeren karışık ligandlı Cıva(II) komplekslerinin sentezlenmesi ve yapılarının çeşitli tekniklerle aydınlatılması amaçlanmıştır.

Kompleksler [Hg(sac)<sub>2</sub>] ile piperazin ve 1-(2-aminoetil)piperazin ligandlarının tepkimesi sonucu sentezlenmiştir. Bu komplekslerin yapıları, elementel analiz, IR, UV-VIS, manyetik duyarlılık ölçümleri ve termik analiz metotlarıyla aydınlatılmıştır. [Hg(sac)<sub>2</sub>(ppz)]<sub>n</sub> kompleksinde sac ligandının N atomu üzerinden tek dişli olarak koordine olduğu, ppz ligandının ise N atomları üzerinden iki Hg(II) arasında köprü koordinasyonu gerçekleştirdiği önerilmiştir. [Hg(sac)<sub>2</sub>(aepz)<sub>2</sub>] kompleksinde ise sac ligandının karbonil O atomu üzerinden tek dişli olarak koordine olduğu, aepz ligandının ise halka ve aminoetil N atomlarını kullanarak çift dişli ligand olarak davrandığı önerilmiştir.

**Anahtar Kelimeler:** Sakkarin kompleksleri, Piperazin, 1-(2-aminoetil)piperazin.

**ABSTRACT**

Saccharin, widely used as an artificial sweetener, is a highly preferred ligand due to its multifunctional ligand properties. The sodium salt of this compound, sodium saccharinate, is highly soluble in water (830 g/L at 20°C) and is suitable for use both as a ligand and as a sweetener. When sodium saccharinate is used as a ligand, the saccharinate (sac) anion obtained in solution possesses a negatively charged N atom, as well as CO and SO<sub>2</sub> groups, and can

coordinate with metals through all these donor parts. When bulky ligands are used as secondary ligands, sac does not participate in coordination and remains as a complementary ion outside the coordination sphere. The sac ligand forms mono-, di-, and polynuclear metal complexes. In mixed-ligand metal saccharinate complexes in the literature, it is seen that sac exhibits different coordination modes. Systematic information about the binding modes of sac under various conditions can only be obtained by synthesizing a large number of metal-saccharinate complexes and elucidating their structures. In this study, piperazine (ppz) and 1-(2-aminoethyl)piperazine (aepz) ligands were used as secondary ligands. Piperazine can coordinate with metals either monodentately or bidentately through its N atoms. In piperazine derivatives obtained by attaching other groups to the piperazine ring, if the attached group has a donor atom, this group also participates in the coordination. In this study, it was aimed to synthesize mixed-ligand Mercury(II) complexes containing saccharinate with piperazine and 1-(2-aminoethyl)piperazine and to elucidate their structures using various techniques.

The complexes were synthesized by the reaction of  $[\text{Hg}(\text{sac})_2]$  with piperazine and 1-(2-aminoethyl)piperazine ligands. The structures of these complexes were elucidated using elemental analysis, IR, UV-VIS, magnetic susceptibility measurements, and thermal analysis methods. In the  $[\text{Hg}(\text{sac})_2(\text{ppz})]_n$  complex, it is proposed that the sac ligand coordinates monodentately through its N atom, while the ppz ligand achieves bridging coordination between two Hg(II) atoms through its N atoms. In the  $[\text{Hg}(\text{sac})_2(\text{aepz})_2]$  complex, it is proposed that the sac ligand coordinates monodentately through its carbonyl O atom, while the aepz ligand acts as a bidentate ligand using both the ring and aminoethyl N atoms.

**Keywords:** Saccharin Complexes, Piperazine, 1-(2-aminoethyl)piperazine.

**LATEST PROGRESS OF DEEP-SEA POLYMETALLIC NODULE MINING  
TECHNOLOGY- A REVIEW**

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**Abstract**

Deep-sea polymetallic nodules (PMN) are an enormously large mineral resource and are rich in the metals used in new energy batteries, such as nickel (1.25–1.5%), cobalt (0.2–0.25%), manganese (27–30%), and copper (1–1.4%). PMN have tremendous potential for commercial development, but these nodules are several centimeters in size and are formed at the sediment surface at 4000–6000 m in water deep. These minerals are found in extreme environmental conditions as a result, the extraction technology methods, technology, and equipment from the terrestrial mining industry cannot be applied to nodule mining directly there. In addition, the methods and techniques for nodule mining are clearly different from those used in marine oil and gas extraction. Researchers have been exploring and studying mining technology from decades. Lot of studies are being reported on equipment for harvesting deep-sea polymetallic nodules. This paper reviews the current state of PMN research, introduces the latest developments in research, and looks ahead to future trends and developments of PMN.

**Keywords: Deep-sea, Polymetallic nodules (PMN), mining, latest progress, research**

**YÜKSEĞE ÇIKARMA SU POMPALARINDA ELEKTROMANYETİK EK ENERJİNİN KULLANILMASININ NÜMERİK ve DENEYSEL OLARAK İNCELENMESİ**

NUMERICAL AND EXPERIMENTAL ANALYSIS OF USE OF ELECTROMAGNETIC ADDITIONAL ENERGY ON HIGH LIFTER PUMPS

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**ÖZET**

Pompalar; herhangi bir akışkanı bir yerden başka bir yere aktarmaya yarayan, başka bir kaynaktan aldığı enerjiyi dönüştürerek, akışkanlara hidrolik enerji olarak veren makinelerdir. Yüksekçe çıkarma (High Lifter) su pompaları, ek enerji gereksinimi duymadan, belli bir düşü yüksekliğine sahip akarsuların suyunun daha yüksekçe basılması için kullanılan pompalardır. Fakat bu pompaların verimliliği düşü yüksekliğine bağlı olarak değıştiği için, beklenen verim elde edilemediğinde, güneş enerjisi ile elde edilen elektrik enerjisini kullanan dalgıç pompa sistemi (PDP) ve dizel jeneratör ile elde edilen elektrik enerjisini kullanan santrifuj pompa (DJSP) sistemleri günümüzde alternatif olarak kullanılmaktadır.

Bu çalışmada, yüksekçe çıkarma su pompasına (YÇP), elektromanyetik güç eklenmesi düşünülerek, veriminin artırılması konusu araştırılmıştır.

Bu amaçla, ilk olarak geçmişte kullanımı çok yaygın olan su koçu pompaları analitik olarak incelenmiştir. Günümüzde kullanılan YÇP sistemleri, deneysel ve nümerik olarak ele alınarak su koçu pompaları ile kıyaslanmıştır. Ardından, YÇP sistemine elektromanyetik güç eklenmiş (MYÇP) ve geliştirilen yeni sistem kıyaslanmak üzere deneysel ve nümerik olarak incelenmiştir.

**Anahtar kelimeler:** Yüksekçe çıkarma (High Lifter) su pompası, Su koçu pompası, Flow 3d, Elektromanyetik güç

**ABSTRACT**

Pumps are machines that are used to changing position of any fluid, transforming the energy received from another source and giving it to the fluids as hydraulic energy. High lifter pumps are pumps used to elevate the water of streams with a certain head higher without requiring additional energy. Since the efficiency of these pumps varies depending on the head height, when the expected efficiency cannot be achieved, submersible pump systems that use electrical energy gained from solar energy and centrifugal pump systems that use electrical energy obtained from diesel generators are used as alternatives today. In this study, the issue of increasing the efficiency of the high lifter pump by adding electromagnetic power was investigated. For this purpose firstly, water ram pumps, which were used much in the past, were analyzed analytically. The high lifter pump systems used today were examined experimentally and numerically and compared with water ram pumps. Secondly, with electromagnetic power added to the high lifter pump system and the new developed system were examined experimentally and numerically to compare.

**Keywords:** High Lifter Water Pump, Ram Pump, Flow3d, Electromagnetic Power,

**OKUL ÖNCESİ ÖĞRETMENLERİNİN YARATICI DÜŞÜNME EĞİLİMLERİ İLE  
EĞİTİM TEKNOLOJİLERİNE YÖNELİK İNANÇLARININ İNCELENMESİ**  
AN INVESTIGATION OF PRESCHOOL TEACHERS' CREATIVE THINKING  
TENDENCIES AND BELIEFS TOWARDS EDUCATIONAL TECHNOLOGIES

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**ÖZET**

21. yy becerileri arasında yer alan yaratıcılık, bireyin deneyimlerini yeni bir durum karşısında özgün bir formda sunabilmesini sağlamaktadır. Yaratıcılık becerisi diğer becerileri tamamlayan ve destekleyen bir beceridir. Yaratıcı düşünme öğretmenlerin eğitim ortamlarını farklılaştırarak ihtiyaca uygun bir biçimde eğitimi şekillendirebilmesini destekleyecektir. Günümüzde teknoloji eğitim ortamlarına hızla entegre olmaktadır ve bu durum kaçınılmaz bir hal almaktadır. Öğretmenlerin yaratıcı düşünme eğilimleri ile eğitim teknolojilerine yönelik inançları arasında bir ilişki olabileceği düşünülmektedir. Bu çalışmanın amacı okul öncesi öğretmenlerinin yaratıcı düşünme eğilimleri ile eğitim teknolojilerine yönelik inançları arasındaki ilişkiyi incelemektir. Çalışma ilişkisel tarama modelindedir. Çalışmaya 248 okul öncesi öğretmeni katılım sağlamıştır. Çalışmanın bulguları “Kişisel Bilgi Formu”, “Marmara Yaratıcı Düşünme Eğilimleri Ölçeği” ve “Okul Öncesi Öğretmenlerinin Eğitim Teknolojilerine İlişkin İnanç Ölçeği” aracılığı ile toplanmıştır. Kişisel bilgi formunda öğretmenlerin yaşı, medeni hali, çocuk sahibi olup olmamaları, öğrenim durumu, sınıf mevcutları, çalıştıkları kurum türleri ve yaşadıkları bölgelere yönelik sorulara yer verilmiştir. Çalışmada veri analizi yöntemi olarak ANOVA ve Pearson Korelasyon testi kullanılmıştır. Bulgular doğrultusunda öğretmenlerin eğitim düzenlerine ve çalıştığı kurum türüne göre çeşitli alt boyutlarda istatistiksel olarak anlamlı bir farklılık olduğu söylenebilir. Bununla birlikte ölçeklerin genelinde ve alt boyutlar arasında farklı düzeylerde istatistiki olarak anlamlı ilişkilerin olduğu da bulgular arasındadır. Bu çalışma kapsamında çalışmanın farklı örneklem grupları ile tekrar gerçekleştirilmesi, öğretmenlerin yaratıcılıklarını teknoloji ile entegre bir biçimde deneyimleyebilecekleri eğitimlere katılmaları önerilmektedir.

**Anahtar Kelimeler:** Yaratıcılık, Yaratıcı düşünme, Eğitim teknolojileri, Okul öncesi eğitim

**ABSTRACT**

Creativity, which is among 21<sup>st</sup> century skills, enables the individual to present the knowledge and experiences in a unique form in a new situation. Creativity is a skill and ability to support other skills. Creative thinking differentiates educational environments and enables them to be shaped according to needs. Nowadays, technology is rapidly integrated into educational environments and this situation is inevitable. There may be a relationship between teachers' creative thinking processes and their beliefs about educational technologies. The purpose of this study is to examine the diversity between creative thinking processes and beliefs about educational technologies in pre-school planning. The study is in the relational screening model. 248 preschool teachers participated in the study. The effectiveness of the study was collected through the "Personal Information Form", "Marmara Creative Thinking Tendencies Scale" and "Preschool Teachers' Beliefs on Educational Technologies Scale". Examples of personal information are given regarding their age, marital status, whether they have children or not, their current status, current classes, types of institutions they work in and the regions they live



in. ANOVA and Pearson Correlation test were used as data analysis methods in the study. Regarding the findings, it is strong that there is a significant difference in various sub-dimensions depending on the educational regime and the type of institution. However, it is also found that there are statistically significant values at different levels between the general scale and its sub-dimensions. It is important to carry out this work again with different parts and to participate in trainings where they can experience regional innovations integrated with technology.

**Keywords:** Creativity, Creative thinking, Educational technologies, Early childhood education

## AA6082 ALAŞIMININ 5183 VE 5356 KAYNAK TELLERİNİN KULLANILARAK TIG KAYNAĞI SONUCU MALZEME ÖZELLİKLERİNİN İNCELENMESİ

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### Özet

Alüminyum ve alüminyum alaşımları havacılık ve uzay, sağlık endüstrisi, otomotiv, elektrik ve elektronik gibi pek çok alanda kullanım alanına sahip olan malzemelerdir ve endüstride kaynaklı bağlantı yapılarak kullanılmaktadır. Alüminyumun iletkenlik özelliği, katılma aralığının genişliği ve korozyon direncinin yüksek olması kaynak sırasında yüzeyde oksit tabakasının oluşmasına ve gözenek oluşumu meydana getirmekte olup kaynağı zor ve sorunludur. Bu nedenle kaynak işlemleri için araştırılması önem teşkil etmektedir. Alüminyum alaşımlarının kaynak işlemlerinde genellikle gaz altı ark kaynak yöntemleri kullanılmaktadır. Bu çalışmada pek çok alanda kullanım alanına sahip 6082 alaşımının TIG kaynak yöntemiyle kaynak edilmesi ve sonrasında oluşan mekanik ve metalurjik değişimlerinin incelenmesi amaçlanmıştır. Çalışma doğrultusunda tercih edilen alüminyum alaşımı iki farklı tel (5183 ve 5356) ve tek akım (110A) değeri kullanılarak yapılmıştır.

**Anahtar Kelimeler:** Gazaltı kaynağı, Alüminyum, 6082

## INVESTIGATION OF MATERIAL PROPERTIES OF AA6082 ALLOY AS A RESULT OF TIG WELDING USING 5183 AND 5356 WELDING WIRES

### Abstract

Aluminum and aluminum alloys are materials that have many areas of use such as aviation and space, health industry, automotive, electrical and electronics and are used in the industry by making welded connections. The conductivity of aluminum, the wide solidification range and the high corrosion resistance cause the formation of an oxide layer on the surface and porosity during welding, and its welding is difficult and problematic. Therefore, it is important to investigate it for welding processes. In welding processes of aluminum alloys, gas metal arc welding methods are generally used. In this study, it is aimed to weld the 6082 alloy, which has many areas of use, by TIG welding method and to investigate the mechanical and metallurgical changes that occur afterwards. The aluminum alloy preferred in the study was made using two different wires (5183 and 5356) and a single current (110A) value.

**Keywords:** Gas metal arc welding, Aluminum, 6082

## TIG KAYNAĞI YÖNTEMİYLE 5083 MALZEMESİNİN KAYNAK KABİLİYETİNİN İKİ FARKLI TEL İLE İNCELENMESİ

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### Özet

Alüminyum ve alaşımlarının avantajlı özellikleri nedeniyle günümüzde neredeyse hayatın her alanında kullanım alanına sahip olmasını sağlamaktadır. Hafifliklerinin yanı sıra mukavemetlerinin iyi düzeyde olması, korozyon dirençlerinin yüksek olması ve geri dönüştürülebilirlik özelliklerinin sebebiyle otomotiv endüstrisinden savunma ve havacılık endüstrisine, denizcilikten mutfak gereçlerine kadar pek çok alanda kullanım alanına sahiptir. 5xxx serisi alüminyum alaşımları korozyon direncinin yüksek düzeyde olması nedeniyle genellikle deniz suyu ortamına maruz kalan kayıkların kaportaları ve iskelelerinde kullanılmaktadır. Ancak, yüksek düzeyde magnezyum elementi nedeniyle alüminyum malzemelerde gerilme ve korozyon çatlaklarına neden olabileceği sebebiyle soğuk işlem miktarıyla ve çalışma sıcaklığı hassasiyetinin önlenmesi amacıyla çalışma sıcaklığı 150 °F olarak kısıtlanmıştır. Bu nedenle kaynak işlemlerinde incelenmesi gereken malzemelerdir. Bu çalışmada 5083 alüminyum alaşımının TIG kaynağı yöntemiyle kaynak işlemi iki farklı tel kullanılarak yapılmıştır. Kaynak işlemi sonrası penetrasyon testi, çekme deneyi ve kaynak bölgesinin mikroyapıları incelenmiştir.

**Anahtar Kelimeler:** TIG kaynağı, 5083, Çekme deneyi

## INVESTIGATION OF WELDING CAPABILITY OF 5083 MATERIAL WITH TIG WELDING METHOD WITH TWO DIFFERENT WIRES

### Abstract

Due to the advantageous properties of aluminum and its alloys, they are used in almost every area of life today. In addition to their lightness, their good strength, high corrosion resistance and recyclability, they have many areas of use from the automotive industry to the defense and aviation industry, from marine to kitchenware. 5xxx series aluminum alloys are generally used in the bodywork and piers of boats exposed to seawater due to their high corrosion resistance. However, due to the high level of magnesium element, the working temperature is limited to 150 °F in order to prevent the amount of cold work and the sensitivity of the working temperature, since it can cause stress and corrosion cracks in aluminum materials. For this reason, they are materials that need to be examined in welding processes. In this study, the welding process of 5083 aluminum alloy was carried out using two different wires with the TIG welding method. After the welding process, the penetration test, tensile test and microstructures of the weld area were examined.

**Keywords:** TIG welding, 5083, Tensile test

**KEÇİLERDE ETİKET DIŐI FLORFENİKOL KULLANIMI**  
**EXTRA-LABEL USE OF FLORFENICOL IN GOATS**

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**ÖZET**

Florfenikol, amfenikol grubu geniş etki spektrumlu antibiyotiktir. İlaçta hedef tür olarak sığır ve koyunlar tanımlanmıştır. Etki spektrumu dikkate alındığında hedef türlerde özellikle solunum sistemi enfeksiyonlarının tedavisinde kullanılmaktadır. Ancak anerob bakterilere ve mycoplasma türlerinde etkinlięi de bulunduęu için ayak enfeksiyonları ve mycoplasma kaynaklı enfeksiyonların tedavisinde de tercih edilebilmektedir. Florfenikolün klinik etkinlięi dikkate alındığında, veteriner hekimlerce etiket dıŐı olarak keçilerde de kullanılabilir. Bu bildiride keçilerde florfenikol kullanımını hakkında bilgiler verilmeye çalışılmıştır.

**Anahtar kelimeler:** Florfenikol, keçi, etiket dıŐı.

**EXTRA-LABEL USE OF FLORFENICOL IN GOATS**

**ABSTRACT**

Florfenicol is a broad-spectrum antibiotic from the amphenicol group. Cattle and sheep have been identified as target species for the drug. Considering its spectrum of action, it is used especially in the treatment of respiratory system infections in target species. However, since it is also effective against anaerobic bacteria and mycoplasma species, it can also be preferred in the treatment of foot infections and mycoplasma-related infections. Considering the clinical effectiveness of florfenicol, it can also be used extra-label by veterinarians in goats. In this report, it can try to give information about the use of florfenicol in goats.

**Keywords:** Florfenicol, goat, extra-label.

**YAN ETKİ OLARAK KLOSANTEL KAYNAKLI KÖRLÜK**  
**CLOSANTEL-INDUCED BLINDNESS AS A SIDE EFFECT**

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**ÖZET**

Klosantel sığır ve koyunlarda karaciğer kelebeği, haematophagous nematodlar ve artropodların larva formlarına etkili bir antihelmentik ilaçtır. İlaç parazitlerde enerji metabolizmasını bozarak etki gösterebilmektedir. İlacın dozunun 2.5-5 mg/kg deri altı (SC) veya 10 mg/kg oral (PO) olduğu bildirilmiştir. Veteriner sahada klosantelin tek başına veya bazı antiparaziter ilaçlar ile kombine preparatları bulunmaktadır. Klosantelin körlük dahil bazı ciddi yan etkileri bildirilmiştir. Bu bildiri klosantelin hayvanlar ve insanlarda körlük dahil yan etkileri ve tedavi seçenekleri hakkında bilgiler verilmeye çalışılmıştır.

**Anahtar kelimeler:** Klosantel, körlük, antiparaziter.

**ABSTRACT**

Closantel is an effective anthelmintic drug against liver flukes, haematophagous nematodes and the larval forms of arthropods in cattle and sheep. The drug may act by disrupting the energy metabolism in parasites. The dose of the drug has been reported to be 2.5-5 mg/kg subcutaneously (SC) or 10 mg/kg orally (PO). In the veterinary field, closantel preparations are available alone or in combination with some antiparasitic drugs. Some serious side effects of closantel, including blindness, have been reported. In this report, it can be tried to give information about the side effects of closantel in animals and humans, including blindness, and treatment options.

**Keywords:** Closantel, blindness, antiparasiter.

**GOVERNMENT PRUDENTIAL SUPERVISION OF PRIVATE INSURANCE  
COMPANIES IN THE EU  
- THE ISSUE OF RELEVANT SCIENTIFIC RESEARCH METHODS**

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**Abstract**

Regional financial market of Europe is to become common financial market of the European Union, and regional insurance market of Europe is to become common insurance market of the European Union, respectively. Insurance providers in the EU are to cover risks in the economy of the EU in a profitable yet client-friendly and compliant way and at the same time are expected to preserve the amount and purchase power of client funds, i.e. technical reserves. In order to check whether there are any obstacles to the European insurance market convergence process we, first, analyze whether the web of insurance supervisors (i.e. at least one from every Member State) is enough or, second, the formation of ESAs (European Supervisory Authorities) with EIOPA included in 2011 was indispensable not only for the retail customers but also for the market players at wholesale level. Thirdly, we build our argumentation around the fact that the main element of the mandate of the ESAs and EIOPA is to prevent future crisis and related to this topic elaborate the supervisory tools of ESA, EIOPA and Member State's supervision. The aforementioned structure of our paper requires to include detailed how the EU insurance supervision had been formed and what are the current critics. Our paper is to analyze the formation process of the current set of institutions and principles of EU common insurance supervision. The main findings of our paper are relevant not only for the EU insurance market participants but also for their US counterparts.

*Keywords: Insurance, Governance, Supervision, European Union, Public Administration*

**THE INVOLVEMENT OF INFORMATION TECHNOLOGIES IN THE  
DEVELOPMENT OF INTERNATIONAL RELATIONS**

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**ABSTRACT**

Today, we can say that the state's ability to defend national interests, preserve the sovereignty and territorial integrity of the country - to achieve strategic superiority in the sphere of international relations - depends on its capabilities in the information sphere.

As a result of the information revolution and the globalization of the entire informational space, there is a direct opportunity to access both the geographical and sociocultural spheres of the state from a single information communications space. In this context, the informational society demonstrates its disadvantage. We are no longer just talking about convergence and the search for compromises and common points of interest in the name of global development, but about the state's capabilities to implement its national strategic priorities in foreign policy through the lens of modern informational technologies.

The aim of this work is to identify the involvement of modern informational technologies in the development of international relations between different states in the context of rapid advancements in artificial intelligence.

Key terms: informational technologies, international relations, artificial intelligence.

**UTILIZATION OF GREEN-SYNTHEZED ZINC OXIDE NANOPARTICLES  
FROM OLIVE LEAF EXTRACT FOR DYE REMOVAL FROM WASTEWATER**  
ZEYİN YAPRAĞI ÖZÜTÜ İLE YEŞİL SENTEZLENMİŞ ÇİNKO OKSİT  
NANOPARTİKÜLLERİNİN ATIKSULARDAN RENK GİDERİMİNDE KULLANIMI

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**ABSTRACT**

In recent years, nanoparticles have garnered significant attention in science and technology. Their high surface area and unique physical and chemical properties enable their application across diverse sectors, including medicine, electronics, energy, and environmental industries. The importance of nanoparticles is further enhanced by their ability to acquire different functionalities through surface modifications. Traditional nanoparticle synthesis methods offer advantages such as scalability and morphological control. Unfortunately, these techniques frequently use hazardous chemicals, endangering both the environment and human health. Consequently, there is an increasing need for environmentally friendly and sustainable production methods. Green synthesis methods address this need by utilizing biological sources like plants, algae, and microorganisms for nanoparticle production. These methods offer low-cost, energy-efficient, and eco-friendly alternatives.

This study focuses on the green synthesis of zinc oxide nanoparticles (OL-ZnO-NPs) using olive leaf extract, which is abundant in the Mediterranean region. Olive leaf extract was chosen as an ideal biological source due to its natural antioxidants and biologically active compounds. The objective of this research is to investigate the effectiveness of these green-synthesized OL-ZnO-NPs in the removal of dye from wastewater. Wastewater treatment is crucial for preventing the release of industrial dyes into the environment. The effect of zinc oxide nanoparticles on the photodegradation of crystal violet dye was tested at various concentrations (0.05-0.5 g/100 mL) under specific lighting conditions (daylight-18 W, 1700 lumens). The findings have shown that OL-ZNO-NPs produced with green synthesis have 75 % efficiency in the photodegradation of crystal violet dye in 0.25 g/100 mL concentration and can be used as an effective photocatalizer. These results suggest that utilizing green-synthesized nanoparticles in wastewater treatment offers an eco-friendly and sustainable solution.

**Keywords:** Dye removal, Green Synthesis, Nanoparticle, Olive leaf, Photodegradation, Zinc oxide

**ÖZET**

Nanopartiküller, son yıllarda bilim ve teknoloji alanında büyük bir ilgi odağı haline gelmiştir. Yüksek yüzey alanı, özgün fiziksel ve kimyasal özellikleri nedeniyle bu malzemeler, tıp, elektronik, enerji ve çevre gibi çeşitli sektörlerde geniş bir uygulama yelpazesine sahiptir. Nanopartiküllerin önemini artıran bir diğer faktör ise, küçük boyutlarının yanı sıra yüzeylerinde



gerçekleştirilebilecek modifikasyonlar sayesinde farklı işlevler kazandırılabilirlerdir. Geleneksel yöntemlerle nanopartikül üretimi, ölçeklenebilirlik ve morfolojik kontrol gibi avantajlar sunmasına rağmen, bu yöntemler genellikle toksik kimyasallar kullanır ve hem insan sağlığına hem de çevreye zarar verebilir. Bu nedenle, çevre dostu ve sürdürülebilir üretim yöntemlerine olan ihtiyaç giderek artmaktadır. Yeşil sentez yöntemleri, bu ihtiyacı karşılamak amacıyla geliştirilmiş olup, bitkiler, algler ve mikroorganizmalar gibi biyolojik kaynakları kullanarak nanopartikül üretimini mümkün kılar. Bu yöntemler, düşük maliyetli, enerji tasarruflu ve çevreye zarar vermeyen alternatifler sunar.

Bu çalışmada, zeytin yaprağı özütü kullanılarak çinko oksit nanopartikülleri (ZY-ZnO-NP) yeşil sentez yöntemiyle üretilmiştir. Zeytin yaprağı, doğal antioksidanlar ve biyolojik olarak aktif bileşikler içermesi nedeniyle ideal bir biyolojik kaynak olarak seçilmiştir. Çalışmanın amacı, bu yeşil sentezle üretilen ZY-ZnO-NP'lerin atıksulardan renk giderimindeki etkinliğini incelemektir. ZnO-NP'lerin kristal menekşe boyasının foto bozunması üzerindeki etkisi, farklı konsantrasyonlarda (0,05-0,5 g/100 mL) ve özel aydınlatma koşullarında (gün ışığı-18 W, 1700 lümen) test edilmiştir. Elde edilen bulgular, yeşil sentezle üretilen OL-ZnO-NP'lerin 0,25 g/100 mL derişiminde kristal menekşe boyasının foto bozunmasında %75 giderim verimine sahip olduğunu ve etkili bir fotokatalizör olarak kullanılabileceğini göstermiştir. Bu sonuçlar, yeşil sentezle üretilen nanopartiküllerin atıksu arıtımında kullanılmasının, çevre dostu ve sürdürülebilir bir çözüm sunduğunu ortaya koymaktadır.

**Anahtar Kelimeler:** Boya giderimi, Fotodegradasyon, Nanopartikül, Yeşil Sentez, Zeytin Yaprağı

**ÇİNKO OKSİT NANOPARTİKÜLLERİNİN TURUNÇ KABUĞU ÖZÜTÜ İLE  
SENTEZİ VE KRİSTAL VİYOLE FOTODEGREDASYONUNDAKİ ETKİNLİĞİ  
SYNTHESIS OF ZINC OXIDE NANOPARTICLES WITH BITTER ORANGE PEEL  
EXTRACT AND EFFECTIVENESS IN CRYSTAL VIOLET PHOTODEGRADATION**

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**ÖZET**

Son yıllarda nanoteknoloji alanında yapılan araştırmaların çoğu yeni ve sürdürülebilir ürünlerin oluşturulmasına yönelmiştir. Bu ürünler boyutları dolayısı ile nanomateryal olarak sınıfta yer almakla birlikte işlevsellikleri ve karakteristiklerinde etkili olan temel parametreler bu malzemelerin morfolojisi ve geometrisidir. Bu malzemelerin termal, iletkenlik, optik ve bariyer oluşturma gibi özelliklerinden dolayı günümüzde hemen hemen her sektörde uygulamaları görülmektedir. Nano boyutlu malzemeler birçok yolla sentezlenebilmekle birlikte, temelde iki ana kategoriye ayrılabilir. Bu metotlar geleneksel yöntemler ve yeşil yöntemler olarak tanımlanabilir. Geleneksel nanomateryal sentez yöntemlerinin kullanılmasının geniş uygulama alanları için çeşitli nanopartiküller üretmek, ölçeklenebilirlik, morfoloji üzerinde kontrol edilebilirlik gibi pek çok cazip faydası mevcuttur. Ancak bu yöntemlerin pek çok olumsuz etkilerinin olduğu da inkâr edilemez. Özellikle hem sentezi yapan kişi hem de çevre üzerinde geri dönüşü olmayan riskler barındırmaktadır. Tüm bu negatif etkilerin üstesinden gelebilmek adına yeşil sentez metodu geliştirilmiştir. Bu yöntemde bitki, alg, mikroorganizma gibi biyolojik materyallerden faydalanılmaktadır. Bu çalışmada, Akdeniz Bölgesinde yaygın olarak bulunan turunç meyvesi kabuğu özütü kullanılarak çinko oksit nanoparçacıklarının yeşil sentez yöntemiyle üretilmesi ve üretilen bu nanopartiküllerin (T-ZnO-NP) kristal viyole boyasının fotodegradasyonunda etkinliğinin araştırılması amaçlanmıştır. T-ZnO-NP'leri farklı konsantrasyonlarda (0,05-0,1-0,25-0,5 g/100 mL) özel lambalar (gün ışığı-18 W, 1700 lümen) kullanılarak fotokatalitik boya bozunma işleminde denemiştir. Bulgular, yeşil sentezlenen T-ZnO-NP'lerin düşük konsantrasyonlarda bile kristal viyole boyasının fotodegradasyonunda etkili bir fotokatalizör olarak kullanılabileceğini göstermektedir.

**Anahtar Kelimeler:** Boya giderimi, Fotodegradasyon, Nanopartikül, Turunç, Yeşil Sentez

**ABSTRACT**

In recent years, most of the research in the field of nanotechnology has been directed towards the creation of new and sustainable products. Although these products are classified as nanomaterials due to their sizes, the main parameters that affect their functionality and characteristics are the morphology and geometry of these materials. Due to the properties of these materials such as thermal, conductivity, optical and barrier formation, their applications

are seen in almost every sector today. Although nanosized materials can be synthesized in many ways, they can basically be divided into two main categories. These methods can be defined as traditional methods and green methods. Using traditional nanomaterial synthesis methods has many attractive benefits, such as producing a variety of nanoparticles for a wide range of applications, scalability, and controllability over morphology. However, it cannot be denied that these methods have many negative effects. In particular, it poses irreversible risks to both the person performing the synthesis and the environment. In order to overcome all these negative effects, the green synthesis method has been developed. In particular, it poses irreversible risks to both the person performing the synthesis and the environment. In order to overcome all these negative effects, the green synthesis method has been developed. In this method, biological materials such as plants, algae, and microorganisms can be used. In this study, it was aimed to produce zinc oxide nanoparticles by green synthesis method using bitter orange fruit peel extract, which is widely found in the Mediterranean Region, and to investigate the effectiveness of these nanoparticles (T-ZnO-NP) in the photodegradation of crystal violet dye. T-ZnO-NPs were tried in the photocatalytic dye degradation process using special lamps (daylight-18 W, 1700 lumens) at different concentrations (0.05-0.1-0.25-0.5 g/100 mL). The findings show that green synthesized T-ZnO-NPs can be used as an effective photocatalyst in the photodegradation of crystal violet dye even at low concentrations.

**Keywords:** Bitter orange, Dye degradation, Green Synthesis, Nanoparticle, Photodegradation

**FLUID HORIZONS: THE SYMBOLISM OF WATER IN ARTHUR RIMBAUD'S  
'MEMORY' AND 'MOTION'**

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**ABSTRACT**

This paper displays the themes of transculturality and migration in Arthur Rimbaud's poems "Memory" ("Mémoire") and "Motion" ("Mouvement"), emphasizing the rich imagery of water and its mythological connotations. Rimbaud's use of water serves as a powerful symbol of the fluid and transformative nature of cultural and geographical movement. In "Memory," water symbolizes cultural amalgamation and the passage of time, invoking mythological references such as the river Styx to highlight the boundary between past and present, memory and oblivion. In "Motion," water is portrayed as a force of migration and perpetual change, resonating with mythological allusions to epic journeys and quests, akin to those of Odysseus or Aeneas. This analysis demonstrates how Rimbaud's water imagery transcends mere naturalistic depiction, creating a complex tapestry of mythological and transcultural motifs that reflect the poet's deep engagement with identity, displacement, and the ceaseless flow of human experience. Through this lens, Rimbaud's poetry emerges as a precursor to contemporary discussions on transculturality and migration, highlighting the enduring and universal nature of these themes.

**Keywords:** Arthur Rimbaud, Symbolism of Water, "Memory", "Motion", Transculturality, Migration, Mythological Imagery, Modernist Poetry.

**RISK CHOICE of LOCATION and IMPLEMENTATION of NUCLEAR POWER PLANTS (PLTN): NATIONAL ENERGY TREASURY**

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**ABSTRACT**

In an effort to improve the national energy resilience of Indonesia, a risk analysis is carried out on the location and use of the Nuclear Power Plant (PLTN) as a source of electricity. Currently, the need for alternative energy sources is increasing due to the limitations of coal resources used for power plants. PLTN is considered a relevant alternative. However, building PLTNs in areas vulnerable to earthquakes, such as Indonesia, poses significant risks to human lives and the environment. This research method involves the collection of secondary data on plate tectonics, risk on PLTN projects, risk probability tables, and risk impact tables. Quantitative methods are used in this study. Risk probability and risk impact calculations are carried out, and risk values are represented by the Boston quadratic matrix. Some PLTN locations are possible in Indonesia, such as Bangka Belitung, Central Java, East Kalimantan, and West Kalimantan. In conclusion, it is important to conduct a risk analysis before choosing a PLTN location to be used as an electricity source in Indonesia. To develop PLTN as a sustainable and environmentally friendly alternative energy source in the future, safe locations and appropriate risk mitigation strategies should be the primary concerns. This is important in the context of national energy sustainability.

Keywords: risk analysis, alternative energy

**METHANOLIC EXTRACTS OF "CRATAEGUS *MONOGYNA*, *MALUS SYLVESTRIS* AND *PISTACIA VERA L.*" HAVE A CELL MIGRATION EFFECT**

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**ABSTRACT**

**Introduction**

Cell migration is an adaptive process that depends on and responds to physical and molecular triggers. It is fundamental to establishing and maintaining the proper organization of multicellular organisms and is essential for appropriate immune response, wound repair, and tissue homeostasis in adult organisms.

Wound repair is the molecular mechanism that governs collective cell migration and remains largely inactive throughout life. However, when a tissue is injured, this mechanism attempts to restore living tissue by repairing the wound.

**Aim:**

The in vitro wound healing assay, also known as the scratch assay, is widely used to model cell migration in vivo. This study aimed to examine the effects of methanolic extracts of *Crataegus monogyna*, *Malus sylvestris*, and *Pistacia vera L.* (fresh peanut shell) plants on cell migration.

**Methods:**

The RPE-1 (Retinal Pigment Epithelial) cell lines were planted in 6-well plates to conduct the study. Once the cells reached 80% confluency, a straight line was drawn from 12 to 6 o'clock using a sterile pipette tip, creating a wound between the cells. The degree of wound closures and speeds were compared with the control groups to assess the cells' migration toward the wound area. Images were taken at 24 hours with an inverted microscope and evaluated comparatively.

**Results:**

At the end of the 24-hour application, the plant extracts increased the migration tendency of RPE-1 cells and reduced the migration time compared to the control cell groups.

**Conclusion:**

To investigate their wound healing effects, further studies can be conducted with these plants, which appear to have a migration effect on the healthy cell line RPE-1.

**Key Words:** *Crataegus monogyna*, *Malus sylvestris*, *Pistacia vera L.*, Wound Healing, Scratch Assay

## ÖZET

### Giriş

Hücre göçü, fiziksel ve moleküler tetikleyicilere bağlı olan ve bunlara yanıt veren adaptif bir süreçtir. Çok hücreli organizmaların uygun organizasyonunun kurulması ve sürdürülmesinde esastır ve yetişkin organizmalarda uygun bağışıklık tepkisi, yara onarımı ve doku homeostazisi için esastır. Yara onarımı, toplu hücre göçünü yöneten ve yaşam boyunca büyük ölçüde aktif olmayan moleküler mekanizmadır. Ancak bir doku yaralandığında bu mekanizma yarayı onararak canlı dokuyu onarmaya çalışır.

### Amaç:

Çizik deneyi olarak da bilinen in vitro yara iyileştirme deneyi, in vivo hücre göçünü modellemek için yaygın olarak kullanılır. Bu çalışmada *Crataegus monogyna*, *Malus sylvestris* ve *Pistacia vera* L. (taze fıstık kabuğu) bitkilerinin metanolik ekstraktlarının hücre göçü üzerindeki etkilerinin incelenmesi amaçlandı.

### Yöntemler:

Çalışmayı yürütmek için RPE-1 (Retina Pigment Epiteli) hücre hattı 6 oyuklu plakalara ekildi. Hücreler plakalarda % 80 konfluente ulaştığında, steril bir pipet ucu kullanılarak saat 12'den 6'ya kadar düz bir çizgi çizilerek hücreler arasında bir yara oluşturuldu. Hücrelerin yara alanına doğru göçünü değerlendirmek için yara kapanma derecesi ve hızları kontrol gruplarıyla karşılaştırıldı. Görüntüler 24 saatte ters mikroskopla çekilerek karşılaştırmalı olarak değerlendirildi.

### Sonuçlar:

24 saatlik uygulama sonunda bitki ekstraktlarının kontrol hücre gruplarına göre RPE-1 hücrelerinin migrasyon eğilimini arttırdığı ve migrasyon süresini kısalttığı görüldü.

Sonuç olarak; Sağlıklı hücre dizisi RPE-1 üzerinde migrasyon etkisi olduğu görülen bu bitkilerle yara iyileştirici etkilerinin araştırılması için ileri çalışmalar yapılabilir.

**Anahtar Kelimeler:** *Crataegus monogyna*, *Malus sylvestris*, *Pistacia vera* L., Yara İyileşmesi, Çizik Testi

**ALLELOPATHIC EFFECTS OF *Acacia nilotica* L. ON THE WILD WEEDS OF CHICKPEA**

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The use of herbicides has become a necessity to increase crop productivity by reducing labor-intensive hand weeding and supporting agricultural practices to keep up with the food supply demand. These herbicides and pesticides also affect non-target species such as animals, plants and humans. The slow degradation of herbicides, quick evaporation of their spray droplets and their run-off into waters cause their accumulation as pollutants in the environment. The allelopathic effect of *A. nilotica* leaf extracts was investigated against the growth of eight weed species growing native in the chickpea fields of Punjab Pkaistan. It is already reported that *A. nilotica* extracts have allelochemicals which show inhibitory as well as stimulating effects against the weed growth. In the present study leaf extracts of *A. nilotica* was utilized in concentrations of 25%, 50%, 75% and 100% in *In vitro* experiments and its powder form was used in pot experiments at the rate of 2g, 4g, and 8g per 8kg of soil. Data was recorded for the germination percentage, germination rate index, seed germination index, speed of germination, seedling vigor index, shoot length, root length, shoot and root length ratio, shoot dry weight, shoot fresh weight, shoot fresh and dry weight ratio, root fresh weight, root dry weight and root fresh and root dry ratio for the weeds. Results indicated that every specie was affected differently by different concentrations of extracts and by different amounts of powder applied to the weed variety. The application of leaf extracts of *A. nilotica* show inhibitory effect in four weed varieties i.e. *Carthamus oxyacantha*, *Eruca vesicaria*, *Amaranthus viridis* and *Cichorium incubus*. Whereas, *Ocimum basilicum*, *Cucumis melo* and *Melilotus indica* have shown stimulatory growth. 75% extract was proved to have quick and spontaneous stimulatory effect in five weeds and 25% extract showed sudden stimulatory effect in three weeds. *Trifolium repens* L. was not affected by any concentration of leaf extracts and it did not show any inhibitory or stimulatory effects. As herbicides the leaf extract of *A. nilotica* is suggested to control the growth of *C. oxyacantha*, *E. vesicaria*, *A. viridis* and *C. incubus*. Further studies is still needed to develop practical strategies for better weedicide practices.

**Keywords:** weedicides, growth stimulation, germination inhibition,



## A COMPREHENSIVE STUDY INTO THE ALIZARIN-BASED DYES FOR OPTIMISING SOLAR CELL PERFORMANCE

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### Abstract

Alizarin and purpurin constitute the primary chromogenic compounds within madder root. To enhance the extraction yield (%Rdt) from madder root, an optimization approach was employed, utilizing Response Surface Methodology (RSM) and Central Composite Design (CCD). This optimization considered three key factors: acid concentration, alkali concentration, and extraction time. The aim was to achieve a maximum yield of 91.8% under optimal conditions, characterized by an HCl concentration of 2.95, NaOH concentration of 2.95, and an extraction time of 1.25 hours.

In the realm of organic dye development, the optical, electronic, and structural characteristics of four novel alizarin-based dyes were explored. This investigation employed Density Functional Theory (DFT) and Time-Dependent Density Functional Theory (TD-DFT) to elucidate the influence of conjugation order on the efficacy of dye-sensitized solar cells (DSSC). The theoretical outcomes indicated that TD-DFT calculations, utilizing the B3LYP method in conjunction with the 6-31G (d,p) basis set, provided reasonable predictions for excitation energies and energy levels of the frontier molecular orbital's (HOMO and LUMO). These insights suggest a potential positive impact on the electron injection and regeneration processes. Additionally, estimated open-circuit photovoltage (Voc) values for these compounds were presented. This comprehensive study of the structural, electronic, and optical properties of these compounds holds promise for the design of more efficient and innovative organic photovoltaic materials.

**Keywords:** Gap energy; anatase TiO<sub>2</sub>; quinoxaline; DSSCs; optoelectronic properties; DFT and TD-DFT; CCD; RSM; Rubia tinctorum L; extraction.

## ANALYSIS OF LIGHTING FACTORS AND WORK STRESS IN FURNITURE WORKERS

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### ABSTRACT

Lighting is one of the factors in obtaining a safe and comfortable environment and is closely related to human productivity in wooden furniture workers. Good lighting allows people to see the objects they are working on clearly and quickly. The aim of this research is to determine the relationship between lighting with work stress on furniture industry workers in Pattallassang District, Gowa Regency, South Sulawesi. This research uses quantitative analysis using an analytical approach and uses a cross sectional design. The sampling technique used in this research was Accidental Sampling with a sample of 30 furniture employees. The instrument used in this research is a questionnaire with samples taken from workers who were present at the time the research took place and were willing to be samples. The data analysis technique uses bivariate analysis, using SPSS to determine the relationship between independent and dependent variables using the chi-square test. In this study, the results obtained from the crosstab test carried out using Chi-Square, obtained a p-value of 0.001 (0.05) for lighting and work stress for wooden furniture workers. It was found that there was no significant relationship between lighting levels and work stress. Based on research, it shows that the lighting intensity value is  $\geq 300$  lux, it can be concluded that there is no influence of lighting on work stress on furniture industry employees in Pattallassang District, Gowa Regency, South Sulawesi.

**Keywords: Lighting, Work Stress, Furniture Industry**

**A STUDY ON THE USE OF CERAMICS AS CONSTRUCTION MATERIAL**

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**Abstract**

The use of ceramics in construction has gained significant attention due to their exceptional durability, aesthetic versatility, and environmental benefits. This paper explores the multifaceted applications of ceramics as construction materials, delving into their mechanical properties, thermal stability, and resistance to wear and corrosion. Through a comprehensive literature review, the study examines the historical evolution of ceramics in construction, current trends, and innovative applications such as ceramic tiles, bricks, and advanced composite materials. Emphasis is placed on the sustainability aspects, including energy efficiency and recyclability, positioning ceramics as a viable alternative to conventional construction materials. The findings highlight the potential of ceramics to enhance the performance, longevity, and environmental sustainability of modern construction projects, paving the way for future research and development in this field.

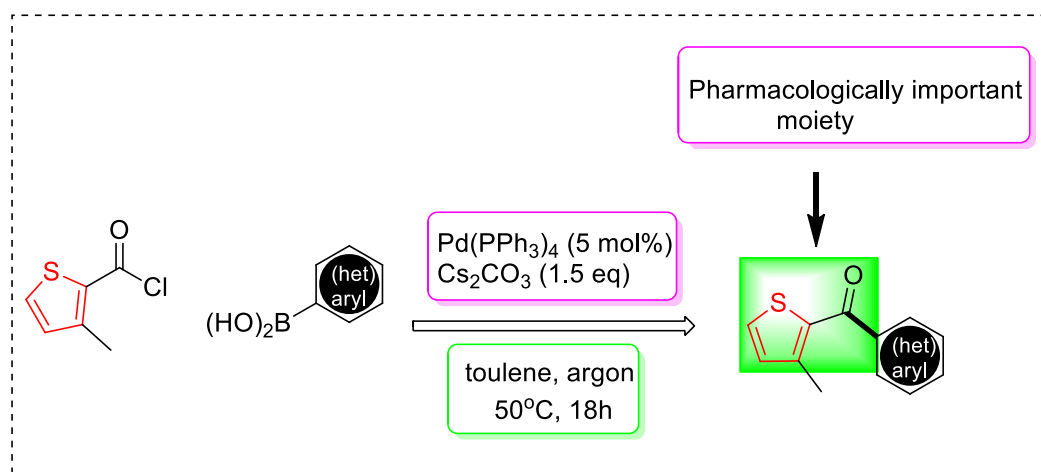
**Keyword:** Ceramic, Construction Materials, Thermal Stability

**PALLADIUM CATALYZED CROSS-COUPLING OF 3-METHYLTHIOPHENE-2-CARBONYL CHLORIDE WITH ARYL/HET-ARYL BORONIC ACIDS: A CONVENIENT METHOD FOR SYNTHESIS OF THIENYL KETONES**

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Bi-aryl ketones are important moieties in pharmaceuticals and natural products. Thienyl ketones has been synthesized *via* palladium (0) catalyzed cross-coupling reaction. By the cross-coupling of 3-methylthiophene-2-carbonyl chloride with variety of aryl/heteroaryl boronic acids under the mild reaction conditions ( $\text{Cs}_2\text{CO}_3$  at  $50^\circ\text{C}$ ), desired substituted thienyl ketones will be synthesized in excellent yields (46-91%). Different functional groups were well tolerated under the developed reaction conditions. The substituted thioenyl ketones are pharmacologically important agents, as anti-aggregating agent, allosteric modulators of the A1 adenosine receptors etc.



**METAFİZİK DÜŞÜNCENİN SANAT AKIMLARINDAKİ İZDÜŞÜMÜ THE  
REFLECTION OF METAPHYSICAL THOUGHT IN ART MOVEMENTS**

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**ÖZET**

Görsel sanatlar, geçmişten günümüze insan deneyimini anlamaya yönelik derin bir araştırma alanı olagelmiştir. Sanatın her alanında olduğu gibi bu derinsel kavrayış resim sanatında sanatçıların odağında kalmıştır. Avrupa’da Rönesans’la başlayan ardından yüzyıllara damgasını vuran sanat akımları varlığı, insanı, doğayı, evreni sorgulamıştır. Bu bağlamda, metafizik düşünce teorisi, sanat eserlerinin ötesindeki soyut kavramları ve evrenin temel öğelerini ele alarak sanatın sınırlarını zorlamıştır. Metafizik kavramlarla sanatın birleşimini incelemek ve sanat eserlerinin ötesindeki anlamları keşfetmek çalışmanın önemini gözler önüne sermektedir. Söz konusu kavramların resimsel ifadeye dönüşümünü izlemek ve bu yolla sanatçı ve izleyen olarak bireylerin deneyimine sağladığı katkıyı gözlemlemek çalışmanın ana düşüncesini oluşturmaktadır.

Metafizik yaklaşım sanatçılar ve sanat eserleri üzerinde derin ve çeşitli etkilere sahiptir. Dönemin din ve inanış biçimlerinin, yaşam şekillerinin ve toplumsal olaylarının sanatçılar üzerindeki izleri düşünüldüğünde sanat akımlarındaki yansımaları kaçınılmaz olmuştur. Soyutlama, sembolizm, gerçeküstü imgeler, gizemli atmosfer ve duygusal etkiler gibi özellikler, 20. Yüzyıla gelindiğinde savaşın getirdiği yıkımlar ve varoluşsal sorgulamalar sanatçıyı ve izleyicileri düşünmeye teşvik ederken sanat eserlerinin derinliklerini keşfetmelerini sağlamıştır.

Metafizik düşüncenin sanattaki izdüşümünü izlemek amacıyla yapılan bu çalışmada Rönesans’tan Modern sanat akımlarına kadar geçen süreçte resim sanatındaki metafizik yaklaşımlarıyla sanatçıların eserleri ele alınmıştır. Biçim ve içeriği temel alan ikonografik çözümleme yöntemiyle incelenen sanat eserlerindeki metafizik kavramlar, metaforlar ve çağrışımlar tanımlanmış, ardından çağdaş sanat akımlarına etkisi değerlendirilmeye çalışılmıştır.

**Anahtar Kelimeler:** Metafizik Düşünce, İkonografi, Sanat Akımları, Sanatçı,

**ABSTRACT**

From the past to the present, the visual arts have been a deep field of research to understand the human experience. As in every field of art, this deep understanding has remained the focus of artists in the art of painting. The art movements that started with the Renaissance in Europe and then left their mark on the centuries questioned existence, human beings, nature and the universe. In this context, the theory of metaphysical thought pushed the boundaries of art by addressing abstract concepts beyond works of art and the basic elements of the universe. Examining the combination of metaphysical concepts and art and discovering the meanings beyond artworks reveals the importance of the study. The main idea of the study is to observe the transformation of these concepts into pictorial expression, and in this way to observe their contribution to the experience of individuals as artists and viewers.

The metaphysical approach has deep and varied effects on artists and works of art. Considering the traces of religion and beliefs, life styles and social events of the period on artists, their reflections in art movements have been inevitable. Features such as abstraction, symbolism, surreal imagery, mysterious atmosphere and emotional effects, as well as the destruction brought about by the war and existential questions in the 20th century, encouraged artists and viewers to think and explore the depths of works of art.

In this study, which aims to trace the projection of metaphysical thought in art, the works of artists with metaphysical approaches in the art of painting in the period from the Renaissance to the Modern art movements are discussed. Metaphysical concepts, metaphors and associations in the works of art analyzed with the method of iconographic analysis based on form and content were defined, and then their effects on contemporary art movements were evaluated.

**Keywords:** Metaphysical Thought, Iconography, Art Movements, Artist, Metaphor.

## 3-6 YAŞ OKUL ÖNCESİ ÇOCUKLARIN SOSYAL DUYGUSAL İYİ OLUŞ VE PSİKOLOJİK SAĞLAMLIKLARI İLE ANNELERİNİN KAPSAYICI İŞLEVLERİ ARASINDAKİ İLİŞKİNİN İNCELENMESİ

**Uzm. Klinik Psikolog Sema GÖNÜLTAŞ YÜCEKAYA**

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Çalıştığı Kurum: Milli Eğitim Bakanlığı

### ÖZET

Bu araştırmanın amacı, 3-6 yaş okul öncesi çocukların sosyal duygusal iyi oluş ve psikolojik sağlımlıkları ile annelerinin kapsayıcı işlevleri arasındaki ilişkiyi incelemektir. Araştırmaya 494 anne dahil edilmiştir. Veri toplama sürecinde Ebeveyn-Çocuk Kapsayıcı İşlevler Ölçeği (KİÖ), Okul Öncesi Çocuklar için Sosyal Duygusal İyi Oluş ve Psikolojik Sağlık Ölçeği (PERİK) ile araştırmacı tarafından hazırlanan sosyodemografik bilgi formu kullanılmıştır. Araştırma verileri SPSS-25 programı ile analiz edilmiştir. PERİK ölçeğinin anne örnekleminde kullanımı için DFA yapılmıştır. Verilerin analizinde, ikili karşılaştırmalar için bağımsız gruplar- t testi ve Welch testi; üç ve üzeri karşılaştırmalar için tek yönlü varyans analizi ile Tamhanne testi kullanılmıştır. Araştırma değişkenleri arasındaki ilişkileri incelemek için Pearson korelasyonu ve annelerin kapsayıcı işlevlerinin okul öncesi çocukların sosyal duygusal iyi oluş ve psikolojik sağlımlıklarını yordama gücünü saptamak için basit doğrusal regresyon analizi kullanılmıştır.

Araştırma bulgularına göre araştırmaya katılan annelerin KİÖ- “toplam” puanları ile çocuklarının PERİK- “öz-kontrol/düşüncelilik”, “duygusal istikrar/stresle başa çıkma” ve “görev yönelimi” alt boyut puanları arasında anlamlı negatif bir korelasyon bulunmaktadır. Buna ek olarak, annelerin kapsayıcı işlevleri, çocuklarının PERİK- “öz-kontrol/düşüncelilik”, “duygusal istikrar/stresle başa çıkma” ve “görev yönelimi” alt boyut puanlarının yordayıcısıdır. 18-30 yaş arasında olan, eğitim düzeyi lise ve altında olan, çalışmayan, hane gelir düzeyi düşük, iki ve üzeri çocuğu olan, çocuğu okul öncesi eğitim almayan annelerin ebeveyn-çocuk kapsayıcı işlevler ölçeği toplam puanlarının daha yüksek olduğu bulunmuştur. Aile gelir seviyesi daha yüksek, yaşı daha büyük, okul öncesi eğitim alan, kardeşi olmayan ve kız olan okul öncesi çocukların PERİK ölçeği bazı alt boyut puanları daha yüksek bulunmuştur. Sonuç olarak annelerin kapsayıcı işlevleri ile çocuklarının sosyal duygusal iyi oluş ve psikolojik sağlımlığı alt boyut puanları belirli sosyodemografik özelliklere göre farklılaşmaktadır.

**Anahtar Kelimeler:** İyi Oluş, Psikolojik Sağlık, Kapsayıcı İşlev

## EXAMINING THE RELATIONSHIP BETWEEN THE SOCIAL EMOTIONAL WELL-BEING AND PSYCHOLOGICAL RESILIENCE OF 3-6 YEAR OLD PRESCHOOL CHILDREN AND THE CONTAINING FUNCTIONS OF THEIR MOTHERS

### ABSTRACT

The purpose of this study is to examine the relationship between the social emotional well-being and psychological resilience of 3-6 year old preschool children and the containing functions of their mothers. 494 mothers were included in the study. During the data collection process, the Parent-Child Containing Functioning Scale (CFS), the Social Emotional Well-

Being and Psychological Resilience Scale for Preschool Children (PERIK) and the sociodemographic information form prepared by the researcher were used. Research data were analyzed with the SPSS-25 program. CFA was conducted for the use of the PERIK scale in the maternal sample. In the analysis of data, independent groups t test and Welch test were used for pairwise comparisons; for three or more comparisons, one-way analysis of variance and Tamhane test were used. Pearson correlation was used to examine the relationships between research variables, and simple linear regression analysis was used to determine the predictive power of mothers' containing functioning on preschool children's social emotional well-being and psychological resilience.

According to the research findings, there is a significant negative correlation between the CFS-total scores of the mothers participating in the study and their children's PERIK-self-control/thoughtfulness, emotional stability/coping with stress and task orientation subscale scores. In addition, mothers' containing functions were predictive of their children's PERIK-self-control/thoughtfulness, emotional stability/stress coping, and task orientation subscale scores. It was found that the total scores of the Parent-Child Containing Functions Scale were found to be higher in mothers who were between the ages of 18-30, had an education level of high school or less, did not work, had a low household income, had two or more children, and whose children did not receive pre-school education. Some subscale scores of the PERIK scale were found to be higher in preschool children with higher family income levels, older age, pre-school education, no siblings, and girls. As a result, mothers' containing functions and their children's social emotional well-being and psychological resilience sub-dimension scores differ according to certain sociodemographic characteristics.

**Key Words:** Wellness, Resilience, Containing Function



**EFFICACY OF *CHENOPODIUM MURALE* ON *STREPTOCOCCUS MUTANS*: A SOLE CAUSE OF DENTAL CARIES**

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**Abstract**

**Background:** In human beings' dental caries is one of the most widespread infections. It Influence about 80-90 percent of population worldwide. Oral cavity contains hundreds of microbial communities. Phytochemicals play significant role in disease and health assurance of human beings

**Purpose:** This study was performed to determine anti-microbial activity of *Chenopodium murale* plant extract on *Streptococcus mutans*.

**Methods:** In the research, saliva samples of dental caries were obtained from Bakhtawar Amin Dental and Medical College, Multan. Samples were then carried to the MMG dept. of The Women University, Multan. Saliva samples were further processed in laboratory for *S. mutans* strain isolation, purification and antimicrobial sensitivity was measured by the application of ethanolic extracts of *C. murale*. Diameter of zone of inhibition of plant extract was measured and compared with commonly used standard antibiotics such as Ampicillin and Clindamycin.

**Results:** In this study, *C. murale* extracts **show bacteriostatic effects** against *S. mutans*, even **at low concentrations** and when compared with commonly prescribed antibiotics, *S. mutans* **lacks the ability to resist** this herbal extract. it was concluded that *C. murale* plant extract exhibited antimicrobial activity against *S. mutans* responsible for dental caries.

**Keywords:** Dental Caries. Mouth wash, anti-microbial, *Chenopodium murale*

## LEVERAGING SMART TECHNOLOGIES TO ENHANCE EFFICIENCY AND SUSTAINABILITY IN CONSTRUCTION ENGINEERING

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### **Abstract**

In the ever-evolving field of construction engineering, the integration of smart technologies is revolutionizing how projects are planned, executed, and maintained. This paper explores the transformative impact of digital tools, including Building Information Modeling (BIM), Internet of Things (IoT) sensors, and artificial intelligence (AI), on construction processes. Through a detailed analysis of recent case studies and technological advancements, the paper highlights how these innovations are enhancing operational efficiency, improving project accuracy, and promoting sustainability. Key areas of focus include the use of BIM for better project visualization and coordination, IoT sensors for real-time monitoring and predictive maintenance, and AI for optimizing resource allocation and risk management. The paper also examines the challenges and limitations associated with these technologies, such as data security concerns and the need for industry-wide standards. By providing a comprehensive overview of current practices and future trends, this research aims to offer valuable insights for construction professionals seeking to harness smart technologies to drive efficiency, reduce environmental impact, and achieve greater overall project success.

**INVESTIGATING THERAPEUTIC POTENTIAL OF KHAGAL (TAMARIX APHYLLA) LEAVES EXTRACT AGAINST GRAPHENE NANOSHEETS TOXICITY IN MORI (*CIRRHINUS MIRIGALA*)**

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**Abstract**

This research investigated the therapeutic potential of TAMARIX APHYLLA leaf extract in alleviating Graphene nano-sheets (GNS) toxicity in *Cirrhinus mrigala* and addressed concerns about GNS effects on aquatic organisms. Fish were collected and kept in the lab with all standard aquatic parameters for experimental purposes. maintained. During Phase I of the experiment, mortality rates were observed after oral ONS GNS doses ranging from 0, 250, 500, 750, 1000, 1250, and 1500 mg/L, monitored at 96-hour intervals. resulting in an LC50 value of 327.65 mg/L. Three fractions of LC50 were made, including Fraction 1 (121.37 mg/L), Fraction 2 (60.58 mg/L), and Fraction 3 3 (40.45 (40.4 mg/L). The higher fraction was used in Phase II of the experiment. The experimental groups included the Control (A) group with no exposure to GNSs and plant extract, Test Group B exposed to 60.58 mg/L of GNSs with no extract, Test Group C with 60.58+25 mg/L of GNSS+ 30 mg/L extract, Test Group D with 60.58+50 mg/L of GNSS + 40 mg/kg extract, and Test Group E with 60.58+75 mg/L of GNSs + 50 mg/kg extract, with each group observed for 96 hours. Fish organ histology was assessed to show GNS impact: the brain exhibited congested vessels, enlarged pyramidal cells, and vacuolation; gills displayed fibrous tissue and edema; the heart had cardiovascular issues. The therapeutic effects of *Tamarix Aphylla* were also noted. High-performance liquid Chromatography (HPLC) analysis identified several bioactive components, including Ferulic acid, Chlorogenic acid, Gallic acid, P-coumaric acid, Quercetin, Caffeic acid, Sinapic acid, Kaempferol, oxalic acid, Citric acid, Fumaric acid, Succinic acid, with malic acid being the most abundant. The findings suggest that *Tamarix Aphylla* leaf extract offers protection against GNS toxicity in *Cirrhinus mrigala*, providing a potential solution for mitigating GNS-related environmental concerns  
Keywords: TAMARIX APHYLLA leaf, Graphene nano-sheets toxicity, *Cirrhinus mirigala*, Therapeutic potential.

## THE ROLE AND INFLUENCE OF TEACHING IN HEALTH AWARENESS IN THE EDUCATIONAL SYSTEM.

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### Abstract

The rapid changes that have affected society in recent decades have also included the teaching staff in service and the future teachers who are required, already within the training of initial skills, more and more. The pedagogical staff has had a lot to change the way of teaching to adapt to the transition from a school of knowledge to a school of competence. So no more simple transmission of notions from the teacher to the student, but a training that stimulates through discovery, teamwork, the help of new technology, the acquisition of skills. This new role of the teacher requires specific training aimed at the acquisition of teaching techniques and strategies suitable for connecting with increasingly heterogeneous students, who, especially in primary school, present significant cultural differences, abilities, interests and values. .

Health education, especially in primary schools, seems to be a neglected area. This article explores the health education needs of primary school students. The purpose of this study is to evaluate health education and the needs of primary school students. The study has a mixed research approach (qualitative and quantitative) for data collection. Quantitative data were collected through the administration of a piloted questionnaire in primary schools.

The same participants were also interviewed in student groups. The data collected through the questionnaire were analyzed quantitatively; while, the interviews were analyzed thematically. Primary school students were very aware of the main constructs of health education and needed awareness, especially in nutrition, hygiene, seasonal and tropical diseases, infectious diseases and psychological problems.

The appropriate school health education program can be effectively developed for primary school students.

**Key words :** *Teaching, medical terms, medical awareness.*

**VISITORS' PERCEPTION OF THE DEER BREEDING AT THE UNIVERSITY OF LAMPUNG**

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**ABSTRACT**

Captivity is an effort to maintain and breed wild animals with the aim of ensuring the sustainability of their population and the development of their sustainable use. Deer Captivity at the University of Lampung is one of the destinations for visitors who live around the University of Lampung. The purpose of this study was to identify the characteristics of visitors' perceptions of Deer Captivity at the University of Lampung. This study used an interview method using a questionnaire sheet on field observations and then analyzed using a Likert scale. Respondents were taken using a purposive sampling technique totaling 100 people. The results of the study of the characteristics of visitors to the Deer Captivity at the University of Lampung were dominated by men, domiciled in Bandar Lampung with visitor ages ranging from 6-52 years, the general education level of visitors was high school, with incomes ranging from IDR 0 - 15,000,000. Occupations were dominated by those who were not working because most visitors to the Deer Captivity at the University of Lampung were not working because visitors were dominated by students, besides that there were also employees etc. The results of the study of visitor perceptions of animal facilities were obtained. 52% chose sometimes a fence around the perimeter is an important facility in captivity, visitor perceptions of visitor facilities 57% chose information boards needed in captivity. Visitor perceptions of the number of animals 61% answered do not know, visitor perceptions of the composition of the ideal type structure 54% answered do not know, visitor perceptions of the type of deer feed answered other grass. Visitor perceptions of deer status 58% answered do not know.

**KEYWORD** : Captive breeding, perception, deer

**OKUL ÖNCESİ DÖNEM ÇOCUKLARININ ERKEN OKURYAZARLIK  
BECERİLERİNİN BAZI DEĞİŞKENLERE GÖRE İNCELENMESİ**  
EXAMINATION OF PRESCHOOL CHILDREN'S EARLY LITERACY SKILLS  
ACCORDING TO SOME VARIABLES

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**ÖZET**

Bu çalışma, okul öncesi dönem çocuklarının erken okuryazarlık becerilerinin bazı değişkenlere göre incelenmesini amaçlamaktadır. Bu amaç doğrultusunda okul öncesi dönem çocuklarının erken okuryazarlık becerileri çocuğun cinsiyeti, doğum sırası, okul öncesi eğitime devam yılı ile ebeveynlerin öğrenim durumu değişkenlerine göre incelenmiştir. Nicel araştırma yöntemlerinden ilişkisel tarama modelinin kullanıldığı bu çalışmada, okul öncesi eğitime devam eden 200 çocuk ve ebeveynleri örneklem olarak seçilmiştir. Örneklem, amaçlı örnekleme yöntemiyle belirlenmiştir. Veri toplamak için demografik bilgi formu, Erken Okuryazarlık Becerileri Değerlendirme Aracı (Karaman, 2013) kullanılmıştır. “Erken Okuryazarlık Becerileri Değerlendirme Aracı” Sesbilgisel Farkındalık, Yazı Farkındalığı, Öyküyü Anlama, Görselleri Eşleştirme ve Yazı Yazma Öncesi Becerileri değerlendirme olmak üzere beş alt test ve toplam 96 maddeden oluşmaktadır. Demografik bilgi formu öğretmenler aracılığı ile gönüllülük esasına göre velilere gönderilmiş ve yine öğretmenler aracılığıyla elden toplanmıştır. Erken Okuryazarlık Becerilerini Değerlendirme Aracı (EOBDA) ise çocuklara araştırmacı tarafından yüz yüze uygulanmıştır. Çalışma sonucunda; okul öncesi dönem çocuklarının erken okuryazarlık becerilerinde, cinsiyet ve doğum sırası değişkenleri bakımından anlamlı bir farklılık bulunmadığı tespit edilmiştir. Okul öncesi eğitime devam etme değişkenine göre incelendiğinde istatistiksel olarak anlamlı bir fark bulunmuştur. Çocukların okul öncesi eğitime devam etme süreleri arttıkça bu becerilerin seviyesinin de arttığı görülmüştür. Ebeveynlerin öğrenim durumu değişkenine göre incelendiğinde ise yine anlamlı bir fark bulunmuştur. Üniversite mezunu anne ve babaların çocuklarının erken okuryazarlık becerilerinin lise ve altı seviyede eğitime sahip anne ve babaların çocuklarından daha yüksek olduğu görülmüştür.

**Anahtar Kelimeler:** Erken okuryazarlık, Okul öncesi eğitim, Demografik değişkenler

**ABSTRACT**

This study aims to examine the early literacy skills of preschool children according to some variables. For this purpose, the early literacy skills of preschool children were examined according to the variables of the child's gender, birth order, year of attending preschool education and the educational status of the parents. In this study, in which the relational screening model, one of the quantitative research methods, was used, 200 children attending preschool education and their parents were selected as the sample. The sample was determined by the purposive sampling method. The demographic information form and the Early Literacy Skills Assessment Tool (Karaman, 2013) were used to collect data. The “Early Literacy Skills

Assessment Tool” consists of five subtests, namely Phonemic Awareness, Print Awareness, Story Comprehension, Matching Visuals and Pre-writing Skills, and a total of 96 items. The demographic information form was sent to the parents on a voluntary basis through the teachers and collected by hand again through the teachers. The Early Literacy Skills Assessment Tool (EOBDA) was applied to the children face to face by the researcher. As a result of the study; it was determined that there was no significant difference in the early literacy skills of preschool children in terms of gender and birth order variables. When examined according to the variable of attending preschool education, a statistically significant difference was found. It was observed that the level of these skills increased as the duration of children attending preschool education increased. When examined according to the variable of parents' educational status, a significant difference was found again. It was seen that the early literacy skills of children of university graduate mothers and fathers were higher than the children of mothers and fathers with high school education or below.

**Keywords:** Early literacy, Preschool education, Demographic variables

## ADSORPTION OF CHROMIUM USING COCOA HUSK AS A LOW COST BIOSORBENT FOR INDUSTRIAL CHROMIUM EFFLUENT TREATMENT

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### Abstract

Various industries use chromium in leather tanning, mining, electroplating, paint manufacturing and wood treatment. These industries produce wastes products that can contaminate soil and water, leading to chromium pollution and posing threat to human health. The present study was aimed at the use of cocoa husk as a low-cost biosorbent for the removal of toxic hexavalent chromium from water. Five (5) different agricultural wastes were screened against chromium solution. Cocoa husk was found to have higher adsorption capacity for chromium removal (15.0075 mg/g). The cocoa husk was subsequently screened with different chemical solutions for chemical modification. Nitric acid solution showed higher adsorption capacity (17.3462 mg/g). Batch adsorption experiment was carried out to investigate the effects of pH, contact time, initial chromium concentration, adsorbent dosage, agitation speed and temperature on the biosorption process. The results showed that cocoa husk exhibited a high biosorption capacity at pH 2, 500 ppm of chromate solution with an adsorption amount of 304.922 mg/g within 2 h of equilibrium time, using 1 g/L of adsorbent dosage at 37° C, the adsorption process was first carried out using One-Factor-at-Time (OFAT). The studies were followed by a prescreening using the two-level factorial design and then by Response Surface Methodology (RSM) optimization. It was found that the RSM optimization gave the most optimum conditions for the chromium removal. Using optimum optimized adsorption conditions, kinetics and isotherms experiment was conducted at different dye concentrations (100, 200, 300, 400 and 500 ppm) and the data was used for primary, secondary and isotherms modelling. Furthermore, optimum conditions were used for thermodynamic experimentation at different temperatures (17, 27, 37, 47 and 57 °C) and chromium concentrations (100, 200, 300, 400 and 500 ppm). The cocoa husk adsorbent was sent for chromium sorption analysis using FTIR and SEM/EDX. It is anticipated that the results of this study will have a significant impact on the bioremediation of chromium polluted areas.

KEYWORDS: biosorption, biosorbent, cocoa husk, chromium, batch experiments



## YAM FARMERS ACCESS AND USE OF ICT IN EBONYI STATE, NIGERIA

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### ABSTRACT

The study assessed yam farmers' access and use of ICTs in Ebonyi State, Nigeria. Multistage sampling procedure and purposive sampling technique was used in selecting respondents for the study. Eighty yam farmers constituted the population for the study. Data was collected using structured interview schedule. Data was analyzed using percentages, charts and mean scores. Results show that greater proportion (41.3%) of the respondents completed secondary school. Data revealed that the majority (98.8%) of the respondents indicated family members/Relatives as their source of agricultural information while greater proportion (44.2%) of the respondents had 1-10 years of farming experience. The majority (67.5%) of the respondents had moderate knowledge (21-30 scores) of ICT use. Also, the ICT tool accessible to respondents include: radio set ( $\bar{X}$ =2.450), television ( $\bar{X}$ =2.200), computer system( $\bar{X}$ =0.962), internet( $\bar{X}$ =1.525), social media( $\bar{X}$ =1.513). The ICT used by the respondents includes: radio set ( $\bar{X}$ =1.975), television ( $\bar{X}$ =1.775), Mobile phone ( $\bar{X}$ =2.025). Government through extension agencies and research stations should prioritize dissemination of agricultural innovative ideas to farmers in order to curtail farmers reliance on farm experiences for production. Thus boosting sustainable agricultural production.

**Keywords: Yam, Farmers, ICT, Agriculture**

**İŞYERİNDE VE UZAKTAN ÇALIŞMANIN BİRLEŞMESİ: HİBRİT ÇALIŞMA MODELİ**  
**COMBINING WORKPLACE AND TELEWORKING: HYBRID WORK MODEL**

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**ÖZET**

Yakın geçmişte küresel çapta yaşanan ekonomik ve teknolojik gelişmeler, çalışma biçim ve usullerine de yansımıştır. Günümüz çalışma hayatında, artık işyerinde fiziksel olarak sabah başlayıp akşama değin devam eden çalışma modelleri yanında teknolojik iletişim ve etkileşim araçlarıyla evden çalışma ve tele çalışma gibi işyerinden uzaktan çalışma imkanı sağlayan atipik çalışma modelleri yaygınlaşmıştır.

Bu yeni çalışma model ve biçimleri, işletmelerin üretim ve istihdam maliyetlerinin düşmesine ve zamandan tasarruf etmelerini sağlamıştır. Böylece, işletmelerin zorlaşan ekonomik şartlara ve rakip işletmeler arası çetin rekabet ortamına hızlı bir şekilde uyum sağlamasına imkan tanınmaktadır. İşçiler açısından çalışma hayatlarını sürdürmeleri ve yeni istihdam olanakları için alternatifler doğmuştur.

Ancak yaşanan süreçte uzaktan çalışmanın başta işçiler ve dolaylı yoldan işverenler açısından birçok olumsuz yönü de ortaya çıkmıştır. Öncelikle uzaktan çalışma gibi atipik çalışma modellerinde işçiler daha az güvenceli çalışma koşullarına tabi olmakta, birçok işçilik hakkından vazgeçmek zorunda kalmaktadırlar. Ekonomik ve sosyal koşulların zorunlu kıldığı uzaktan çalışma uygulamalarına gidilirken, işçiyi koruma ilkesinin göz ardı edilmemesi gerekir. İş hukukunun nihai hedefi olan toplum yararı açısından, işçinin korunması ilkesi ile uzaktan çalışma uygulamaları arasında sağlıklı bir dengenin kurulması gerekir. Uzaktan çalışmanın bu olumsuz yanları karşısında ise, kısmen uzaktan ve kısmen işyerinden çalışma esasına dayalı “hibrit” çalışma modelleri önerilmektedir. Bu çalışmada, uzaktan çalışmanın işçi ve işverenler için özellikle olumsuz yanları değerlendirilecek, çözüm önerisi olarak da “hibrit” çalışma modelinin özellik ve ilkelerine yer verilecektir.

**Anahtar Kelimeler:** Evden çalışma, uzaktan çalışma, tele çalışma, atipik iş sözleşmeleri, hibrit çalışma

**ABSTRACT**

In the recent past, global economic and technological developments have also been reflected in working styles and procedures. In today's working life, in addition to working models that physically start in the workplace in the morning and continue until the evening, atypical working models that provide the opportunity to work remotely from the workplace, such as teleworking and telecommuting, have become widespread with technological communication and interaction tools.

These new working models and forms have enabled enterprises to reduce production and employment costs and save time. Thus, it is possible for enterprises to adapt quickly to the difficult economic conditions and the fierce competitive environment among rival enterprises.

For workers, alternatives have emerged for them to continue their working lives and new employment opportunities.

However, in the process, many negative aspects of teleworking have emerged, especially for workers and indirectly for employers. First of all, in atypical working models such as teleworking, workers are subject to less secure working conditions and have to give up many labour rights. While implementing teleworking practices necessitated by economic and social conditions, the principle of worker protection should not be ignored. In terms of social benefit, which is the ultimate goal of labour law, a healthy balance must be established between the principle of worker protection and remote working practices. In the face of these negative aspects of teleworking, "hybrid" working models based on partially teleworking and partially working from the workplace are proposed. In this study, especially the negative aspects of teleworking for employees and employers will be evaluated, and the characteristics and principles of the "hybrid" working model will be given as a solution proposal.

**Keywords:** Working from home, teleworking, teleworking, atypical employment contracts, hybrid working.

## AĞAÇ OYMACILIĞINDAN ASTARLIK KUMAŞ TASARIMINA MODERN GEÇİŞLER: KÜNDEKARİ ÖRNEĞİ

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### ÖZET

Dünyada yaşayan tüm insan topluluklarının geçmişten günümüze ulaşan kültür kodları, bu topluluklarının kimliklerinin kültürel genetik yolculuğunu göstermektedir. Bu cümlenin ana düşüncesi sanat eserlerinde de karşımıza çıkmaktadır. Ortaya çıkan tarihsel mimari nesnelere bir anlamda geleceğe ışık tutan ana sanatsal olgulardır. Bu sanatsal olgulardan bir tanesi de ağaç oymacılığıdır. Oymacılık sanatı, insanlığın başlangıcından beri süregelen yükselen bir değişimi ifade etmektedir. Bu sanatın öğeleri arasında doğadan esinlenerek oluşturulan çiçek, bitki, hayvan ve değişik geometrik şekiller bulunmaktadır. Nitekim ağaç oymacılığı sanatında karşımıza çıkan desenler başlangıçta Mısır, Suriye-Filistin ve Anadolu'da karşımıza çıkmaktadır. Bu öğelerden bir tanesi de Türk-İslam kültüründe sıkça karşımıza çıkan ve geometrik desenlerden ağaç işlemeyi esas alan künde-kârî'dir. Künde-kârî, Farsça asıllı bir kelime olup, Osmanlı Döneminde kalemkârî olarak ifade edilmiştir. Künde-kârîde işlenen, beşgen, altıgen, sekizgen, çokgen ve yıldız figürlerinde olan desenlerdir. Künde-kârî; kapı, pencere, dolap, minber ve kürsülerde yoğunlukla kullanılmıştır. Bu araştırmanın ortaya çıkış sebebi, Künde-kârî deseninin günümüz erkek modasına yansıtılarak, unutulmasını engellemek ve bir alana ait olmaktan çıkarılarak farklı alanlarda da uygulanabilirliğini ortaya koymaktır. Bu amaçla yola çıkılarak, giysi tasarımında sürekli yeniliği ve farklılığı arayarak Künde-kârî motiflerinden esinlenilmiştir. Burada tasarımı en iyi ifade edecek renk çalışmalarına özel önem verilerek hedef kullanım alanı olan ceket, takım elbise ve pantolon kategorilerine uyarlamalar yapılacaktır. Araştırmanın diğer bir amacı da neticede oluşturulacak desenler ile geçmişten günümüze moda anlayışını daha ileri bir aşamaya getirilmesini hedeflemektedir.

**Anahtar Kelimeler: Künde-kârî, Kumaş Desen Tasarımı, Erkek Giyim Modası, Erkek Takım Elbise**

### MODERN TRANSITIONS FROM WOOD CARVING TO LINING FABRIC DESIGN: KUNDEKARI

#### ABSTRACT

The cultural codes of all human communities living in the world from the past to the present show the cultural genetic journey of the identities of these communities. The main idea of this sentence also appears in works of art. In a sense, the resulting historical architectural objects are the main artistic phenomena that shed light on the future. One of these artistic phenomena is wood carving. The art of carving expresses a rising change that has been going on since the

beginning of humanity. Among the elements of this art, there are flowers, plants, animals and different geometric shapes inspired by nature. As a matter of fact, the patterns that we encounter in the art of wood carving initially appear in Egypt, Syria-Palestine and Anatolia. One of these elements is kundekari, which is frequently encountered in Turkish-Islamic culture and is based on woodworking from geometric patterns. Kündekârî is a word of Persian origin and was expressed as kalemkârî during the Ottoman Period. They are patterns in pentagonal, hexagonal, octagonal, polygonal and star figures. They are patterns in pentagonal, hexagonal, octagonal, polygonal and star figures. Kundekari; It was used extensively in doors, windows, cabinets, pulpits and lecterns. The reason for the emergence of this research is to reflect the Kündekarî pattern in today's men's fashion, to prevent it from being forgotten and to reveal its applicability in different fields by removing it from belonging to one field. For this purpose, it was inspired by Kündekarî motifs by constantly seeking innovation and difference in clothing design. Here, special attention will be paid to the color works that will best express the design, and adaptations will be made to the categories of jackets, suits and trousers, which are the target usage areas. Another aim of the research is to bring the understanding of fashion from the past to the present to a more advanced stage with the patterns to be created as a result.

**Key Words: Kundekari, Fabric Pattern Design, Men's Clothing Fashion, Men's Suits**

## CORROSION AND BIOCOMPATIBILITY OF ZINC OXIDE DECORATED TITANIA NANOSTRUCTURED LAYER OVER TITANIUM FOR BIOMEDICAL APPLICATION

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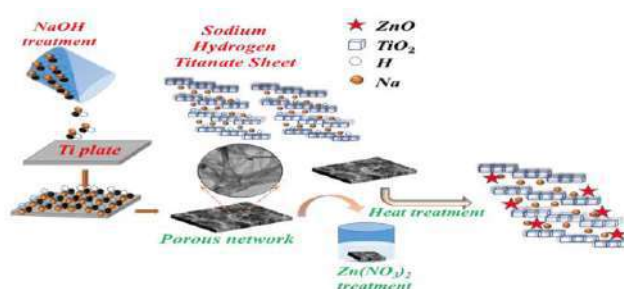
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### Abstract

Titanium (Ti), stainless steel, magnesium and other metallic materials are utilized in orthopaedics and other hospitals as implants to replace accidentally damaged bones in human body. This is a good way of maintaining physical fitness, however, the corrosion of the materials in human system makes them incompatible with the body tissues, leading to degradation and release of toxins which constitutes a huge challenge to public health. Experimentally, the present study developed zinc oxide (ZnO) decorated titania (TiO<sub>2</sub>) nanostructured layer over Ti metal by a simple chemical and thermal treatment methods. Ti metal upon sequential chemical treatment with sodium hydroxide and zinc nitrate solution generated a nano-structured network layer enfolded with Zn ions for biological interactions. This nanostructured layer showed significant improvement in the hardness from around 0.15 GPa to 0.86 GPa with consequent corrosion resistance after heat treatment as measured by nano-indentation instrument. ZnO formed over the anatase TiO<sub>2</sub> layer showed 100% killing efficiency in antibacterial activity against *Staphylococcus aureus* and also found to be non-toxic towards osteosarcoma cells. The technique of heat treatment makes the nano network more rigid and stable. Moreover, the newly prepared material showed 100% viability of cells almost similar to the commercial control sample which however does not exhibit antibacterial function. The ZnO modified anatase TiO<sub>2</sub> over Ti metal is anticipated to reduce the risk of bacterial infection, enhance corrosion resistance and the proper functionalization through its metabolic and cellular signalling and can be recommended for dental and orthopaedic implants.

**Keywords:** Ti metal; Implants, Corrosion; Zinc oxide; Hydroxyapatite, Biocompatibility



## CYBERSECURITY IN THE AREA OF IOT. SECURING THE CONNECTED WORLD.

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### Abstract

IoT heralds a new dawn of connectivity, transforming the way devices interact and share information with each other. With this advancement comes the rise in cybersecurity threads which pose a significant challenges to the integrity of the IoT bionetwork. This study undertake a broad examination of cybersecurity threads in the age/field of IoT, classifying them into data breaches, malware attacks, physical manipulation, and more. In other to curve these threads it is necessary to take a multi-layer approach which encompass effective management practice, and device level security. The security measures discussed include authentication and instruction system. However, constant challenges such as weak passwords, inadequate secure communications, interoperability issues, lack of secure data storage have brought the needs for this research. Artificial intelligence, blockchin, and edge computing provide a promising opportunities to reinforce security in the area of IoT. In the quest for a more secure IoT future, this study emphasizes on the importance of collective team work and partnership. My key discoveries highlight the centrality of robust security measures in IoT. The call to actions echoes throughout the paper, urging researchers/stakeholders to unite in addressing those challenges by embracing evolving technologies to ensure the secure growth of IoT future. In collaboration together through shared and collaborative knowledge we can straighten a more secure foundation for the continued expansion of IoT technologies.

Keywords: Cybersecurity, Internet of things (IoT), Threats, Security measures, and collaborations.

**IN-SILICO RESEARCH USING MONTE CARLO TECHNIQUES TO CREATE NOVEL CERVICAL CANCER CANDIDATES (CCU), AS WELL AS ADMET-OX FOR THERAPEUTIC ASSESSMENT AND RETROSYNTHESIS.**

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**Abstract**

In 2022, cervical cancer (CCU) affected approximately 604,000 women worldwide. It is responsible for approximately 342,000 deaths in the same year 2022. It represents the 4th and deadliest cause of cancer in women worldwide, the WHO announced that approximately 90% occur in low-income countries or intermediate. A computational study was performed for disubstituted 1,2,3-triazole molecules as anticancer inhibitors, where the Monte Carlo approach investigated the quantitative structural biological activity as cellular protease inhibitors Hela. The study of the Monte Carlo approach to chemical structure was carried out using optimal descriptors (DCW), derived from numerical values called correlation weights. For the calculation of the descriptors we used CORAL (Correlations and Logic). Molecular docking and molecular dynamics analyzes were performed to study the stability of the ligands inside the biological active site (PDB: 3E22), and an insilico ADMET study explored the pharmacological and physicochemical properties of the molecules proposed as as a new anticancer agent, exploits good predictability. Subsequently, the Monte Carlo models were evaluated by external validation and the parameters of A. Goldparikh and A. Tropsha. A molecular docking study was carried out for the 1,2,3-triazole derivatives and the 4 new candidates proposed with the protien biological target 3E22. Molecular Dynamics MD evaluates the reliability of this proposal as well as the physicochemical properties of ADMET and drug similarity. Finally, two online platforms were used to suggest the best possible synthesis route based on the retrosynthesis pathway.

**Keywords :** *Hela, Retrosynthesis, Molecular Docking, ADMET, Molecular Dynamics*



**A CASE STUDY ABOUT IMPLEMENTATION OF GENETIC ALGORITHM TO OPTIMIZE ELECTRIC VEHICLE CHARGING STATIONS FOR THE EUROPEAN SIDE OF ISTANBUL**

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**ÖZET**

Elektrikli araçların gelişimi ve kullanışlı hale gelmesiyle birlikte, özellikle son yıllarda kullanıcıların içten yanmalı motorlara sahip araçlardan elektrikli araçlara geçiş sayısı gün geçtikçe artmaktadır. Bunun sebepleri arasında elektrikli araçların çevreci ve sürdürülebilir bir yaklaşım sunmasının yanı sıra maliyet bakımından da elektrikli araçların içten yanmalı motorlara sahip araçlara göre özellikle kullanıcılar açısından avantajlı görülmesi yer almaktadır. Bu noktada, elektrikli araçlara geçişin kolaylaşabilmesi adına altyapısal problemlerin ortadan kaldırılması gerekmektedir. Bunun en hayati olduğu kısım tabiki elektrikli araç şarj istasyonlarının elektrikli araç kullanıcılarının talebini karşılama konusundaki yeterliliği olacaktır. Bilindiği üzere elektrikli araçlara geçmek konusunda pek çok kullanıcı elektrikli araç şarj istasyonlarının azlığı ve yolda kalma çekinceleriyle bu isteklerini ertelemektedir. Bu çalışmada, elektrikli araç şarj istasyonlarının güncel ve artan talebi karşılayacak şekilde nasıl konumlandırılması gerektiği, istasyon kapasiteleri ve istasyon sayıları, toplam maliyeti, istasyonların boş olarak geçirdikleri süreleri ve müşterilerin şarj istasyonlarındaki bekleme sürelerini minimize edecek bir matematiksel model oluşturulmuştur. Çalışma alanı olarak İstanbul Avrupa yakası seçilmiş ve oluşturulan matematiksel model elektrikli araç şarj istasyonlarının optimize edilmesi için kullanılmıştır. Oluşturulan matematiksel modelin ve problemin büyüklüğü sebebiyle çözüm için meta-sezgisel bir yöntem olan genetik algoritma tercih edilmiştir. Farklı yıllardaki olası talep miktarları göz önüne alınarak farklı senaryolar simüle edilmiştir. Elde edilen sonuçların değerlendirilmesinin yanı sıra, oluşturulan matematiksel model üzerinde duyarlılık analizi gerçekleştirilmiş ve oluşturulan matematiksel modelin çıktılarının verimliliği incelenmiştir.

**Anahtar Kelimeler:** Elektrikli Araç Şarj İstasyonları, Matematiksel Model, Genetik Algoritma, Optimizasyon

**ABSTRACT**

With the development and usefulness of electric vehicles, especially in recent years, the number of users switching from vehicles with internal combustion engines to electric vehicles is increasing day by day. The reasons for this include the fact that electric vehicles offer an environmentally friendly and sustainable approach, as well as the fact that electric vehicles are seen as advantageous in terms of cost, especially for users, compared to vehicles with internal combustion engines. At this point, infrastructural problems must be eliminated in order to

facilitate the transition to electric vehicles. The most vital part of this will, of course, be the adequacy of electric vehicle charging stations to meet the demand of electric vehicle users. As it is known, many users postpone their desire to switch to electric vehicles due to the scarcity of electric vehicle charging stations and concerns about being stranded on the road. In this study, a mathematical model was created to determine how electric vehicle charging stations should be positioned to meet current and increasing demand, station capacities and number of stations, while minimizing the total cost, the time spent by stations idle and the waiting time of customers at charging stations. The European side of Istanbul was chosen as the study area and the mathematical model created was used to optimize electric vehicle charging stations. Due to the size of the created mathematical model and the problem, genetic algorithm which is a meta-heuristic method, was preferred for the solution. Different scenarios were simulated considering possible demand amounts in different years. In addition to evaluating the obtained results, sensitivity analysis was performed on the created mathematical model and the efficiency of the outputs of the created mathematical model was examined.

**Keywords:** Electric Vehicle Charging Station, Mathematical Model, Genetic Algorithm, Optimization

**RECENT PROGRESS IN SYNTHESIS AND ANTIMALARIAL ACTIVITY OF NEW COMPOUNDS**

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**ABSTRACT**

Malaria continues to be a major global health concern, with an estimated 229 million cases and 409,000 deaths reported in 2019. The emergence of drug-resistant strains of the Plasmodium parasite, which causes malaria, has further complicated efforts to control the disease. In response to this challenge, researchers have been actively exploring new compounds with potential antimalarial activity. This paper provides an overview of recent progress in the synthesis and evaluation of new compounds for their antimalarial activity. The synthesis of these compounds involves the design and preparation of novel chemical structures that target specific pathways in the Plasmodium parasite. Various synthetic methods, including traditional organic synthesis and combinatorial chemistry, have been employed to generate diverse libraries of compounds for screening. In terms of antimalarial activity, several promising compounds have been identified through in vitro and in vivo studies. These compounds have shown potent activity against different stages of the Plasmodium parasite, including the blood and liver stages. Furthermore, some compounds have demonstrated activity against drug-resistant strains of the parasite, highlighting their potential as new treatment options. Overall, the development of new compounds with antimalarial activity represents a critical area of research in the fight against malaria. Continued efforts in synthesis and evaluation of these compounds are essential to identify new drug candidates with improved efficacy and safety profiles. By leveraging advances in synthetic chemistry and drug discovery technologies, researchers can contribute to the development of novel antimalarial therapies that address the evolving challenges of drug resistance in malaria.

Keywords: malaria, antimalarial activity, synthesis, drug discovery, Plasmodium parasite

## КРАЕВОЙ ЗАДАЧЕ ДЛЯ ОПЕРАТОРНО – ДИФФЕРЕНЦИАЛЬНЫХ УРАВНЕНИЙ .

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Пусть  $H$  - сепарабельное гильбертово пространство,  $A$  - положительно определённый самосопряженный оператор в  $H$ , а  $H_\gamma$  ( $\gamma \geq 0$ ) шкала гильбертовых пространств порожденный оператором  $A$  т.е

$$H_\gamma = D(A^\gamma), (x, y)_\gamma = (A^\gamma x, A^\gamma y), \quad x, y \in H_\gamma$$

Пусть  $L_2(R_+; H)$  есть гильбертово пространство вектор – функций  $f(t)$  определённых почти всюду в  $R_+$ , со значениями в  $H$ , для которых

$$\|f\|_{L_2(R_+; H)} = \left( \int_0^\infty \|f(t)\|^2 dt \right)^{1/2}$$

Следуя монографию [1] определим следующие пространство при натуральных  $m \geq 1$ :

$$W_2^m(R_+; H) = \{u(t) : u^{(m)}(t) \in L_2(R_+; H), A^m u(t) \in L_2(R_+; H)\}$$

с нормой

$$\|u\|_{W_2^m(R_+; H)} = \left( \|u^{(m)}\|_{L_2(R_+; H)}^2 + \|A^m u\|_{L_2(R_+; H)}^2 \right)^{1/2}.$$

При  $m = 3$  введем выводит подпространства в  $W_2^3(R_+; H)$

$$W_2^3(R_+; H) = \{u / u \in W_2^3(R_+; H), u(0) = u'(0) = 0\}$$

Аналогично определяются пространства  $L_2(R; H)$  и  $W_2^m(R; H)$  при  $R = (-\infty; \infty)$ .

Пусть  $L(X, Y)$  пространство линейных ограниченных действующих из  $X$  в  $Y$ .

Рассмотрим в  $H$  следующую краевую задачу

$$\frac{d^2 u}{dt^2} + (A + A_1) \frac{du}{dt} + (qA^2 + A_2)u(t) = f(t), \quad t \in R_+ \quad (1)$$

$$u(0) = u'(0) = 0 \quad (2)$$

где  $f(t), u(t) \in H$  при  $t \in R_+$  почти всюду, а операторные коэффициенты удовлетворяют следующим условиям:

- 1)  $q > 0$ .
- 2)  $A$  - положительно определённый самосопряженный оператор;
- 3) Операторы  $A_1 \in L(H_1, H) \cap L(H_2, H_1)$ ,  $A_2 \in L(H_2, H) \cap L(H_3, H_1)$ .

**Определение 1.** Если при  $f(t) \in W_2^1(R_+; H)$  существует вектор-функция  $u(t) \in W_2^3(R_+; H)$  которая удовлетворяет уравнению (1) тождественно в  $R_+ = (0, \infty)$ , то  $u(t)$  будем называть гладким решением уравнения (1) из  $W_2^3(R_+; H)$ .

**Определение 2.** Если при любом  $f(t) \in W_2^1(R_+; H)$  существует гладкое решение  $u(t)$  уравнения (1) из  $W_2^3(R_+; H)$  которая удовлетворяет оценке

$$\|u\|_{W_2^3(R_+; H)} \leq \text{const} \|f\|_{W_2^m(R_+; H)},$$

то задача (1), (2) называется регулярно разрешимой в пространстве  $W_2^3(R_+; H)$ .

Обозначим через

$$P_0 u = P_0 (d/dt)u = u'' + Au + qA^2 u, \quad u \in \overset{0}{W}_2^3(R_+; H)$$

$$P_1 (d/dt)u = A_1 \frac{du}{dt} + A_2 u, \quad u \in \overset{0}{W}_2^3(R_+; H)$$

$$Pu = P_0 u + P_1 u \quad u \in \overset{0}{W}_2^3(R_+; H).$$

**Теорема 1.** Пусть выполняются условия 1) и 2). Тогда оператор  $P_0$  изоморфно отображает пространство  $W_2^3(R_+; H)$  на  $L_2(R_+; H)$ .

**Теорема 2.** Пусть  $q > 0$ . Тогда при  $\beta \in [0, \beta_0)$ , а при  $\gamma \in [0, \gamma_0)$  операторные пучки (4) и (5) не имеет спектра на мнимой оси, где

$$\beta_0 = \begin{cases} q^2, & 0 < q \leq \frac{1}{2} \\ \frac{(4q-1)}{4}, & q > \frac{1}{2}; \end{cases} \quad \gamma_0 = 1, \quad (6)$$

причем они представляются в виде

$$R_0(\lambda; \beta; A) = F_0(\lambda; \beta; A)F_0(-\lambda; \beta; A), \quad (7)$$

$$R_1(\lambda; \gamma; A) = F_1(\lambda; \gamma; A)F_0(-\lambda; \gamma; A) \quad (8)$$

где

$$F_0(\lambda; \beta; A) = \prod_{j=1}^3 (\lambda E - \omega_{j,0}(\beta)A) = \lambda^3 E + c_{2,0}(\beta)\lambda^2 A + c_{1,0}(\beta)\lambda A^2 + c_{0,0}(\beta)A^3 \quad (9)$$

$$F_1(\lambda; \gamma; A) = \prod_{j=1}^3 (\lambda E - \omega_{j,1}(\gamma)A) = \lambda^3 E + a_{1,0}(\gamma)\lambda^2 A + a_{2,0}(\gamma)\lambda A^2 + a_{0,0}(\gamma)A^3 \quad (10)$$

Здесь  $\omega_{j,0}(\beta) = \omega_{j,0}(\alpha) = -1$ ,  $\text{Re} \omega_{j,0}(\beta) < 0$ ,  $\omega_{j,1}(\gamma) < 0$ , при  $\beta \in [0, \beta_0)$  и  $\gamma \in [0, \gamma_0)$

а числа

$$c_{2,0} = 1 + 2\sqrt{\sqrt{q^2 - \beta} + 1 - q}, \quad c_{1,0} = \sqrt{2\sqrt{q^2 - \beta} + 1 - q} + \sqrt{q^2 - \beta} \quad (11)$$

$$c_{0,0}(\beta) = \sqrt{q^2 - \beta},$$

$$a_{2,1}(\gamma) = 1 + \sqrt{1-\gamma}, \quad a_{1,1} = \sqrt{1-\gamma} + q, \quad a_{1,0}(\gamma) = q \quad (12)$$

**Лемма 1.** Пусть  $u \in W_2^3(R_+; H)$ . Тогда

$$\begin{aligned} \|P_0 u\|_{W_2^1(R_+; H)}^2 &= \left\| \frac{d^3 u}{dt^3} \right\|_{L_2(R_+; H)}^2 + (2-2q) \left\| A \frac{d^2 u}{dt^2} \right\|_{L_2(R_+; H)}^2 + \\ &+ (q^2 + 1 - 2q) \left\| A \frac{du}{dt} \right\|_{L_2(R_+; H)}^2 + q^2 \|A^3 u\|_{L_2(R_+; H)}^2 - \|\varphi\|^2, \end{aligned}$$

где  $\varphi = A^{1/2} u''(0)$ .

**Лемма 2.** При  $u \in W_2^3(R_+; H)$  имеет место равенство

$$\|F_1(d/dt; \gamma; A)u\|_{L_2(R_+; H)}^2 + (\alpha_{21}(\gamma) - 1) \|P_0 u\|_{W_2^1(R_+; H)}^2 - \gamma \left( \left\| A \frac{du}{dt} \right\|_{W_2^1(R_+; H)}^2 \right) \quad (21)$$

**Лемма 3.** При  $u \in W_2^3(R_+; H)$  имеет место равенство

$$\|F_0(d/dt; \beta; A)u\|_{L_2(R_+; H)}^2 + (c_{2,1}(\beta) - \beta) \|\varphi\|_{1/2}^2 = \|P_0 u\|_{W_2^1(R_+; H)}^2 - \beta \|A^2 u\|_{W_2^1(R_+; H)}^2 \quad (22)$$

Отметим что из теоремы 1 следует, что в пространстве  $W_2^3(R_+; H)$  нормы  $\|P_0 u\|_{W_2^1(R_+; H)}$  и  $\|u\|_{W_2^3(R_+; H)}$  эквивалентны, поэтому конечны следующие нормы

$$N_1 = \sup_{0 \neq u \in W_2^3(R_+; H)} \left\| A \frac{du}{dt} \right\|_{W_2^1(R_+; H)} \cdot \|P_0 u\|_{W_2^1(R_+; H)}^{-1} \quad (23)$$

и

$$N_0 = \sup_{0 \neq u \in W_2^3(R_+; H)} \|A^2 u\|_{W_2^1(R_+; H)} \cdot \|P_0 u\|_{W_2^1(R_+; H)}^{-1} \quad (24)$$

**Теорема 3.** Норма

$$N_1 = 1, \quad N_0 = \beta_0^{-1/2}.$$

**Теорема 4.** Пусть выполняются условия 1)-3) и  $q = N_1 \max(\|A_1\|_{H_1 \rightarrow H}, \|A_1\|_{H_2 \rightarrow H_1}) + N_0 \max(\|A_2\|_{H_2 \rightarrow H}, \|A_2\|_{H_3 \rightarrow H_1}) < 1$  где числа  $N_1$  и  $N_0$  определены из теоремы 3. Тогда задача (1) и (2) регулярно разрешимо в  $W_2^3(R_+; H)$ .

**Ключевые слова:** Гилбертово пространство, операторно-дифференциальных уравнений, гладких решений, вектор-функций, самосопряжённый оператор.

## BOUNDARY VALUE PROBLEM FOR OPERATOR-DIFFERENTIAL EQUATIONS.

Let  $H$  - a separable Hilbert space,  $A$  - positive definite self-adjoint operator in  $H$ ,  $H_\gamma (\gamma \geq 0)$  a scale of Hilbert spaces generated by the operator  $A$ , i.e.

$$H_\gamma = D(A^\gamma), (x, y)_\gamma = (A^\gamma x, A^\gamma y), \quad x, y \in H_\gamma$$

Let  $L_2(R_+; H)$  be a Hilbert space vector – functions  $f(t)$  determined almost everywhere in  $R_+$ , with the values in  $H$ , for which

$$\|f\|_{L_2(R_+; H)} = \left( \int_0^\infty \|f(t)\|^2 dt \right)^{1/2}$$

Following the monograph [1] define the following space for natural  $m \geq 1$ :

$$W_2^m(R_+; H) = \{u(t) : u^{(m)}(t) \in L_2(R_+; H), A^m u(t) \in L_2(R_+; H)\}$$

with the norm

$$\|u\|_{W_2^m(R_+; H)} = \left( \|u^{(m)}\|_{L_2(R_+; H)}^2 + \|A^m u\|_{L_2(R_+; H)}^2 \right)^{1/2}.$$

For  $m = 3$  we'll derive subspaces in  $W_2^3(R_+; H)$

$$W_2^3(R_+; H) = \{u / u \in W_2^3(R_+; H), u(0) = u'(0) = 0\}$$

The spaces  $L_2(R; H)$  and  $W_2^m(R; H)$  are  $R = (-\infty; \infty)$  are determined similarly.

Let  $L(X, Y)$  be a space of linear bounded operators acting from  $X$  to  $Y$ .

Consider in  $H$  the following boundary value problem

$$\frac{d^2 u}{dt^2} + (A + A_1) \frac{du}{dt} + (qA^2 + A_2)u(t) = f(t), \quad t \in R_+ \quad (1)$$

$$u(0) = u'(0) = 0 \quad (2)$$

where  $f(t), u(t) \in H$  for  $t \in R_+$  almost everywhere, and the operator coefficient satisfy the following conditions

1)  $q > 0$ .

2)  $A$  - is a positive –definite self –adjoint operator

3) The operator  $A_1 \in L(H_1, H) \cap L(H_2, H_1)$ ,  $A_2 \in L(H_2, H) \cap L(H_3, H_1)$ .

**Definition 1.** It for  $f(t) \in W_2^1(R_+; H)$  there exists the vector-function  $u(t) \in W_2^3(R_+; H)$  that satisfies equation (1) identically in  $R_+ = (0, \infty)$ , then  $u(t)$  will be called a smooth solution of equation (1) from  $W_2^3(R_+; H)$ .

**Definition 2.** If for any  $f(t) \in W_2^1(R_+; H)$  there exists smooth solution  $u(t)$  of equation (1) from  $W_2^3(R_+; H)$  that satisfies is estimation

$$\|u\|_{W_2^3(R_+; H)} \leq \text{const} \|f\|_{W_2^1(R_+; H)},$$

Then (1), (2) is called regularly solvable in the space  $W_2^3(R_+; H)$ .

Denote by

$$P_0 u = P_0 (d/dt)u = u'' + Au + qA^2 u, \quad u \in \overset{0}{W}_2^3(R_+; H)$$

$$P_1 (d/dt) = A_1 \frac{du}{dt} + A_2 u, \quad u \in \overset{0}{W}_2^3(R_+; H)$$

$$Pu = P_0 u + P_1 u \quad u \in \overset{0}{W}_2^3(R_+; H).$$

**Theorem 1.** Let conditions 1) and 2). be fulfilled .Then the operator  $P_0$  isomorphically maps the space  $\overset{0}{W}_2^3(R_+; H)$  onto  $L_2(R_+; H)$ .

**Теорема 2.** Let  $q > 0$ . Then for  $\beta \in [0, \beta_0)$ , and for  $\gamma \in [0, \gamma_0)$  operator bundles (4) and (5) have no spectrum on the imaginary axis ,where

$$\beta_0 = \begin{cases} q^2, & 0 < q \leq \frac{1}{2} \\ \frac{(4q-1)}{4}, & q > \frac{1}{2}; \end{cases} \quad \gamma_0 = 1, \quad (6)$$

and they are represented in the form

$$R_0(\lambda; \beta; A) = F_0(\lambda; \beta; A)F_0(-\lambda; \beta; A), \quad (7)$$

$$R_1(\lambda; \gamma; A) = F_1(\lambda; \gamma; A)F_1(-\lambda; \gamma; A) \quad (8)$$

Where

$$F_0(\lambda; \beta; A) = \prod_{j=1}^3 (\lambda E - \omega_{j,0}(\beta)A) = \lambda^3 E + c_{2,0}(\beta)\lambda^2 A + c_{1,0}(\beta)\lambda A^2 + c_{0,0}(\beta)A^3 \quad (9)$$

$$F_1(\lambda; \gamma; A) = \prod_{j=1}^3 (\lambda E - \omega_{j,1}(\gamma)A) = \lambda^3 E + a_{1,0}(\gamma)\lambda^2 A + a_{2,0}(\gamma)\lambda A^2 + a_{0,0}(\gamma)A^3 \quad (10)$$

Here  $\omega_{j,0}(\beta) = \omega_{j,0}(\alpha) = -1$ ,  $\text{Re } \omega_{j,0}(\beta) < 0$ ,  $\omega_{j,1}(\gamma) < 0$ , for  $\beta \in [0, \beta_0)$  and  $\gamma \in [0, \gamma_0)$  and the numbers

$$c_{2,0} = 1 + 2\sqrt{\sqrt{q^2 - \beta} + 1 - q}, \quad c_{1,0} = \sqrt{2\sqrt{q^2 - \beta} + 1 - q} + \sqrt{q^2 - \beta} \quad (11)$$

$$c_{0,0}(\beta) = \sqrt{q^2 - \beta},$$

$$a_{2,1}(\gamma) = 1 + \sqrt{1 - \gamma}, \quad a_{1,1} = \sqrt{1 - \gamma} + q, \quad a_{1,0}(\gamma) = q \quad (12)$$

**Lemma 1.** Let  $u \in \overset{0}{W}_2^3(R_+; H)$ . Then

$$\|P_0 u\|_{W_2^1(R_+; H)}^2 = \left\| \frac{d^3 u}{dt^3} \right\|_{L_2(R_+; H)}^2 + (2 - 2q) \left\| A \frac{d^2 u}{dt^2} \right\|_{L_2(R_+; H)}^2 +$$

$$+ (q^2 + 1 - 2q) \left\| A \frac{du}{dt} \right\|_{L_2(R_+; H)}^2 + q^2 \|A^3 u\|_{L_2(R_+; H)}^2 - \|\varphi\|^2,$$

где  $\varphi = A^{1/2} u''(0)$ .



**Lemma 2.** При  $u \in W_2^3(R_+; H)$  it holds the following equality

$$\|F_1(d/dt; \gamma; A)u\|_{L_2(R_+; H)}^2 + (\alpha_{21}(\gamma) - 1) = \|P_0u\|_{W_2^1(R_+; H)}^2 - \gamma \left( \left\| A \frac{du}{dt} \right\|_{W_2^1(R_+; H)}^2 \right) \quad (21)$$

**Лемма 3.** For  $u \in W_2^3(R_+; H)$  it holds the following equality

$$\|F_0(d/dt; \beta; A)u\|_{L_2(R_+; H)}^2 + (c_{2,1}(\beta) - \beta) \|\varphi\|_{1/2}^2 = \|P_0u\|_{W_2^1(R_+; H)}^2 - \beta \|A^2u\|_{W_2^1(R_+; H)}^2 \quad (22)$$

Note that it follows from theorem 1 that in space  $W_2^3(R_+; H)$  the norms  $\|P_0u\|_{W_2^1(R_+; H)}$  and  $\|u\|_{W_2^3(R_+; H)}$  are equivalent, therefore the following norms are finite

$$N_1 = \sup_{0 \neq u \in W_2^3(R_+; H)} \left\| A \frac{du}{dt} \right\|_{W_2^1(R_+; H)} \cdot \|P_0u\|_{W_2^1(R_+; H)}^{-1} \quad (23)$$

and

$$N_0 = \sup_{0 \neq u \in W_2^3(R_+; H)} \|A^2u\|_{W_2^1(R_+; H)} \cdot \|P_0u\|_{W_2^1(R_+; H)}^{-1} \quad (24)$$

**Theorem 3.** The norm

$$N_1 = 1, \quad N_0 = \beta_0^{-1/2}.$$

**Theorem 4.** Let conditions 1)-3) be fulfilled, and

$q = N_1 \max(\|A_1\|_{H_1 \rightarrow H}, \|A_1\|_{H_2 \rightarrow H_1}) + N_0 \max(\|A_2\|_{H_2 \rightarrow H}, \|A_2\|_{H_3 \rightarrow H_1}) < 1$  where the numbers  $N_1$  and  $N_0$  are determined from theorem 3. respectively. Then problems (1) and (2) is regularly solvable in  $W_2^3(R_+; H)$ .

**Key words:** Gilbert space, operator-differential equations, smooth solutions, vector-functional, self-adjoint operator.

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REF: Akademik Teşvik

## İLGİLİ MAKAMA

12.ULUSLARARASI MARDİN ARTUKLU BİLİMSEL ARAŞTIRMALAR KONGRESİ 17-19 Ağustos 2024 tarihinde Mardin, Türkiye’de (çevrimiçi) 29 farklı ülkenin (Türkiye, Azerbaycan, Kazakistan, Morocco, Nigeria, Pakistan, Bulgaria, Algeria, Albania, Republic of Kosovo, India, Bangladesh, Indonesia, Ukraine, Hungary, Vietnam, Malaysia, Jordan, Uzbekistan, Canada, México, Portugal, North Cyprus, Romania, Bucharest, Libya, Tunisia, Republic of Moldova, France) 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.

Bilgilerinize arz edilir,

Saygılarımla



**Prof. Dr. Salih ÖZTÜRK**  
Head of Conference



T.C.  
ADİYAMAN ÜNİVERSİTESİ  
Teknik Bilimler Meslek Yüksekokulu Müdürlüğü



Sayı :E-10585088-200--152573  
Konu :Görevlendirme ( Dr.Öğr. Üyesi Mehtap  
DEMİR)

DAĞITIM YERLERİNE

İlgi : 05.07.2024 tarihli ve 152515 sayılı yazınız.

İlgi yazıya istinaden, Bölümünüz Dr. Öğr. Üyesi Mehtap DEMİR'in 17-19 Ağustos 2024 tarihleri arasında, Mardin'de düzenlenecek olan "12. Uluslararası Mardin Artuklu Bilimsel Araştırmalar Kongresi"nin Düzenleme Kurulu ve ayrıca Kongre Bilim ve Danışma Kurulunda görev alması Müdürlüğümüzce uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Doç. Dr. Kadir GÜÇLÜER  
Meslek Yüksekokulu Müdürü

Dağıtım:  
Gereği:  
Elektrik ve Enerji Bölümüne

Bilgi:  
Sayın Murat TEKİN  
Sayın Dr.Öğr.Üyesi Mehtap DEMİR

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