

# VI. INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SYMPOSIUM

*April 28-30, 2021, Giresun, TURKEY*

## ABSTRACTS BOOK

### Editors

**Dr. Egor DEDE**  
**Zhuldyz SAKHI**



# ABSTRACTS BOOK

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**BLACK SEA NETWORK  
FOR INTERCULTURAL OOMHUNJIJOATUONJS  
(BIC)**

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# ABOUT SYMPOSIUM

## INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SYMPOSIUM-6

**Keynote & Invited participation type**  
DATE - PLACE

April 28-30, 2021/ Giresun, TURKEY

### **ORGANIZATION**

BLACK SEA NETWORK FOR INTERCULTURAL COMMUNICATIONS  
GIRESUN UNIVERSITY  
KARASAM- BLACKSEA RESEARCH CENTER at GIRESUN UNIVERSITY  
GIRESUN MUNICIPALITY

### **PARTICIPANT INSTITUTES**

Atlas International Journal  
Ejons International Journal

### **HONORARY HEAD**

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Culture and Tourism Provincial Director of Giresun

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Dr. Bulent HANER

Zhuldyz SAKHI

### **LANGUAGES**

Turkish, English, Russian

**TOTAL NUMBER OF PAPERS: 222**

**THE NUMBER OF PAPERS FROM TURKEY: 98**

**OTHER COUNTRIES-124**

### **INTERNATIONAL PARTICIPANTS**

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United Arab Emirates, Israel, Azerbaijan,  
Ethiopia, Moldova, Nigeria, Iran, Romania, Morocco. Pakistan, Czech Republic,  
, Georgia, India, Greece, Hong Kong (China),  
Algeria, Russia, Thailand, Lebanon, France

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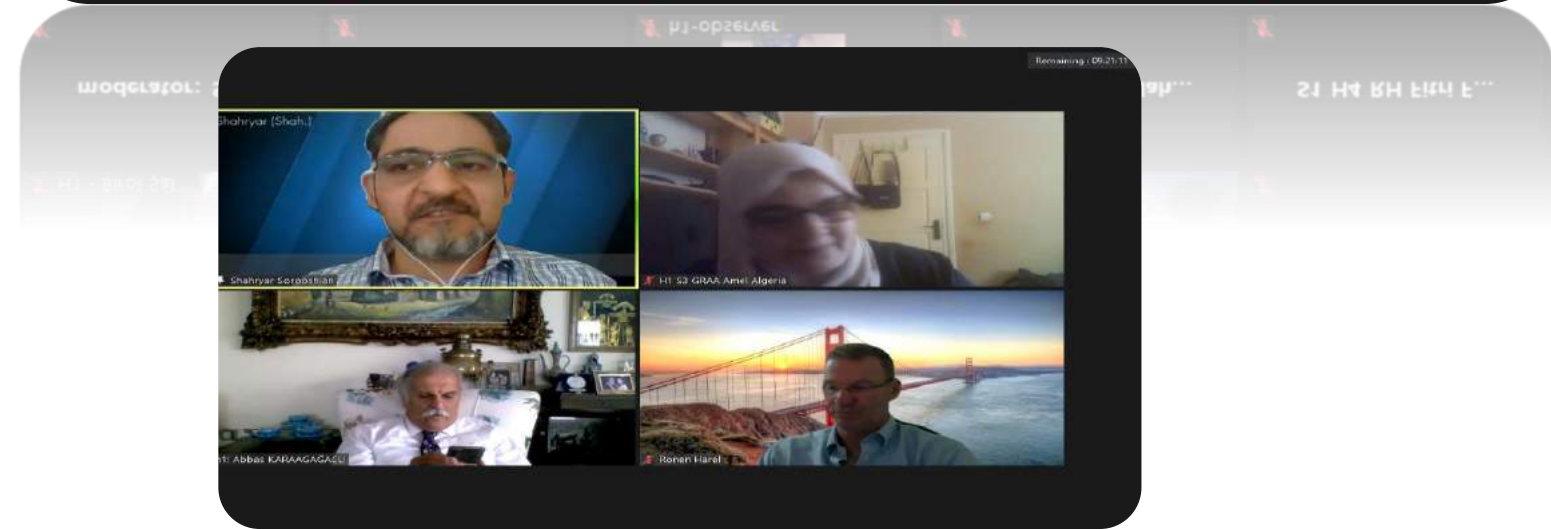
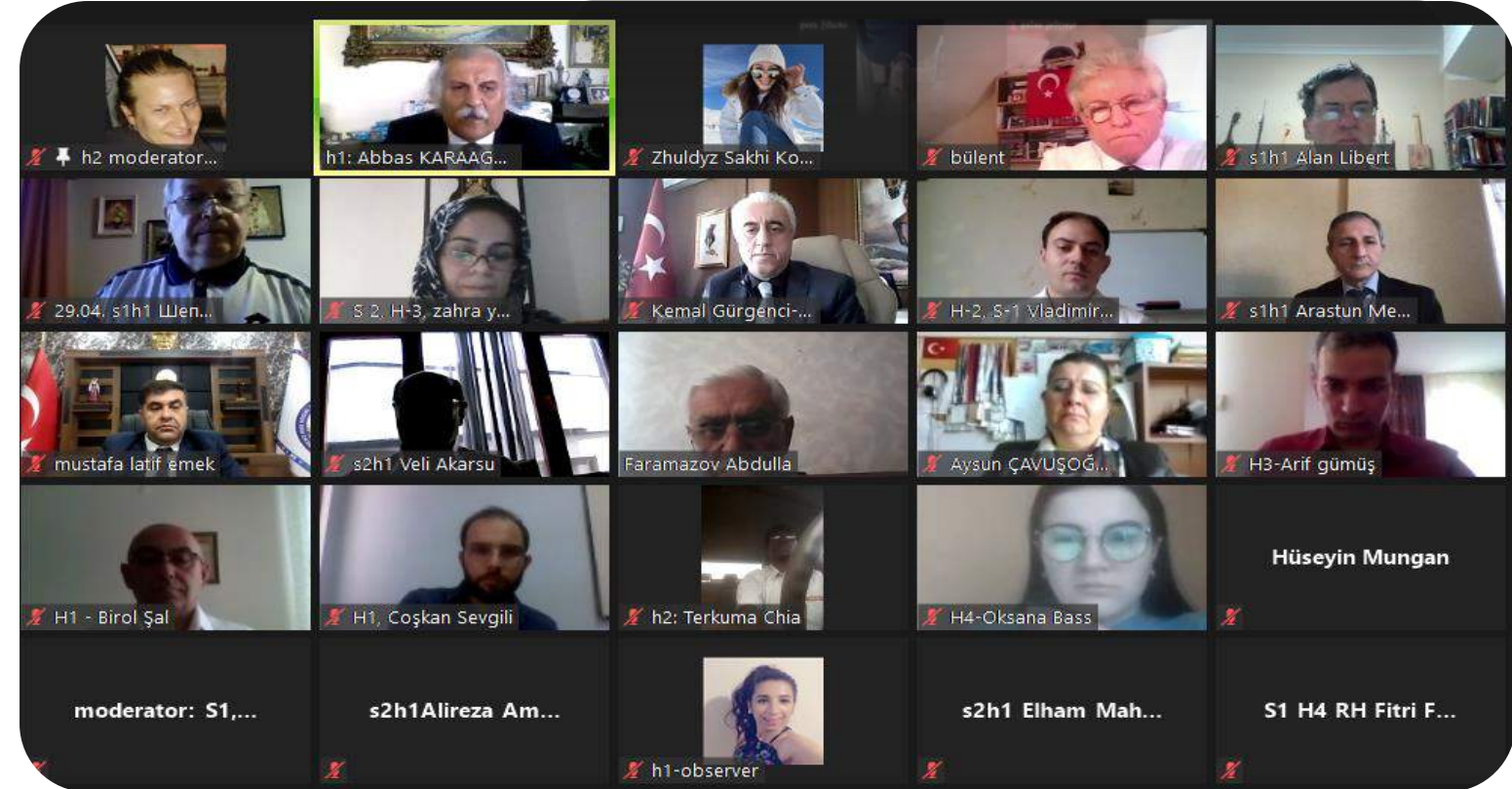
**Dr. Ulbosın KIYAKBAEVA**  
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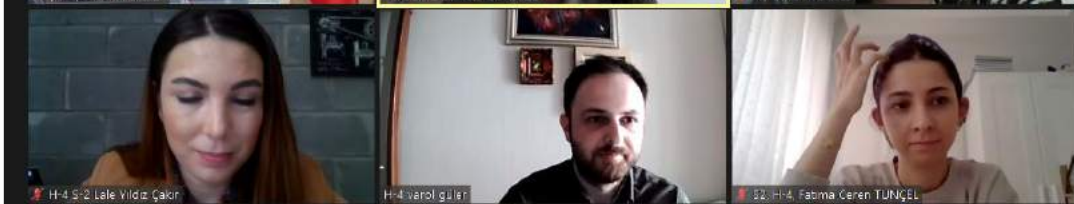
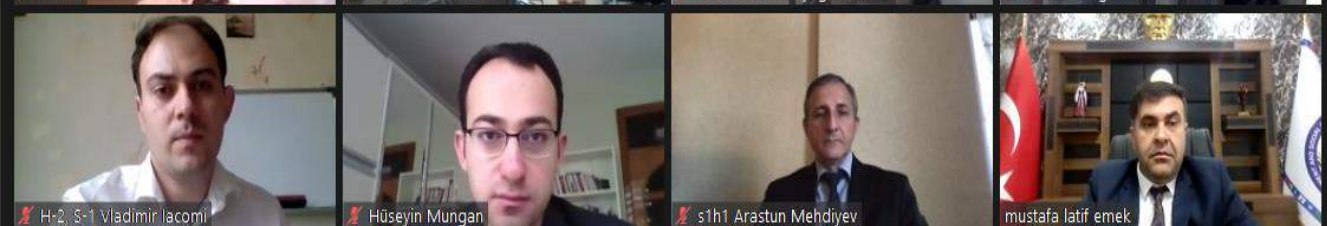
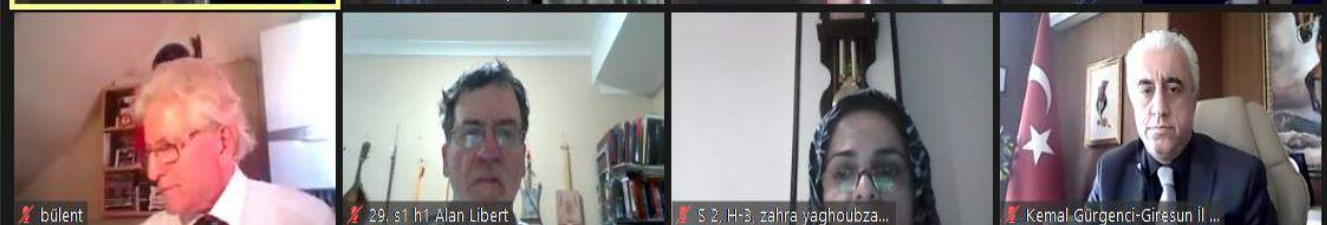
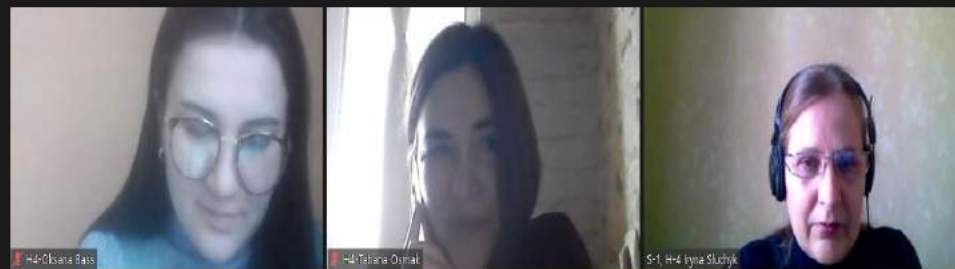
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**Dr. Vlademir GÖRSEL**  
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# SYMPOSIUM GALLERY





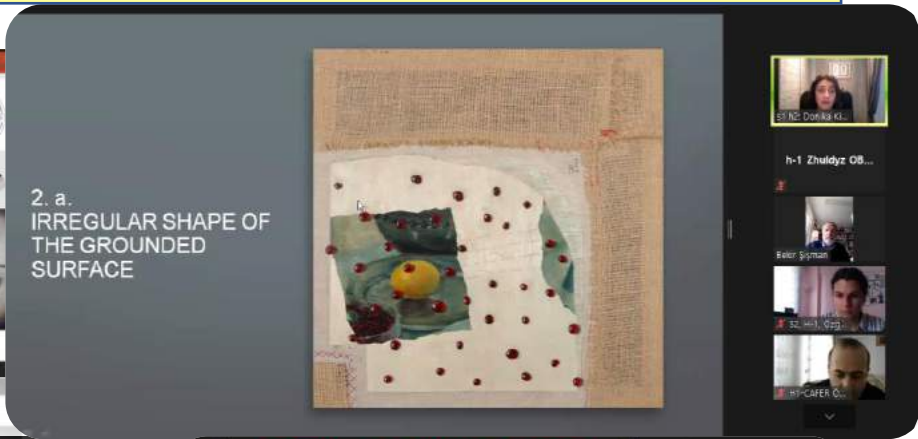
# PRESENTATION SAMPLES



As indicator insect groups: determination of sub-species of some bacteria in *Nepa* spp. Species' gut microbiota

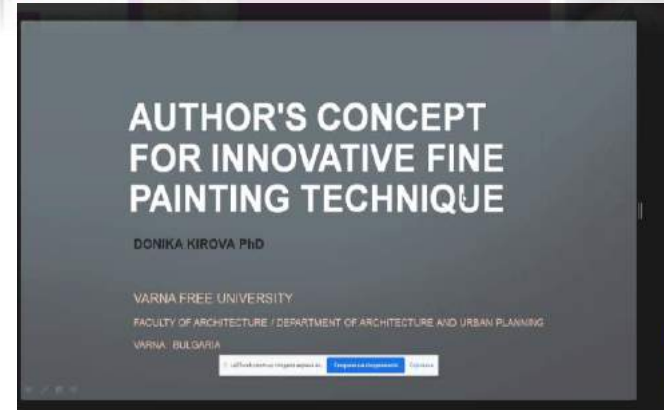
Water Scorpion

Asst. Prof. Mehmet BEKTAŞ  
Asst. Prof. Figen ÇİBİKAN  
Prof. Özlem BAĞIÇ  
Atatürk University



2. a. IRREGULAR SHAPE OF THE GROUNDLED SURFACE

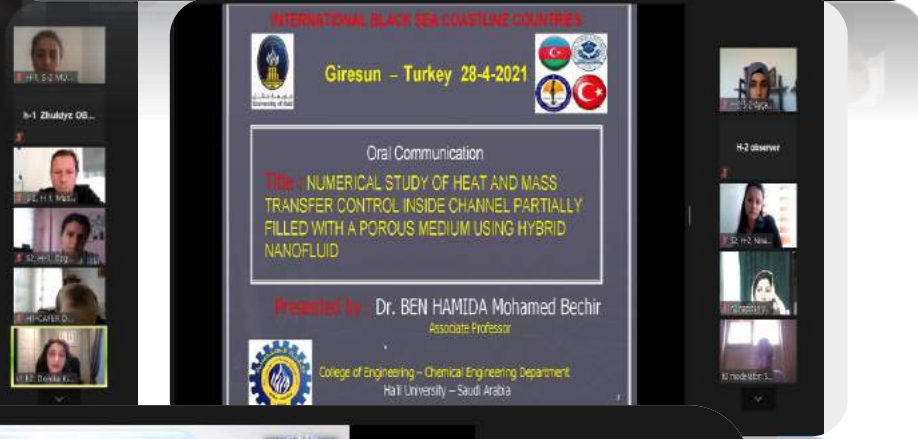
h-1 Zhuldyz OB...  
Etiler Şişman  
h-1 H. Özgü...  
h-1 CAFER Ö...



AUTHOR'S CONCEPT FOR INNOVATIVE FINE PAINTING TECHNIQUE

DONIKA KIROVA PhD

VARNA FREE UNIVERSITY  
FACULTY OF ARCHITECTURE / DEPARTMENT OF ARCHITECTURE AND URBAN PLANNING  
VARNA, BULGARIA



INTERNATIONAL BLACK SEA COASTLINE COUNTRIES  
Giresun - Turkey 28-4-2021

Oral Communication

THE NUMERICAL STUDY OF HEAT AND MASS TRANSFER CONTROL INSIDE CHANNEL PARTIALLY FILLED WITH A POROUS MEDIUM USING HYBRID NANOFUID

Presented by Dr. BEN HAMIDA Mohamed Bechir  
Associate Professor

College of Engineering - Chemical Engineering Department  
Ha'il University - Saudi Arabia

h-1 H. Özgü...  
h-1 CAFER Ö...  
h-1 K. Donika K...  
h-2 observer  
h-2 H. N. N. N...  
h-2 H. N. N. N...  
h-2 K. N. N. N...

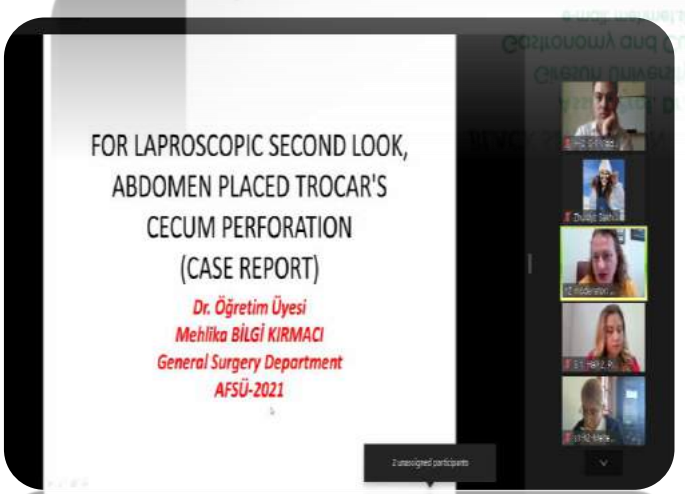


DOĞU KARADENİZ BÖLGESİNDE BALIKÇILIK TURİZMİ OLANAKLARI ÜZERİNE BİR DEĞERLENDİRME

AN EVALUATION ON FISHING TOURISM OPPORTUNITIES IN THE EAST BLACK SEA REGION

Assist. Prof. Dr. Mehmet ŞİMŞEK  
Giresun University/Faculty of Tourism  
Gastronomy and Culinary Arts Department  
e-mail: mehmet.simsek@giresun.edu.tr

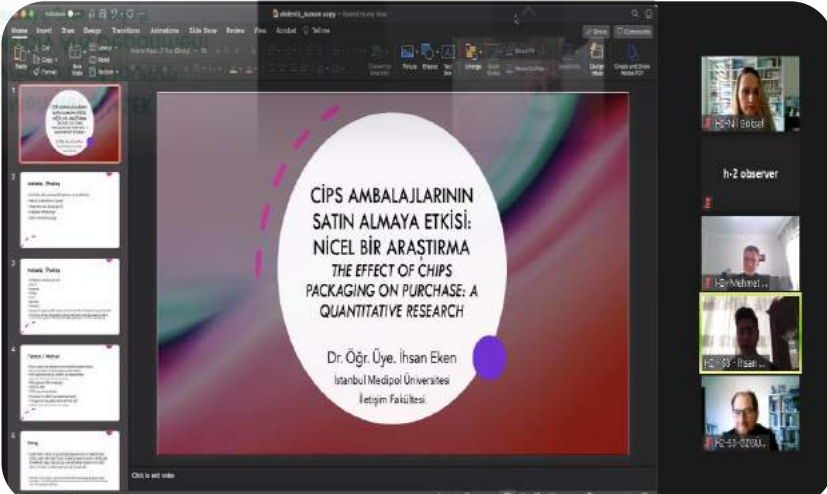
h-2 Mehmet Şi...  
h-2 observer  
h-2 H. Özgü - İhs...  
h-2 H-2-S3-ÖZGÜ...  
h-2 İbrahim T...



FOR LAPROSCOPIC SECOND LOOK, ABDOMEN PLACED TROCAR'S CECUM PERFORATION (CASE REPORT)

Dr. Öğretim Üyesi  
Mehlika BİLGİ KIRMACI  
General Surgery Department  
AFSÜ-2021

Unassigned participants



CİPS AMBALAJLARININ SATIN ALMAYA ETKİSİ: NİCEL BİR ARAŞTIRMA  
THE EFFECT OF CHIPS PACKAGING ON PURCHASE: A QUANTITATIVE RESEARCH

Dr. Öğr. Üye. İhsan Eken  
İstanbul Medipol Üniversitesi  
İletişim Fakültesi

h-2 observer  
h-2 H. N. N. N...  
h-2 H. N. N. N...  
h-2 H-2-S3-ÖZGÜ...

6. ULUSLARARASI KARADENİZ'E KIYISI OLAN ÜLKELER BİLİMSEL ARAŞTIRMALAR SEMPOZYUMU  
28-30 Nisan, 2021  
Giresun, Türkiye

# AN UNCOMMON SOFT TISSUE TUMOR: LIPOMA OF THE TONGUE

Alanur Çiftçi Şişman, DDS, PhD,  
University of Health Sciences



6. ULUSLARARASI KARADENİZ'E KIYISI OLAN ÜLKELER BİLİMSEL ARAŞTIRMALAR SEMPOZYUMU  
28-30 Nisan, 2021  
Giresun, Türkiye

**MENTHA LONGIFOLIA SPP. LONGIFOLIA' NIN UÇUCU YAĞININ ANTİOKSİDAN AKTİVİTESİ VE TOPLAM FENOLİK İÇERİĞİ**

**ANTIOXIDANT ACTIVITY AND TOTAL PHENOLIC CONTENT OF ESSENTIAL OIL OF MENTHA LONGIFOLIA SPP. LONGIFOLIA**

Asist. Prof. Dr. Ayça Aktaş Karaçelik

aycaaktas89@ihsustmail.com  
ayca.aktas@ihsustmail.edu.tr



INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH SYMPOSIUM - VI  
April 28-30, 2021 Giresun, TURKEY

**SYNTHESIS AND INVESTIGATION OF A NEW CRISTALLINE ORGANIC-INORGANIC HYBRID MATERIAL BASED ON ANTIMONY**

Realised by:  
**İmen Tili\*, Slaheddine Chaabouni**

University of Sfax, Department of Chemistry, Laboratory of Materials Science and Environment, Faculty of Sciences of Sfax, BP.N°1171, 3000, Sfax, Tunisia



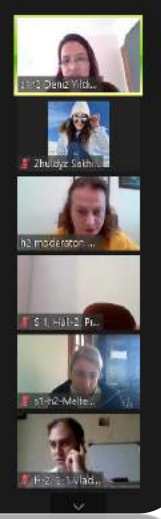
İZMİR KATİP CELEBİ ÜNİVERSİTESİ  
TIP FAKÜLTESİ

THE ROLE OF XYLAZİNE IN DEVELOPMENT OF TOLERANCE TO THE ANTINOCICEPTIVE EFFECT OF FENTANYL

NE KARŞI TOLERANS GELİŞİMİNDE XYLAZİNİN ROLÜ

Emel KARAA, Ahmet KOYU\*

Çocuklar Anestezi Uzmanı, İzmir, Türkiye



UNIVERSITATEA DE STAT DE MEDICINĂ ŞI FARMACIE "NICOLAE TESTEMIŢANU" DIN REPUBLICA MOLDOVA

**APPLICATION OF FIBROSCAN IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS**

Presenter: Vladimir Iacomi, MD  
Asst.Prof., Pediatrics Department

Scientific advisor: Ninel Revenco, PhD  
Prof., Chief of Pediatrics Department





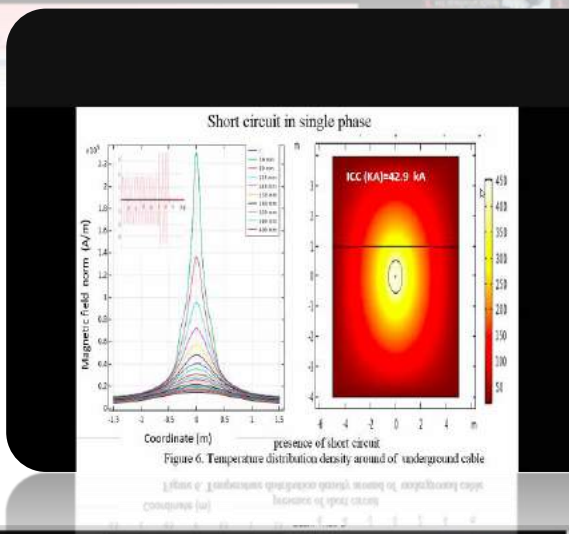
# SESSION SAMPLES

**Reading 1.0** → **Reading 2.0**

Reading 1.0: Reading about to students... they learn from struggling with vocabulary and decoding as they can only look and get into it later.

Reading 2.0: A brain filled with interconnected nodes representing a complex network of knowledge.

Zoom meeting grid showing 12 participants in a 4x3 layout. The top row includes a host and several participants. The bottom row includes participants named Vera Zirka and Dilarayici Naila...



Zoom meeting grid showing 9 participants in a 3x3 layout. Participants include H2-Serhan Haner, observer H2, H2-Veli Akarsu, H2-Ali Rıza DENİZ, H2-S1-Borislav Abrashev, H2-Dharshini Devi M, H2-bulent, H2-krika.WAFA, and H2-S1 OZAN BURAK DA...

Zoom meeting grid showing 12 participants in a 4x3 layout. Participants include H2-Serhan Haner, observer H2, H2-Veli Akarsu, H2-Ali Rıza DENİZ, H2-S1-Borislav Abrashev, H2-Dharshini Devi M, H2-bulent, H2-S1 OZAN BURAK DALGIC, H2-S1 Irina Denisova, H2-Arife Simsek, and H2-krika.WAFA.

Zoom chat window showing a list of participants: H2-Veli Akarsu, H2-Serhan Haner, H2-bulent, H2-Dharshini Devi M, H2-Ali Rıza DENİZ, H2-Arife Simsek, H2-krika.WAFA, H2-S1 OZAN BURAK DALGIC, H2-S1-Borislav Abrashev, and H2-S1 Irina Denisova.

Slide titled "THE THERMAL EFFECT OF HARMFUL AND SHORT CIRCUIT IN UNDERGROUND CABLE". The slide includes a diagram of a cable cross-section and text describing the thermal effects.

**S**

**Şekil (a)'ya göre,**

$\angle ACB = 90^\circ, BC = a, AC = b, AB = c, EF = x, FD = e - x$

$\angle BAC = \alpha, \angle EAC = \angle BAI = 90^\circ + \alpha$

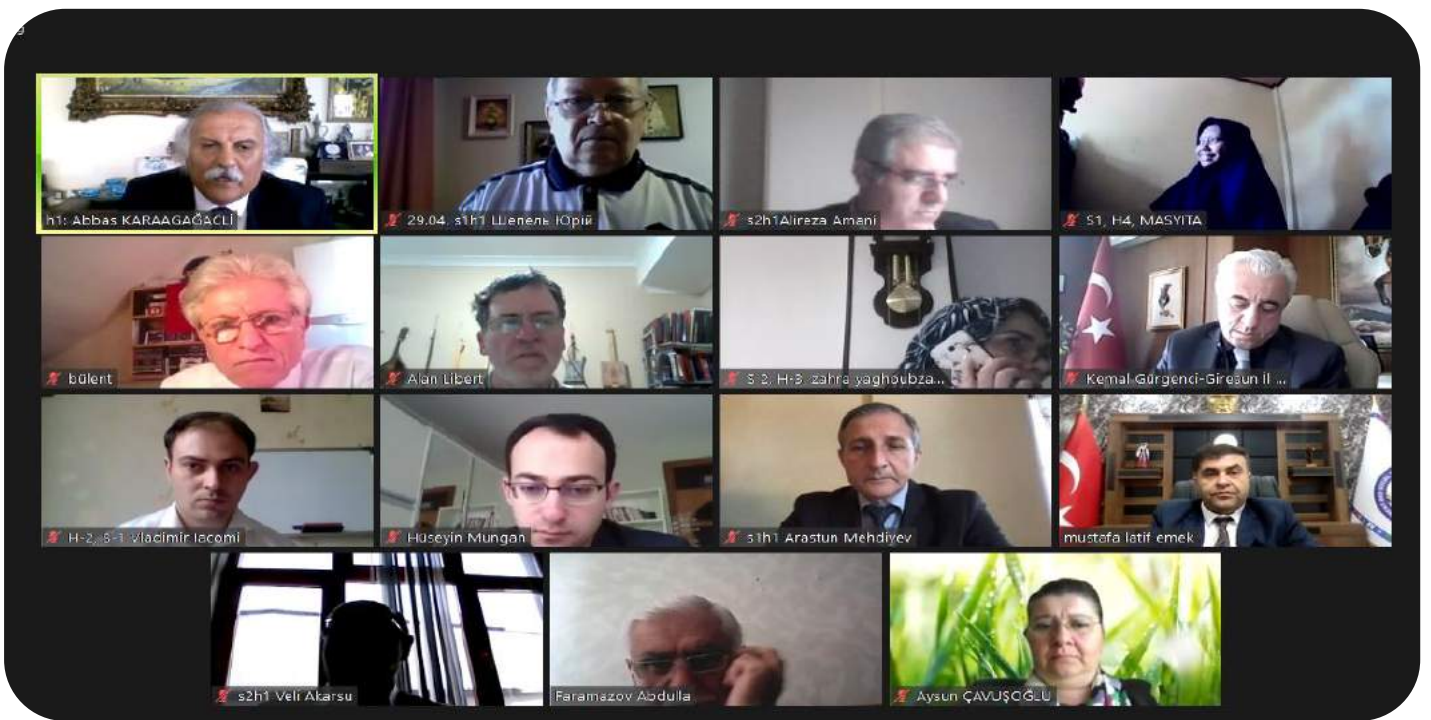
$\triangle ACE = \triangle AIB$  üçgenleri eşit üçgenler olmalarından dolayı alanları da eşittir.

$F_{ACE} = \frac{1}{2}xc, F_{AIB} = \frac{1}{2}b^2, xc = b^2$  (1)

olar:

$F_{AEFG} = xc, F_{ACHI} = b^2$

Zoom meeting grid showing 12 participants in a 4x3 layout. Participants include H2-Serhan Haner, observer H2, H2-Veli Akarsu, H2-Ali Rıza DENİZ, H2-S1-Borislav Abrashev, H2-Dharshini Devi M, H2-bulent, H2-güllem Bakan, H2-krika.WAFA, H2-S1 OZAN BURAK DA..., Konstantine Balazs, Hüseyin Mungan, and H2 S1 visitor.



## Helen Chan

### THE IMPORTANCE OF READING 2.0 ON MEETING THE NEEDS OF DIGITAL GENERATION

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Faculty of Education, The University of Hong Kong  
Hong Kong (China)  
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Helenc98\_1998@yahoo.com

INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH SYMPOSIUM - VI, April 28-30, 2021, Giresun, TURKEY on Apr 29, 2021 3:pp 6: 30 HKT



Poster for the symposium: DESIGN & FABRICATION OF μLEDs FOR HIGH DATA RATE LiFi COMMUNICATIONS. The poster includes the names of the authors: B. ALSHENRI, K. DOGHECHE, A. RAMDANI, E. DOGHECHE, and the affiliation: UNIVERSITE POLYTECHNIQUE HAUTS DE FRANCE, INSTITUT DE ELECTRONIQUE MICROELECTRONIQUE A NANOTECHNOLOGIE (ICM-UNIFR). The event is the INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH SYMPOSIUM - VI, Giresun, TURKEY April 2021.



Screenshot of a presentation slide titled "CALCIUM PHOSPHATES". The slide contains a table with chemical formulas and their corresponding molar masses.

Chemical Formula	Molar Mass (g/mol)
Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	310,17
CaHPO <sub>4</sub>	136,07
CaH <sub>2</sub> P <sub>2</sub> O <sub>7</sub>	234,07
Ca <sub>10</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>6</sub>	1000,06
Ca <sub>5</sub> (OH)(PO <sub>4</sub> ) <sub>3</sub>	502,03
Ca <sub>4</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub>	404,04
Ca <sub>3</sub> (OH)(PO <sub>4</sub> ) <sub>2</sub>	306,05
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub>	208,06
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·xH <sub>2</sub> O	208,06 + 18x
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·2H <sub>2</sub> O	244,08
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·4H <sub>2</sub> O	280,10
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·6H <sub>2</sub> O	316,12
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·8H <sub>2</sub> O	352,14
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·10H <sub>2</sub> O	388,16
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·12H <sub>2</sub> O	424,18
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·14H <sub>2</sub> O	460,20
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·16H <sub>2</sub> O	496,22
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·18H <sub>2</sub> O	532,24
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·20H <sub>2</sub> O	568,26
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·22H <sub>2</sub> O	604,28
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·24H <sub>2</sub> O	640,30
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·26H <sub>2</sub> O	676,32
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·28H <sub>2</sub> O	712,34
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·30H <sub>2</sub> O	748,36
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·32H <sub>2</sub> O	784,38
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·34H <sub>2</sub> O	820,40
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·36H <sub>2</sub> O	856,42
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·38H <sub>2</sub> O	892,44
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·40H <sub>2</sub> O	928,46
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·42H <sub>2</sub> O	964,48
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·44H <sub>2</sub> O	1000,50
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·46H <sub>2</sub> O	1036,52
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·48H <sub>2</sub> O	1072,54
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·50H <sub>2</sub> O	1108,56
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·52H <sub>2</sub> O	1144,58
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·54H <sub>2</sub> O	1180,60
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·56H <sub>2</sub> O	1216,62
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·58H <sub>2</sub> O	1252,64
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·60H <sub>2</sub> O	1288,66
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·62H <sub>2</sub> O	1324,68
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·64H <sub>2</sub> O	1360,70
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·66H <sub>2</sub> O	1396,72
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·68H <sub>2</sub> O	1432,74
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·70H <sub>2</sub> O	1468,76
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·72H <sub>2</sub> O	1504,78
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·74H <sub>2</sub> O	1540,80
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·76H <sub>2</sub> O	1576,82
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·78H <sub>2</sub> O	1612,84
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·80H <sub>2</sub> O	1648,86
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·82H <sub>2</sub> O	1684,88
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·84H <sub>2</sub> O	1720,90
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·86H <sub>2</sub> O	1756,92
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·88H <sub>2</sub> O	1792,94
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·90H <sub>2</sub> O	1828,96
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·92H <sub>2</sub> O	1864,98
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·94H <sub>2</sub> O	1900,00
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·96H <sub>2</sub> O	1936,02
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·98H <sub>2</sub> O	1972,04
Ca <sub>2</sub> (OH) <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> ·100H <sub>2</sub> O	2008,06



# INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SCIENTIFIC RESEARCH SYMPOSIUM – VI



## CONFERENCE PROGRAM

APRIL 28-30, 2021  
GİRESUN, TURKEY



**Meeting ID: 823 8400 4210**  
**Passcode: 897386**

*Participating Countries Turkey, Azerbaijan, Ethiopia, Moldova, Nigeria, Bulgaria, Ukraine, Indonesia, Tunisia, Iran, Romania, Morocco. Pakistan, Czech Republic, Sweden, United Arab Emirates, Israel, Georgia, India, Greece, Bulgaria, Hong Kong (China), Algeria, Algeria, Russia, Thailand, Lebanon, France*

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# ~Opening Ceremony~

28.11.2020



09<sup>30</sup>-10<sup>00</sup>

• **Turkey Local Time**

*Head of Symposium*

**DR. ABBAS KARAAĞAÇLI**

*Head of Black Sea Strategic  
Research and Application Center  
Giresun University*

*Head of Organizing Committee*

**DR. BÜLENT HANER**

*Zonguldak Bulent Ecevit University*

*Invited Speaker*

**Kemal GÜRGENCİ**

*Culture and Tourism Provincial Director of Giresun*

**Mustafa Latif EMEK**

*Chairman of the  
Institute of Economic Development and Social Research  
(IKSAD)*

**Hall~1, Session~1**  
**28.04.2021, Wednesday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Dr. Abbas KARAAĞAÇLI**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Ilia Kozhoridze</i>	<i>Georgian Technical University Tbilisi, Georgia,</i>	<i>THE RELATIONSHIP BETWEEN GLOBALIZATION AND INSURANCE ACTIVITY IN THE REPUBLIC OF GEORGIA</i>
<i>Dr. Abbas KARAAĞAÇLI</i>	<i>Giresun University TURKEY</i>	<i>EFFECTS AND NEGATIVE RESULTS OF THE CORONAPANDEMIS ON THE PEOPLE AND ECONOMY OF AFGHANISTAN</i>
<i>Assos.prof.Dr. Arastun Mehtiev</i>	<i>Azerbaijan State Pedagogical University Azerbaijan</i>	<i>ON THE ISSUE OF COLLABORATION BETWEEN AZERBAIJAN AND RUSSIA IN INTERNATIONAL ENERGY PROJECTS ON THE CASPIAN</i>
<i>Shakir Huseyin VAHID</i>	<i>Azerbaijan Pedagogical University Azerbaijan</i>	<i>TURKISH-RUSSIAN RELATIONS AND THE ROLE OF THE MOSCOW AGREEMENT FOR NAKHCHIVAN</i>
<i>Asrat Mulat Samuel Tadesse</i>	<i>Wollo University Ethiopia</i>	<i>THE ECONOMIC EFFECTS OF COVID-19 PANDEMIC ON RURAL WOMEN IN ETHIOPIA</i>
<i>Asst. Prof. Emrullah METE</i>	<i>Giresun University TURKEY</i>	<i>DETERMINANTS OF ECONOMIC GROWTH IN TRANSITION ECONOMY COUNTRIES</i>
<i>Res. Ass. Ali GENÇ</i>	<i>Celal Bayar University TURKEY</i>	<i>BYZANTINE-SASANIAN WARS AND LAZ IN CAUCASIA (V.-VI. CENTURY)</i>
<i>Musa Mursaguliyev Saadat Aliyeva</i>	<i>Director of "Keshikchidag" State Historical-Cultural Reserve, Republic of Azerbaijan, Ağstafa city</i>	<i>OUR LIBERATED MONUMENTS AWAIT US</i>
<i>Ress. Asst. Coşkan SEVGİLİ Assoc. Prof. Ali Cemal TÖZ</i>	<i>Dokuz Eylül University TURKEY</i>	<i>INVESTIGATION OF FACTORS CAUSING DETENTION OF TURKISH FLAGGED SHIPS UNDER PORT STATE CONTROL REGIMES</i>
<i>Dr. Birol ŞAL</i>	<i>TURKEY</i>	<i>POST-COLD WAR PERIOD ALLIANCE STRUCTURES ON THE AXIS OF CONFLICT AND COOPERATION IN THE SOUTH CAUCASUS REGION</i>
<i>Prof. Dr. Orhan DOĞAN Etkin BOYUK</i>	<i>Kahramanmaraş Sütçü Imam University TURKEY</i>	<i>MYTHOLOGICAL ELEMENTS THAT SHOW THE DIRECTION-TIME AND WAY IN THE OLD TURKS</i>

**Hall-2, Session-1**  
**28.04.2021, Wednesday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Assist.Prof. Mehlika Bilgi Kirmaci**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Asst. Prof. Vladimir Iacomi Prof. Ninel Revenco</i>	<i>State University of Medicine and Pharmacy "Nicolae Testemitanu" Moldova</i>	<i>APLICATION OF FIBROSCAN IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS</i>
<i>Terkuma Chia Ohuwatosin Imoleayo Oyeniran Michael Ikechukwu Oraebosi</i>	<i>Nile University of Nigeria, Abuja</i>	<i>EXPERIENCES OF ANATOMY E-LEARNING DURING THE COVID-19 PANDEMIC</i>
<i>Pınar ARPACI Özgül BALCI Zeynep KORKMAZ</i>	<i>Manisa Celal Bayar University, TURKEY</i>	<i>ASSESSMENT OF OBESITY AND HYPERTENSION CONSTANT FROM METABOLIC SYNDROME RISK FACTORS IN VOCATIONAL SCHOOL OF HEALTH SERVICES</i>
<i>Zeynep KORKMAZ Pınar ARPACI Özgül BALCI</i>	<i>Manisa Celal Bayar University, TURKEY</i>	<i>EMOTIONAL LABOR AND BURNING IN NURSES DURING THE PANDEMIC PERIOD</i>
<i>Asst. Prof. Meltem KÖKDENER</i>	<i>Ondokuz Mayıs University, TURKEY</i>	<i>THE EFFECTS OF ZINC ON THE BIOLOGICAL CHARACTERISTICS OF LUCILIA SERICATA (DIPTERA: CALLIPHORIDAE)</i>
<i>Deniz YILDIZ PEHLİVAN Ali Yücel KARA Ahmet KOYU</i>	<i>Izmir Kâtip Celebi University TURKEY</i>	<i>THE ROLE OF XYLAZINE IN DEVELOPMENT OF TOLERANCE TO THE ANTINOCICEPTIVE EFFECT OF FENTANYL</i>
<i>Alanur Çiftçi Şişman</i>	<i>University of Health Sciences TURKEY</i>	<i>AN UNCOMMON INTRAMUSCULAR SOFT TISSUE TUMOR: LIPOMA OF THE TONGUE</i>
<i>Ebru YILMAZ Sena ÜNVER</i>	<i>Kocaeli State Hospital TURKEY</i>	<i>INVESTIGATION OF THE RELATIONSHIP BETWEEN MAGNESIUM LEVEL AND VITAMIN D, BONE MINERAL DENSITY, KNEE OSTEOARTHRITIS AND CHRONIC DISEASES</i>
<i>Assistant Professor Mehlika Bilgi Kirmaci</i>	<i>Afyonkarahisar Health Sciences University TURKEY</i>	<i>FOR LAPROSCOPIC SECOND LOOK, ABDOMEN PLACED TROCAR'S CECUM PERFORATION</i>
<i>Dr. Melike Ruşen Metin</i>	<i>İstanbul Medipol University TURKEY</i>	<i>THE PLACE OF DYNAMIC ULTRASOUND EXAMINATION IN DEVELOPMENTAL HIP DISPLASIA</i>

**Hall-3, Session-1**  
**28.04.2021, Wednesday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Assoc. Prof. Sadettin GÜLTEKİN**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Chief Assist, Prof. Stefan Kalpachev	University of economics-Varna, Bulgaria	CURRENT TRENDS IN JOBS CALL FOR CHANGE IN THE TRADITIONAL CAREER COUNSELLING MODELS
Dr. Cem Güney ÖZVEREN	İstanbul University TURKEY	RE-THINKING THE GROWTH STRATEGY DURING AND AFTER COVID-19 PROCESS. MUSIC INDUSTRY EXAMPLE
Assoc. Prof. Dr. Ceyda TANRIKULU	Adana Alparslan Turkes Science and Technology University TURKEY	EXAMINATION OF HEALTH SEEKING BEHAVIOUR OF CONSUMERS: A GENDER BASED APPROACH
Lect. PhD. Arif GÜMÜŞ Asst. Prof. Hakan ERKUŞ	Malatya Turgut Ozal University TURKEY	CONTRIBUTION OF ASLANTEPE MOUND TO THE DEVELOPMENT OF ACCOUNTING
Lect. PhD. Arif GÜMÜŞ	Malatya Turgut Ozal University TURKEY	EVALUATION OF THE ACCOUNTANT PROFESSION THROUGH THE NOVEL OF FERDİ AND ŞÜREKÂSI
Assoc. Prof. Sadettin GÜLTEKİN Eda GÜLTEKİN	Giresun University TURKEY	COVID-19 GLOBAL HEALTH CRISIS AND NEW PROTECTIONIST POLICY IMPLAMENTATIONS
Assoc. Prof. Sadettin GÜLTEKİN Eda GÜLTEKİN	Giresun University TURKEY	NEW PROTECTIONIST POLICY PRACTICES IN THE WORLD ECONOMY AND THE EFFECTS OF THE COVID-19 HEALTH CRISIS
Prof. Dr. Mehmet TUNÇER Lec. Yasemin YILDIRIM	Karadeniz Technical University TURKEY	MINIMUM SUBSISTENCE ALLOWANCE APPLICATION WITH A QUALITATIVE APPROACH IN TURKEY
Asst. Prof. Dr. Narman KUZUCU Asst. Prof. Dr. Serpil KUZUCU	Beykent University TURKEY	A BIBLIOMETRIC ANALYSIS OF THE YIELD CURVE AND THE TERM STRUCTURE OF INTEREST RATES



**Hall-4, Session-1**  
**28.04.2021, Wednesday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Asst. Prof. Iryna SLUCHYK**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Asst. Prof. Oleg GALENKO Vladislav SHAPOVALOV</i>	<i>National University of Food Technology Kyiv, Ukraine,</i>	<i>PROMISING DOMESTIC RAW MATERIALS FOR USE IN MEAT PRODUCTS</i>
<i>Masyita Yulia Pratiwi Muh. Syukri S, M. P Dr. R.H Fitri Faradila</i>	<i>Halu Oleo University, Kendari, Indonesia</i>	<i>THE EFFECT OF ENCAPSULATION ON SOLUBILITY AND THE BITTER TASTE OF WHITE TURMERIC EXTRACT</i>
<i>Associate prof. Ivona Dimitrova, PhD Chief assist. Milena Bozhilova- Sakova, PhD</i>	<i>Institute of Animal Science – Kostinbrod, Bulgaria University of Forestry, Sofia, Bulgaria</i>	<i>COMPARATIVE ANALYSIS OF BMPR-1B/FecB GENE IN THREE BULGARIAN SHEEP BREEDS</i>
<i>Asst. Prof. Iryna SLUCHYK</i>	<i>Vasyl Stefanyk Precarpathian National University Ukraine</i>	<i>INDICATORS OF SPERMATOGENESIS IN THE LAKE FROG (PELOPHYLAX RIDIBUNDUS) IN THE ZONE OF THE INFLUENCE OF BURSHTYN THERMAL POWER PLANT</i>
<i>Bhola Khan</i>	<i>Yobe State University, Damaturu, Nigeria</i>	<i>FOOD SECURITY INDEX FOR ECONOMIC COMMUNITY OF WEST- AFRICAN STATES (ECOWAS)</i>
<i>Prof. Galina POLISCHUK Assoc. Prof. Tetiana OSMAK Assist. Oksana BASS M. Sc. Artur MYKHALEVYCH</i>	<i>Educational and Research Institute of Food Technology, National University of Food Technologies, Kyiv, Ukraine,</i>	<i>THE NUTRITIONAL VALUE STUDY OF ACIDOPHILIC-WHEY ICE CREAM</i>
<i>Oksana FURSIK</i>	<i>Institute of Food Technologies, Kyiv, Ukraine</i>	<i>GELLING PROPERTIES OF COMPOSITIONS CONTAINING PROTEIN</i>

**Hall-5, Session-1**  
**28.04.2021, Wednesday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR:**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Assoc. Prof. Z.T.Bakhshieva Assoc. Prof. G.A.Hasanova Assoc. Prof. A.Sh.Rustamzade, PhD, Ass.A.F.Rustamova, Ass.A.A.Rustamzade	Azerbaijan Medical University, Azerbaijan	THE MECHANISMS OF FORMATION OF ALIMENTARY MOTIVATION IN DIFFERENT CONDITIONS OF THE ORGANISM
Assos.Prof. Baydamirova Arzu, Asst. prof Bayramova Narmin	Azerbaijan Medical University, Azerbaijan	PURINE AND LIPID METABOLISM PRODUCTS AS ONE OF THE IMPORTANT FACTORS IN ARTERIAL HYPERTENSION TREATMENT
Dr. Gulnara Ibrahim AZIZOVA PhD Arzu Ramiz DADASHOVA PhD Gulnara Sabir DASHDAMIROVA	Azerbaijan Medical University, Azerbaijan	IMPACT OF HOMOCYSTEINE ON OXIDATIVE STRESS IN COOLEY'S ANEMIA
Iskenderova Z.Sh Akhundov I.A.	Azerbaijan Medical University, Odlar Yurdu University Azerbaijan	THE PRIMARY IMPORTANCE OF MODERN AUTOMATIC HEMATOLOGICAL ANALYZERS
Jafarova G.A., Abilova R.G., Shahverdiyeva I.J.	Research laboratory at the Department of Biochemistry, Azerbaijan Medical University, Baku	ПОКАЗАТЕЛИ ПЕРЕКИСНОГО ОКИСЛЕНИЕ И СРЕДНЕ-МОЛЕКУЛЯРНЫХ ПЕПТИДОВ У БОЛЬНЫХ РАКОМ ЯИЧНИКОВ
Mahira Amirova Firudin Ellada Huseynova Eldar Dashdemirova Gulnara Sabir	Azerbaijan Medical University	A Novel Look at Antibiotic Therapy and Vaccination suspend in COVID-19 Era

**Hall-1, Session-2**  
**28.04.2021, Wednesday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Asst. Prof. Bülent HANER**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Gözde ÖZKAN TÜKEL Ahmet YÜCESAN Tunahan TURHAN	Isparta University TURKEY	CHARACTERIZATION OF CLAD AND G-CLAD HELICES IN MINKOWSKI 3-SPACE
Prof. Dr. Alireza Amani, PhD STU. Elham Mahichi	Azad University, Amol, Iran	BOSE-EINSTEIN CONDENSATE DARK MATTER IN VISCOUS $f(T, B)$ GRAVITY
Assoc. Prof. Varol KOÇ	Ondokuz Mayıs University TURKEY	INVESTIGATION OF LIGHT STEEL MANUFACTURING AND JOINING METHODS
Assoc. Prof. Varol KOÇ	Ondokuz Mayıs University TURKEY	EXAMINATION OF UNWANTED ARCHITECTURAL IRREGULARITIES IN BUILDING TYPE STRUCTURES
Tunahan TURHAN Ahmet YÜCESAN Gözde ÖZKAN TÜKEL	Ondokuz Mayıs University TURKEY	ASSOCIATED PSEUDO SPHERICAL PARTNER OF A NON-NUL Lorentzian Space Curve
Asst. Prof. İlknur ŞENTÜRK	Sivas Cumhuriyet University TURKEY	USE OF MEMBRANE BIOREACTORS IN MUNICIPAL AND INDUSTRIAL WASTEWATER TREATMENT
Nur Sena EYCEYURT DİVARCI Asst. Prof. İlknur ŞENTÜRK	Sivas Cumhuriyet University TURKEY	INVESTIGATION OF THE TREATMENT OF WATERS CONTAINING CHROMIUM (VI) BY FITOREMEDIATION, A BIOLOGICAL METHOD
Asst. Prof. Bülent HANER Asst. Prof. Veli AKARSU Asst. Prof. Fatih SÜNBÜL Asst. Prof. Erdoğan KAYMAKÇI Lect. Hüseyin MÜNGAN	Z. Bülent Ecevit University TURKEY	INVESTIGATION OF THE DISTRIBUTION OF GASES CONNECTED TO THE PARAFIN HUNCH ACCORDING TO SPESIFIC DEPTH IN BOLU- YENİÇAĞA POWDER

**Hall-2, Session-2**  
**28.04.2021, Wednesday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Assist. Prof. Dr. Servet AŞKIN**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Asist. Prof. Dr. Ayça AKTAŞ KARAÇELİK Assoc. Prof. Dr. Sedat BOZARI	Giresun University TURKEY	ANTIOXIDANT ACTIVITY AND TOTAL PHENOLIC CONTENT OF ESSENTIAL OIL OF MENTHA LONGIFOLIA SSP. LONGIFOLIA
Tuğba MEŞELİ Assos.Prof. Dr. Şengül Dilem DOĞAN Prof.Dr. Zülbiye KÖKBUDAK	Erciyes University TURKEY	SYNTHESIS OF MOLECULES CONTAINING THIOPHEN-THIAZOLE-SULPHONAMIDE STRUCTURES
Asst. Prof. Dr. Selbi Keskin	Giresun University TURKEY	THE SYNTHESIS OF NOVEL INDOLE N- ACYLHYDRAZONE DERIVATIVES
Assist. Prof. Dr. Servet AŞKIN	Iğdir University TURKEY	THE EFFECT OF POTASSIUM PERMANGANATE ON THE DETERMINATION OF TUNGSTEN IN İĞDIR DRINKING WATERS WITH ICP-MS
Nina KANEVA Assya BOJINOVA Karolina PAPAZOVA	University of Sofia, Sofia	SYNTHESIS OF ZnO, ZnFe 2 O 4 and ZnO/ZnFe 2 O 4 FILMS AND INVESTIGATION OF THEIR PHOTOCATALYTIC EFFICIENCIES
Nina KANEVA Assya BOJINOVA Karolina PAPAZOVA	University of Sofia, Sofia	ANATASE/RUTILE COMPOSITES – ON THE PHOTOCATALYTIC DEGRADATION OF ORANGE II AZO-DYE
Miss. Imen Tlili Prof. Dr. Slaheddine Chaabouni	University of Sfax, Sfax, Tunisia	SYNTHESIS AND INVESTIGATION OF A NEW CRISTALLINE ORGANIC- INORGANIC HYBRID MATERIAL BASED ON ANTIMONY
Hadiseh Yazdani Nyaki Asst. Prof. Nosrat O. Mahmmodi	University of Guilan, Rasht, Iran	NOVEL SYNTHESIS OF NEW BIS- THIAZOLIDINE-2, 4-DIONE AS ANTIMICROBIAL AGENT
Assoc.Prof.Dr. Aysun ÇAVUŞOĞLU BSc. Yalçın YILDIRIM	Kocaeli University TURKEY	INHIBITION AND DELAYING EFFECTS OF FRUIT ON SEEDLING EMERGENCE OF Melia azedarach L. COMPARED WITH ENDOCARP AND SEED
Mohamed Bechir BEN HAMIDA	Hail University, Hail City, Saudi Arabia	NUMERICAL STUDY OF HEAT AND MASS TRANSFER CONTROL INSIDE CHANNEL PARTIALLY FILLED WITH A POROUS MEDIUM USING HYBRID NANOFLUID

**Hall~3, Session~2**  
**28.04.2021, Wednesday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Prof. Dr. Murat KİBAR**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Research Asist. Yeter ÇİLESİZ Asist. Prof. Muhammad Azhar NADEEM Prof. Dr. Tolga KARAKÖY	Sivas University TURKEY	ASSESSING THE PERFORMANCE OF HUNGARIAN VETCH GENOTYPES FOR AGRONOMIC AND HAY YIELD TRAITS
Asist. Prof. Muhammad Azhar NADEEM Research Asist. Yeter ÇİLESİZ Prof. Dr. Tolga KARAKÖY	Sivas University TURKEY	ASSESSING THE PERFORMANCE COMMON VETCH GENOTYPES FOR AGRONOMIC AND HAY YIELD TRAITS
Prof. Dr. Fikret YAŞAR Assoc. Prof. Ozlem UZAL	Yuzuncu YIL University TURKEY	EFFECT OF DIFFERENT NUTRIENT SOLUTION CONCENTRATIONS AND LIGHT INTENSITY ON THE DEVELOPMENT OF TOMATO PLANT
Assoc. Prof. Ozlem UZAL Prof. Dr. Fikret YAŞAR	Yuzuncu YIL University TURKEY	EFFECTS OF DIFFERENT DOZES COMMERCIAL MICROBIAL FERTILIZER ON GERMINATION OF ONION SEEDS
Sait Engindeniz Turğay Taşkın Çağrı Kandemir Nedim Koşum	Ege University TURKEY	AN EVALUATION ON THE FUTURE OF GOAT MILK PRODUCTION IN TURKEY
Turğay TAŞKIN Çağrı KANDEMİR Sait ENGİNDENİZ Nedim KOŞUM	Ege University TURKEY	CURRENT SITUATION and FUTURE of SHEEP'S MILK PRODUCTION in TURKEY
Asst. Prof. Özlem ARSLAN	Giresun University TURKEY	PHYSIOLOGICAL CHANGES OF WHEAT GROWN UNDER BOTH DEFICIENCY AND TOXICITY CONDITIONS OF BORON
Prof. Dr. Murat KİBAR	Artvin University TURKEY	EFFECTS OF XYLAZINE/KETAMINE ANESTHESIA AND THEIR REVERSAL BY ATIPAMEZOLE ON ECHOCARDIOGRAPHIC VALUES IN CATS
Prof. Dr. Murat KİBAR	Artvin University TURKEY	INTRAOPERATIVE EFFECTS OF INTRATESTICULAR LIDOCAINE IN CATS WITH XYLASINE-PROPOFOL ANESTHESIA UNDERGOING ROUTINE CASTRATION
Assoc. Prof. Dr. Habip MURUZ	Ondokuz Mayıs University TURKEY	AMINO ACID NUTRITION FOR DAIRY CATTLE
Assoc. Prof. Dr. Habip MURUZ	Ondokuz Mayıs University TURKEY	EVALUATION OF THE EFFECTIVENESS OF DIET FACTORS THAT REDUCED THE RISK OF SUBCLINICAL HYPOCALCEMIA IN DAIRY CATTLE

**Hall~4, Session~2**  
**28.04.2021, Wednesday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Dr. Lale YILDIZ**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Kamal koohi</i>	<i>University of tabriz-tabriz-Iran</i>	<i>WOMEN'S BODY IN THE CHALLENGING BETWEEN HEALTHY AND BEAUTY</i>
<i>Ali BATUR Ahmet KÖSE Kadir KÜÇÜKCERAN</i>	<i>Hacettepe University TURKEY</i>	<i>EXAMINATION OF SPORT INJURIES DURING 2017 WINTER EUROPEAN YOUTH OLYMPIC FESTIVAL</i>
<i>Esra Nur BAYRAK Ömer Faruk YÜKSEL Assoc. Prof. Dilek ÖZTAŞ Assist. Prof. Dr. Abdullah YILDIZBAŞI Prof. Dr. Ergün ERASLAN</i>	<i>Yıldırım Beyazıt University TURKEY</i>	<i>SPECIAL RISK GROUPS IN WORKING LIFE</i>
<i>Ömer Faruk YÜKSEL Esra BAYRAK Dilek ÖZTAŞ Abdullah YILDIZBAŞI Ergün ERASLAN</i>	<i>Ankara Yıldırım Beyazıt University TURKEY</i>	<i>INTERNATIONAL CONTRACTS AND ORGANIZATIONS IN THE FIELD OF OCCUPATIONAL HEALTH AND SAFETY</i>
<i>Prof. Dr. Sacide PEHLİVAN Bio. Fatma Ceren TUNÇEL Msc. Bio. Yasemin OYACI</i>	<i>Istanbul University TURKEY</i>	<i>TELOMERES AND TELOMER-RELATED DISEASES IN HUMANS: TELOMERAPATHIES</i>
<i>Msc. Bio. Yasemin OYACI Msc. Bio. Varol GÜLER Prof. Dr. Sacide PEHLİVAN</i>	<i>Istanbul University TURKEY</i>	<i>CELL CULTURE AND METHODS USED IN THE STUDY OF MOLECULAR MECHANISMS IN CELLS</i>
<i>Asst. Prof. Dr. Deniz Zeynep SÖNMEZ</i>	<i>Osmaniye Korkut Ata University TURKEY</i>	<i>EMERGENCY NURSING IN COVID-19 PANDEMIC</i>
<i>Asst. Prof. Dr. Deniz Zeynep SÖNMEZ</i>	<i>Osmaniye Korkut Ata University TURKEY</i>	<i>ELDERLY HEALTH IN THE COVID-19 PANDEMIC</i>
<i>Dr. Lale YILDIZ Dr. S.Sevil ULUDAĞ UYANIKER</i>	<i>Mugla Sitki Kocman University TURKEY</i>	<i>INVESTIGATION OF SOME PSYCHOLOGICAL CHARACTERISTICS OF ATHLETES DEALING WITH WATER SPORTS</i>
<i>Dr. Lale YILDIZ Dr. S.Sevil ULUDAG UYANIKER Merve CIN</i>	<i>Mugla Sitki Kocman University TURKEY</i>	<i>THE RELATIONSHIP OF PSYCHOLOGICAL SKILLS, MAXIMAL STRENGTH AND PERFORMANCE IN TURKISH NATIONAL SAILING ATHLETES: A PILOT STUDY</i>
<i>Associate Professor G.E. Kerimzade</i>	<i>Azerbaijan Medical University Baku, Azerbaijan</i>	<i>REGULARITIES OF DISTRIBUTION OF MUSCULAR BRANCHES OF THE FACIAL NERVE</i>

**Hall-5, Session-2**  
**28.04.2021, Wednesday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

<b>MODERATOR: Assoc. Prof. Dr. Ivaylo Staykov</b>		
<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Asst. Prof. Juanita GOICOVICI</i>	<i>University Babeş-Bolyai of Cluj-Napoca, Faculty of Law, Private Law Department, Cluj-Napoca, Romania,</i>	<i>THE PROCESSING OF CONSUMERS' BIOMETRIC DATA IN B2C CONTRACTS UNDER EU REGULATIONS</i>
<i>Associate Professor.Dr Ivaylo Staykov</i>	<i>New Bulgarian University, Sofia, Bulgaria</i>	<i>NATURE AND SIGNIFICANCE OF THE DECLARATIONS OF THE INTERNATIONAL LABOUR ORGANIZATION</i>
<i>Assist. Prof. Dr Bilge AKSAY, Assos. Prof. Dr. Utku GÜĞERÇİN</i>	<i>Adana Alparslan Turkes Science and Technology University TURKEY</i>	<i>COMPARISON BETWEEN ENTREPRENEURIAL EVENT MODEL AND PLANNED BEHAVIOUR MODEL: A THEORITICAL STUDY</i>
<i>Assist. Prof. Dr. Bilge AKSAY</i>	<i>Adana Alparslan Turkes Science and Technology University TURKEY</i>	<i>RENEWABLE ENERGY: REVIEW OF THE TURKISH LITERATURE</i>
<i>Dr. Maria Livia Stefănescu</i>	<i>Research Institute for Quality of Life (RIQL) – Romanian Academy Bucharest, Romania</i>	<i>STATISTICAL ANALYSIS OF THE LIFE VARIABLES PERCEPTION FOR AZERBAIJAN PEOPLE BY USING A NATIONAL REPRESENTATIVE SURVEY FROM 2011</i>
<i>Mohamed LAGHZAL Abdelfattah TOUZANI</i>	<i>Dhar El Mahraz University Morocco.</i>	<i>FUTURE SCENARIOS TO COME FROM GLOBALIZATION TO FREE TRADE</i>

**Hall-1, Session-3**  
**28.04.2021, Wednesday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Assoc. Prof. Shahryar Sorooshian**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Rehana KANWAL</i>	<i>National College of Business Administration and Economics, Lahore, Pakistan</i>	<i>COUSIN MARRIAGE IN THE LIGHT OF ISLAM AND MEDICAL SCIENCE</i>
<i>Dr. ABDELHAK Prof. Dr. GRAA Amel Dr. GERVILLE Zohra</i>	<i>Algeria Djillali Liabes University, Algeria</i>	<i>ASSESSING PERCEIVED QUALITY OF E-COMMERCE WEBSITES AND ITS IMPACT ON ALGERIAN CONSUMER BEHAVIOR</i>
<i>Milena JANAKOVA</i>	<i>Silesian University in Opava Czech Republic</i>	<i>CRM CHALLENGE FOR THE 21ST CENTURY</i>
<i>Assoc. Prof. Shahryar Sorooshian Prof. Md Yusuf Ismail</i>	<i>University of Gothenburg, Gothenburg, Sweden</i>	<i>VISA SEEKERS; A NEW FORM OF TOURISM</i>
<i>Dr. Adnan Jawabri</i>	<i>Al Khawarizmi International College Al Ain, United Arab Emirates</i>	<i>THE IMPACT OF EMPLOYEE RELATIONS ON EMPLOYEE PERFORMANCE: THE CASE STUDY OF</i>
<i>Grdzlishvili Nodar Kvaratskhelia Laura</i>	<i>Georgian Technical University Georgia</i>	<i>REGIONAL ASPECTS OF ASSESSMENT AND USE OF GEORGIA'S TOURISM-RECREATIONAL RESOURCE POTENTIAL</i>
<i>Dr. Ronen Harel Prof. Dafna Schwartz</i>	<i>Peres Academic Center, Rehovot, Israel</i>	<i>MINORITY INTEGRATION WITHIN GROWING ECONOMIC SECTORS IN MIXED REGIONS</i>



**Hall-2, Session-3**  
**28.04.2021, Wednesday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Asst. Prof. Dr. Mehmet ŞİMŞEK**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Lecturer İbrahim TÜRKMEN Asst. Prof. Emine ÇETİN ASLAN</i>	<i>Usak University TURKEY</i>	<i>THE ANALYSIS OF PERCEIVED STRESS AND EMOTIONAL EXHAUSTION LEVELS OF HEALTHCARE PROFESSIONALS IN COVID-19 PROCESS</i>
<i>Asst. Prof. Ayşen BAKKALOĞLU Asst. Prof. Mehmet AKYOL</i>	<i>Nisantasi University TURKEY</i>	<i>THE RELATIONSHIP OF COMMERCIAL OPENNESS AND ENERGY CONSUMPTION IN G-7 COUNTRIES</i>
<i>Asst. Prof. İhsan EKEN</i>	<i>İstanbul Medipol University TURKEY</i>	<i>THE EFFECT OF CHIPS PACKAGING ON PURCHASE: A QUANTITATIVE RESEARCH</i>
<i>Asst. Prof. Özgür KANBİR</i>	<i>Giresun University TURKEY</i>	<i>FOREIGN TRADE RELATIONS BETWEEN BLACK SEA COASTLINE COUNTRIES AND TURKEY FROM A LOGISTICS POINT OF VIEW</i>
<i>Asst. Prof. Özgür KANBİR</i>	<i>Giresun University TURKEY</i>	<i>EVALUATION OF THE BLACK SEA REGION PROVINCES IN TERMS OF HUMAN DEVELOPMENT INDEX</i>
<i>Lecturer, Dr. Nil GÖKSEL</i>	<i>Anadolu University TURKEY</i>	<i>BASIC COURSE STRUCTURE WITHIN EMERGENCY REMOTE EDUCATION</i>
<i>Asst. Prof. Dr. Mehmet ŞİMŞEK</i>	<i>Giresun University TURKEY</i>	<i>AN EVALUATION ON FISHING TOURISM OPPORTUNITIES IN THE EAST BLACK SEA</i>
<i>Asst. Prof. Dr. Mehmet ŞİMŞEK</i>	<i>Giresun University TURKEY</i>	<i>EVALUATION OF HAZELNUT FARMING IN GİRESUN WITHIN THE SCOPE OF TATUTA (AGRICULTURE-TOURISM-EXCHANGE)</i>
<i>Mohammad Hassan Gholami</i>	<i>M.A in Regional Studies, Shiraz University, Shiraz, Iran</i>	<i>BLACK SEA NEIGHBORING COUNTRIES; CAPACITIES OF COOPERATION AND COMPETITION</i>

**Hall-3, Session-3**  
**28.04.2021, Wednesday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Prof. Nino Ratiani**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Prof. Nino Ratiani</i>	<i>Georgian Technical University, Tbilisi, Georgia</i>	<i>NEW CHALLENGES IN THE FIELD OF CONSTRUCTION, THE IMPORTANCE OF A FULL ASSESSMENT OF RISK FACTORS AND ENSURING SAFETY</i>
<i>Seyed Mahmood Hashemi</i>	<i>KAR University, QAZVIN, Iran</i>	<i>CONVERSATIONAL AI: DIALOGUE SYSTEMS – INVESTIGATION OF A HYBRID SYMBOLIC AND NEURAL SOLUTION</i>
<i>Dr. M.Balakrishnan K.Kumarappan S.Navanitha Krishnan S.Boobala Kritiv</i>	<i>College of Engineering and Technology, Pollachi, Coimbatore, Tamil Nadu, India</i>	<i>REAL-ESTATE PREDICTION USING MACHINE LEARNING</i>
<i>Nandhini K, Divya N Hemarithika S</i>	<i>College of Engineering and Technology, Pollachi, Coimbatore, Tamil Nadu, India</i>	<i>TWO LEVEL DIFFERENCE BINARY PATTERN FOR TEXTURE CLASSIFICATION</i>
<i>Mr.P.Ramprakash R.Gokul T.Manivasagam C.Praveen Kumar</i>	<i>College of Engineering and Technology, Pollachi, Coimbatore, Tamil Nadu, India</i>	<i>PREDICTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING</i>
<i>Georgios Charvalas Olga Christopolou</i>	<i>University of Thessaly Greece</i>	<i>RESTORATION OF CONTAMINATED SOILS OF ARSENIC (AS) AND LEAD (PB) BY ITS METHOD PHYTOSTABILIZATION. THE CASE OF LAVRIO (GREECE)</i>
<i>Associate Professor Maka Jishkariani Sofio Tsotskhalashvili</i>	<i>Georgian Technical University Georgia</i>	<i>WASTE PROCESSING FOR ENERGY PURPOSES IN GEORGIA</i>
<i>Asst. Prof. Ömer Faruk CANSIZ Saip Bora ÇELEBİ Ebru DOĞRU</i>	<i>İskenderun Teknik University TURKEY</i>	<i>SOLUTION OF THE TRAVEL SALES PROBLEM WITH THE ARCGIS PROGRAM AND COMPARISON WITH OTHER METHODS</i>
<i>Asst. Prof. Ömer Faruk CANSIZ Ebru DOĞRU Saip Bora ÇELEBİ</i>	<i>İskenderun Teknik University TURKEY</i>	<i>USING GIS AND INTUITIVE METHODS FOR ROUTE OPTIMIZATION IN WASTE RECYCLING</i>

**Hall-4, Session-3**  
**28.04.2021, Wednesday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Prof. Dr. Sedat İlhan**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Fatma KAHRİMAN Asst. Prof. Güzide ŞENEL</i>	<i>Amasya University TURKEY</i>	<i>APPLICATIN OF OCTAHEDRON SETS TO ALGEBRATIC STRUCTURES</i>
<i>Fatma KAHRİMAN Asst. Prof. Güzide ŞENEL</i>	<i>Amasya University TURKEY</i>	<i>APPLICATIN OF OCTAHEDRON SETS TO TOPOLOGICAL STRUCTURES</i>
<i>Prof. Dr. Sedat İlhan</i>	<i>Dicle University TURKEY</i>	<i>ON A FAMILY OF TRIPLY-GENERATED NUMERICAL SEMIGROUPS</i>
<i>Prof. Dr. Sedat İlhan</i>	<i>Dicle University TURKEY</i>	<i>SOME RESULTS ON A CLASS OF NUMERICAL SEMIGROUPS WITH MULTIPLICITY 7</i>
<i>Asst. Prof. Gulay OGUZ</i>	<i>Harran University TURKEY</i>	<i>SOFT TOPOLOGICAL QUASIGROUPS</i>
<i>Dr. Binyam Zigta</i>	<i>Wolaita Sodo University ETHIOPIA</i>	<i>THE EFFECT OF NANOPARTICLES ON MHD BLOOD FLOW IN STRETCHING ARTERIAL POROUS VESSEL WITH THE INFLUENCE OF THERMAL RADIATION, CHEMICAL REACTION AND HEAT GENERATION / ABSORPTION</i>
<i>R. R. Kairi G. Mahanta S. Shaw</i>	<i>Cooch Behar PanchananBarma University West Bengal, India.</i>	<i>THERMAL AND SOLUTAL MARANGONI STAGNATION POINT CASSON HYBRID NANO FLUID FLOW OVER A STRETCHING SHEET</i>
<i>Ibrahim NABIEV Mas. Chinara RZAYEVA</i>	<i>Baku State University Azerbaijan</i>	<i>THE INVERSE PROBLEM FOR THE STURM- LIOUVILLE OPERATOR WITH SEMI- SEPARATED BOUNDARY CONDITIONS</i>
<i>SANAE JELTI</i>	<i>MOHAMMED FIRST UNIVERSITY, MOROCCO.</i>	<i>NUMERICAL MODELING OF TWO DIMENSIONAL NON-CAPACITY MODEL FOR AGGRADATION AND DEGRADATION BY AN UNSTRUCTURED FINITE VOLUME METHOD WITH A NEW DISCRETIZATION OF THE SOURCE TERM</i>

**Hall-5, Session-3**  
**28.04.2021, Wednesday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Professor Dr. I. Nedkov**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Stoyanov D Grigorov I. Kolarov G. Iliev M. Angelova B. Ilieva R. Groudeva V. Zahra-Zheleva Z. Nedkov I.	Institute of Electronics, Bulgarian Academy Bulgaria	POSSIBILITIES FOR APPLICATION OF MOBILE IN SITU SAMPLING AND LIDAR MONITORING OF PARTICULATE MATTER IN LOWEST ATMOSPHERIC BIOAEROSOL
Mrs.R.Nivethitha, Dr.M.Praveena	Sri Sai Ranganathan Engineering College, Coimbatore, Tamil Nadu, India.	COMPARATIVE SURVEY ON VARIOUS ALGORITHMS OF UNDERWATER IMAGE ENHANCEMENT
Hadi Bahmani Davood Mostofinejad	Isfahan University of Technology Isfahan, Iran	EFFECT OF AUTOCLAVE CURING ON THE MECHANICAL PROPERTIES OF UHPC
Res. Asst. Ümmügülsüm MENGUTAYCI Dr. Lecturer. Hasan TEMURTAŞ	Tarsus University TURKEY	CLASSIFICATION OF TURKISH HOTEL REVIEWS BY ARTIFICIAL NEURAL NETWORKS
M.Shafai Bejestan, M.Derakhshande A.Asghari Pari	Chamran University of Ahvaz, Ahvaz, Iran	LABORATORY STUDY OF THE EFFECT OF ROUGH FLOATING PLATE ON THE DIMENSIONS OF THE SCOUR HOLE AROUND THE RECTANGULAR BRIDGE PIER
Morteza Khashehchi Kamel Hooman	University of Queensland, Brisbane, Australia	A COMPARATIVE ANALYSIS ON THE SHED VORTICES FROM THE WAKE OF FINNED AND FOAM-WRAPPED TUBES
Assos.Prof.Dr. Gül den SANDAL ERZURUMLU	Nigde Omer Halisdemir University TURKEY	EVALUATION OF CARAVAN AREAS IN TERMS OF LANDSCAPE ARCHITECTURE
Assos.Prof.Dr Gül den SANDAL ERZURUMLU	Nigde Omer Halisdemir University TURKEY	NATURAL PLANTS THAT USE IN HIGHWAY LANDSCAPE DESIGN
Asst. Prof. Dr. Derya VURAL	Giresun University TURKEY	INFLUENCE OF SUBUNIT AND LINKAGE SEQUENCES ON THE DYNAMICS AND STRUCTURE OF LIGNIN
Seda BAYRAM, Assoc. Prof. Dr. Alper SAĞLIK	Çanakkale Onsekiz Mart University TURKEY	TOOLS AND EQUIPMENT USED IN LANDSCAPE APPLICATIONS
Dilara Vahabova,	The Azerbaijan University of Architecture and Construction Azerbaijan	EVALUATION OF CARAVAN AREAS IN TERMS OF LANDSCAPE ARCHITECTURE

**Hall-1, Session-1**  
**29.04.2021, Thursday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Dr. Alan Reed LIBERT**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Dr. Said OUSSOU</i>	<i>University of Moulay Ismail, Faculty of Letters and Humanities, Morocco</i>	<i>THE CORRELATION BETWEEN EFL TEACHERS' PRACTICES REGARDING LEARNER AUTONOMY AND THEIR GENDER</i>
<i>Dr. Alan Reed LIBERT</i>	<i>University of Newcastle, Australia</i>	<i>A SURVEY OF FOODS AND RECIPES NAMED AFTER THE BLACK SEA</i>
<i>Zeynep ÖZŞEN Prof. Dr. Hüseyin KALKAN</i>	<i>Ondokuz Mayıs University TURKEY</i>	<i>TEACHING OF BASIC ASTRONOMY SUBJECTS IN VIRTUAL ENVIRONMENT WITH THE STUDENT-CENTERED EDUCATION MODEL</i>
<i>Vera Zirka</i>	<i>National Academy of Sciences of Ukraine</i>	<i>ADVERTISING GIVES ITS WORD</i>
<i>Prof. Yuri SHEPEL</i>	<i>Oles Honchar Dnipro National University Ukraine</i>	<i>SEMANTIC PROPERTIES OF MOTIVATORS AND THEIR INFLUENCE ON THE POTENTIAL OF MOTIVATS WHEN MODELING WORDS OF WORDS</i>
<i>Prof. Olena PANCHENKO</i>	<i>Oles Honchar Dnipro National University Ukraine</i>	<i>SYNTAX AS A WAY OF EXPRESSING EMOTIONS</i>
<i>Prof. Dr. Abdellah Chaiba Prof. Dr. Rachid Drissi El Bouzaidi</i>	<i>CRMEF Draa Tafilalet, Ouarzazate, Morocco</i>	<i>THE DIFFICULTIES FACED BY MOROCCAN GRADUATE STUDENTS DURING THE COMPLETION OF THEIR RESEARCH</i>
<i>Zahra Afzali Asst. Prof. Siros Izadpanah</i>	<i>Islamic Azad University, Zanjan, Iran,</i>	<i>THE EFFECT OF THE FLIPPED CLASSROOM MODEL ON IRANIAN ENGLISH FOREIGN LANGUAGE LEARNERS: CRITICAL THINKING AND MOTIVATION IN ENGLISH LANGUAGE GRAMMAR</i>
<i>Nikoo Davarpanah Asst. Prof. Siros Izadpanah</i>	<i>Islamic Azad University, Zanjan, Iran,</i>	<i>THE RELATIONSHIP BETWEEN THE EFL LEARNERS' INTERPERSONAL INTELLIGENCE, THE FREQUENCY AND TYPES OF INFORMAL FALLACY AND EVIDENCE IN ARGUMENTATIVE WRITING</i>
<i>Shadi Yeganeh Asst. Prof. Siros Izadpanah</i>	<i>Islamic Azad University, Zanjan, Iran,</i>	<i>THE EFFECT OF PODCASTS AND VODCASTS AMONG MOTIVATED EFL LEARNERS OF ENGLISH: SPEAKING SKILLS AT DIFFERENT LEVELS</i>
<i>Helen Chan</i>	<i>The University of Hong Kong Hong Kong (China)</i>	<i>THE IMPORTANCE OF READING 2.0 ON MEETING THE NEEDS OF DIGITAL GENERATION</i>

**Hall-2, Session-1**  
**29.04.2021, Thursday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Asst. Prof. Veli AKARSU**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Asst. Prof. Serhan HANER Asst. Prof. Bülent HANER	Afyon Kocatepe University TURKEY	NEPHELINE SYENITE AS FLUX IN CERAMIC SANITARYWARE MANUFACTURING
Asst. Prof. Ali Rıza DENİZ	Hakkari University TURKEY	ANALYSIS OF CURRENT-VOLTAGE (I-V) CHARACTERISTICS OF Au / POLY (N- VINYLCAPOROLACTAM) / p-Si / Al HETEROJUNCTION DEPENDING ON TEMPERATURE
Ozan Burak DALGIÇ Dr. Arife ŞİMŞEK Prof. Gülfem BAKAN	Ondokuz Mayıs University TURKEY	EVALUATION OF WASTEWATER TREATMENT PERFORMANCE OF A METAL COATING INDUSTRY
Asst. Prof. Veli AKARSU Sesim Haypatya AKARSU	Z. Bülent Ecevit University TURKEY	ON PYTHAGORAS THEOREM AND PROOFS IN MATHEMATIC
Asst. Prof. Irina Denisova Assoc. Prof. Konstantine Bziava	Georgian Technical University Georgia	THE HYDROGEN SULFIDE LAYER AND THE ECOLOGICAL BALANCE OF THE BLACK SEA
DHARSHINI DEVI M Dr. Meenakumari R	Kongu Engineering College Perundurai, Erode, Tamil Nadu.	MITIGATION OF POWER SYSTEM VULNERABILITY BY ENERGY STORAGE SYSTEMS
Dr. Wafa KRIKA Dr. Ahmed Nour El Islam AYAD Dr. Larouci Benyekhlef Pr. Farid BENHAMIDA	Hassiba Benbouali University, Algeria	THERMAL EFFECT OF HARMONIC AND SHORT CIRCUIT IN UNDERGROUND ELECTRIC CABLE
Dr. Wafa KRIKA Dr. Ahmed Nour El Islam AYAD Dr. Larouci Benyekhlef Pr. Farid BENHAMIDA	Hassiba Benbouali University, Algeria	ELECTROMAGNETIC SIMULATION OF UNDERGROUND POWER CABLE PERFORATION BY NAIL
Dr. Wafa KRIKA Dr. Ahmed Nour El Islam AYAD Dr. Larouci Benyekhlef Pr. Farid BENHAMIDA	Hassiba Benbouali University, Algeria	ELECTROMAGNETIC SIMULATION OF SUBSEA POWER CABLE POLLUTION
Asst. Prof. Dr Borislav ABRASHEV, MSc Valenitn TERZIEV, Assoc. Prof. Elefteria LEFTEROVA Asst. Prof. D-r Mariela Dimitrova, Prof. Konstantin PETROV	Bulgarian Academy, Sofia 1113, Bulgaria	BIMETALLIC CATALYST FOR GAS DIFFUSION ELECTRODES (GDEs)

**Hall-3, Session-1**  
**29.04.2021, Thursday**  
**Ankara Time: 10<sup>00</sup>–12<sup>30</sup>**

**MODERATOR: Assos. Prof. Dr. Yeşim DAĞLIOĞLU**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Elena Sergeevna TKACHEVA</i>	<i>Vologda State Dairy Farming Academy named after N.V. Vereshchagin, Vologda, Russia</i>	<i>SUSTA-THROMBOCYTE INTERACTIONS IN PIGLETS</i>
<i>Amarja S. Khendkar</i>	<i>Shankarlal Khandehwal College, Akola, Maharashtra, India.</i>	<i>PLANT GROWTH PROMOTING AND ANTIFUNGAL POTENTIAL OF STREPTOMYCES MALACHITOSPINUS ANSP4 AND STREPTOMYCES ROCHEI ANSCA22.</i>
<i>Assos. Prof. Dr. Yeşim DAĞLIOĞLU Assos. Prof. Dr. Betül YILMAZ ÖZTÜRK</i>	<i>Ordu University TURKEY</i>	<i>INVESTIGATION AND EVALUATION OF ENGINEERING NANOPARTICLES CONCENTRATIONS IN DRINKING WATER</i>
<i>Assos. Prof. Dr. Yeşim DAĞLIOĞLU Assos. Prof. Dr. Betül YILMAZ ÖZTÜRK</i>	<i>Ordu University TURKEY</i>	<i>CYTOTOXIC AND GENOTOXIC EFFECTS OF NANOPARTICLES ON HUMAN AND ENVIRONMENT</i>
<i>Asst. Prof. Mehmet BEKTAŞ Asst. Prof. Figen ORHAN Prof. Özlem BARIŞ</i>	<i>Ataturk University TURKEY</i>	<i>AS INDICATOR INSECT GROUPS: DETERMINATION OF SUB-SPECIES OF SOME BACTERIA IN NEPA SPP. SPECIES' GUT MICROBIOTA</i>
<i>Asst. Prof. Dr. Latife Ceyda İRKİN</i>	<i>Çanakkale Onsekiz Mart University TURKEY</i>	<i>THE NF-κB IMMUNOREACTIVITY IN KIDNEY TISSUE OF RATS FED WITH CLAM DIET</i>
<i>Asst. Prof. Dr. Latife Ceyda İRKİN</i>	<i>Çanakkale Onsekiz Mart University TURKEY</i>	<i>THE MAJOR DANGER IN AQUATIC ECOSYSTEMS: MICROPLASTICS</i>
<i>Jafarova Khatira Hashim Tagiyeva Flora Shura</i>	<i>Azerbaijan Medical University Baku, Azerbaijan</i>	<i>GLOBAL WARMING OF TODAY'S CLIMATE AND MEASURES TO PREVENT ITS CHANGE</i>
<i>Aytakin GARİBLİ</i>	<i>Azerbaijan Medical University Baku, Azerbaijan</i>	<i>ELEMENT CONTENT OF MEDICAGO ORBICULARIS L.</i>
<i>Afag Akhundova Sefikhan Hasanov Pusta Orujova</i>	<i>Azerbaijan Medical University Baku, Azerbaijan</i>	<i>THE COMPARATIVE ANALYSIS OF KIDNEY DAMAGE BIOMARKERS IN LOW BIRTH WEIGHT SGA AND AGA NEWBORNS.</i>

**Hall-1, Session-2**  
**29.04.2021, Thursday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Prof. Dr. M. Kayhan KURTULDU**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Assos. Prof. Dr. Cafer ÖZDEMİR Prof. Dr. Bekir ŞİŞMAN	Ondokuz Mayıs University TURKEY	URBAN IMAGES IN FOLK SONGS: AMASYA EXAMPLE
Prof. Dr. Bekir ŞİŞMAN Assos. Prof. Dr. Cafer ÖZDEMİR	Ondokuz Mayıs University TURKEY	BAFRA REGION FOLK FESTIVALS IN THE CONTEXT OF CULTURAL PROTECTION
Donika Kiroua	PhD of Arts and Fine Arts, architect, VFU Chernorizets Hrabar Varna, Bulgaria	AUTHOR'S CONCEPT FOR INNOVATIVE FINE PAINTING TECHNIQUE
Prof. Dr. M. Kayhan KURTULDU	Trabzon University TURKEY	INVESTIGATION OF ATTITUDE SCALE DEVELOPMENT STUDIES IN PIANO EDUCATION IN TERMS OF SCALE STRUCTURES
Prof. Dr. M. Kayhan KURTULDU	Trabzon University TURKEY	EXAMINING THE VIEWS OF MUSIC TEACHERS ON THE CONCEPT OF ACCOMPANIMENT WITH PIANO IN TERMS OF VARIOUS VARIABLES
Assist. Prof. Dr. Semih ZEKA	Erciyes University TURKEY	SOME ATTENTIONS ON VASFİ MAHİR KOCATÜRK'S WORK TITLED 'ÖĞRETMENLİĞİN RUHU'
Duygu GÜR ERDOĞAN Başak TAŞDAN	Sakarya University TURKEY	STRUCTURAL REVIEW OF THESES ON WOMEN AND EDUCATION
Duygu GÜR ERDOĞAN Özgen YILMAZ	Sakarya University TURKEY	WOMEN IN THE TURKISH LANGUAGE INSTITUTION DICTIONARY
Lecturer Münire ÖZDEN Assist. Prof. Dr. Cafer ÇARKIT	Giresun University TURKEY	AN OVERVIEW OF LISTENING TYPES IN TURKISH EDUCATION
Assist. Prof. Dr. Cafer ÇARKIT Lecturer Münire ÖZDEN	Giresun University TURKEY	AN EVALUATION ON THE SCOPE OF ANALYTICAL THINKING IN TURKISH EDUCATION
Dr. Mustafa ÖZDERE	Niğde Ömer Halisdemir University, TURKEY	THE IMPORTANCE OF FAMILY EDUCATION AND PARTICIPATION IN EDUCATION TO SUPPORT THE SOCIAL ADAPTATION OF IMMIGRANT CHILDREN: AN EXEMPLARY MODEL



**Hall-2, Session-2**  
**29.04.2021, Thursday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Dr.Mustafa Latif Emek**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Assist. Prof. Dr. Mehmet Ali GAZİ</i>	<i>Malatya Turgut Ozal University TURKEY</i>	<i>THE DIASPORA PROPAGANDA IN THE PEOPLE'S REPUBLIC OF CHINA</i>
<i>Asst. Prof. Tolga SENTURK</i>	<i>Izmir Katip Celebi University TURKEY</i>	<i>SOCIAL MEDIA MARKETING OF ONLINE EDUCATION SERVICES: IKCUSEM CASE</i>
<i>Ph.D. student DOBRE IONEL</i>	<i>University of Craiova Romania</i>	<i>KEY ELEMENTS OF THE STUDY OF POLITICAL PARTIES IN THE DIGITAL ERA</i>
<i>Dr. Martin Binde, Gasu Dr. Samuel, Yakubu Adesina Kehinde Oluwatosin</i>	<i>Osun State University Nigeria.</i>	<i>A STUDY OF THE IMPACT OF EROSION ON THE IJEBU-ODE COMMUNITY IN OGUN STATE, NIGERIA.</i>
<i>Larasati Purwaningrum Prof. Dr. Sri Indah Nikensari Aditya Pratama</i>	<i>Universitas Negeri Jakarta,</i>	<i>THE EFFECT OF EASE OF DOING BUSINESS, MARKET SIZE AND POLITICAL STABILITY ON FOREIGN DIRECT INVESTMENT IN SOUTHEAST ASIA</i>
<i>Sarinthree Udchachone, Ph.D.</i>	<i>Maharakham University Thailand</i>	<i>RAISE AWARENESS AND PREPAREDNESS OF PASSENGERS AND SERVICE PROVIDERS DURING THE 2nd WAVE OF COVID-19 IN THAILAND</i>
<i>Rizkyana Sri Indah Nikensari Herlitha</i>	<i>Universitas Negeri Jakarta</i>	<i>THE INFLUENCE LEVEL OF EDUCATION, PUBLIC EXPENDITURE OF LABOR AND GENDER EQUALITY ON DIGITAL SKILL OF LABOR IN OECD COUNTRIES</i>

**Hall-3, Session-2**  
**29.04.2021, Thursday**  
**Ankara Time: 13<sup>00</sup>–15<sup>30</sup>**

**MODERATOR: Assoc. Prof. Dr. Grozi DELCHEV**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Assoc. Prof. Dr. Grozi DELCHEV	Trakia University, Stara Zagora, Bulgaria,	<i>INFLUENCE OF SOME HERBICIDES AND HERBICIDE TANK MIXTURES ON GRAIN YIELD AND GRAIN QUALITY OF DURUM WHEAT (Triticum Durum Desf.)</i>
OJO Oluwadamilola Mary	Ladoke Akintola University of Technology, Ogbomosh, Oyo State. Nigeria	<i>TRAINING NEEDS OF CASSAVA PROCESSORS IN IWO LOCAL GOVERNMENT AREA OF OSUN STATE. NIGERIA</i>
Dr. Fahima NABI Dr. Meriem CHEBAANI Prof. Sidi Mohamed OUNANE	Université Dr Yahia Farès de Médéa, faculté des sciences, Département Sciences de la nature et de la vie Médéa, Algérie.	<i>INFLUENCE OF DIFFERENT SEED PRIMING METHODS FOR IMPROVING SALT STRESS TOLERANCE IN COWPEA.</i>
Esther Abosede Ewetola	Ladoke Akintola University of Technology, Ogbomos, Oyo state, Nigeria	<i>GREEN MANURE FROM SPEAR GRASS INFLUENCED SELECTED SOIL PHYSICAL PROPERTIES AND MAIZE PERFORMANCE IN SOUTHERN GUINEA SAVANNA OF NIGERIA</i>
Adelakun Kehinde Moruff Oyediran Olorunfemi Boye Ihidero Ambrose Aigbodion Akinade, Toyese George Sulyman Abdul-Wahhab	Federal College of Wildlife Management of Forestry Research Institute of Nigeria	<i>EVALUATION OF CHEMICAL QUALITIES OF SMOKED ELEPHANT SNOUTFISH (Mormyrus rume) FROM NEW BUSSA, NIGER STATE, NIGERIA</i>
Fereshte Eslami Dr. Nima pouring Dr. Hassan Nasrollahzadeh Saravi	Iranian Fisheries Science Research Institute Iran	<i>IMPACT OF MNEMIOPSIS LEIDYI ON THE SOUTHERN CASPIAN SEA ZOOPLANKTON STRUCTURE VIA QUANTITATIVE ASSESSMENT DURING 1996-2010.</i>
Maryam Rezaei Hasan Nasrollahzadeh Saravi Mohammad Afraei, Sharareh Firuzkandian	Caspian Sea Ecology Research Center Iran	<i>INVESTIGATION OF HEAVY METALS IN CAGE CULTURE IN THE SOUTHERN PART OF THE CASPIAN SEA</i>
Z. Yaghoubzadeh R. Safari	Caspian Sea Ecology Research Center Iran	<i>THE INHIBITORY EFFECT OF RAINBOW TROUT (ONCORHYNCHUS MYKISS) SKIN HYDROLYSATE ON EXOTOXIN A GENE EXPRESSION IN PSEUDOMONAS AERUGINOSA</i>
Nadezhda Viktorovna VOROBYEVA Ilya Nikolaevich MEDVEDEV	South-West state University Russia	<i>THE ACTIVITY OF PLATELETS IN NEWBORN CALVES OF THE YAROSLAVL BREED</i>

**Hall-1, Session-3**  
**29.04.2021, Thursday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Associate. Prof. Mirna FAWAZ**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Associate. Prof. Mirna FAWAZ	Beirut Arab University, Lebanon	<i>E-LEARNING: DEPRESSION, ANXIETY, AND STRESS SYMPTOMATOLOGY AMONG LEBANESE UNIVERSITY STUDENTS DURING COVID-19 QUARANTINE</i>
MD Daniela Bursacovschi MD Jana Cazacu Assoc. Prof. Dorin Lisii Prof. Eleonora Vataman	Institute of Cardiology Moldova	<i>DETERMINANTS OF PATIENT READMISSIONS IN THE FIRST TWO YEARS AFTER CORONARY REVASCULARIZATION THERAPY</i>
Zakiyya M. Mustafayeva Prof. Zemfira M. Guliyeva	Azerbaijan State Advanced Training Institute for Doctors named after A. Aliyev, Baku, Azerbaijan	<i>ANALYSIS OF THE CHILD MORBIDITY ON THE DATA OF OBLIGATORY ANNUAL MEDICAL CHECK-UP EXAMINATION</i>
Assos. Prof. Dr. Hayat Aliyeva Dr. Gultakin Bayramova	Azerbaijan Medical University, , Baku, Azerbaijan	<i>SIDE EFFECTS OF HELICOBACTER PYLORI THERAPY AND THE ROLE OF ANTIBIOTIC SUSCEPTIBILITY TESTING IN TREATMENT</i>
Valentina Buivalo	Sumy State University Ukraina	<i>EVALUATION OF THE EFFICIENCY OF THE REHABILITATION PROGRAM FOR THE RECOVERY OF THE UPPER LIMB FUNCTION USING FUNCTIONAL TESTS</i>
Chief Asst. Prof. Teodora STANKOVA Chief Asst. Prof. Katya STEFANOVA Chief Asst. Prof. Ginka DELCHEVA Chief Asst. Prof. Krasimir BOYANOV Chief Asst. Prof. Radiana STAYNOVA Asst. Prof. Dr. Emanuela VASILEVA Assoc. Prof. Dr. Anelia BIVOLARSKA	Medical University of Plovdiv, Plovdiv, Bulgaria	<i>SERUM LEVELS OF CARBAMYLATED LDL IN MIDDLE-AGED MEN WITH NASCENT METABOLIC SYNDROME</i>
Georgi VALCHEV Tsvetomila VALCHEVA Chief Asst. Prof. Teodora STANKOVA Assoc. Prof. Borislav BORISSOV	Medical University of Sofia, Plovdiv, Bulgaria,	<i>EXPLORING THE POTENTIAL OF MOBILE APPLICATIONS IN CLINICAL TRIALS IN BULGARIA</i>
Dr. Esmira Mammadova Tarverdi	Azerbaijan Medical University Azerbaijan	<i>CHANGES IN THE CONTENT OF CYTOKINES IN GENERALIZED PERITONITIS</i>
Svetlana Yurevna ZAVALISHINA	Russian State Social University, Moscow, Russia	<i>THE DYNAMICS OF THE FUNCTIONALITY OF THE CARDIOVASCULAR SYSTEM IN THE CONDITIONS OF RECREATIONAL IMPACT</i>
Ștrghi Grigore Alexandru Kusturov Vladimir Ivan Caproș Nicolae Fiodor Ungurean Victor Stanislav	University of Medicine and Pharmacology "Nicolae Testemitanu Moldova.	<i>INCIDENCE OF PELVIC FRACTURES IN THE ADULT POPULATION WHO RECEIVED MEDICAL ASSISTANCE AT THE INSTITUTE OF EMERGENCY MEDICINE, CHIȘINĂU, REPUBLIC OF MOLDOVA IN 2019</i>

**Hall-2, Session-3**  
**29.04.2021, Thursday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Assoc. Prof. Dede Egor**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Dede Egor</i>	<i>Snejana Vetrila, MD, PhD</i>	<i>CARDIAC SURGERY RISK FOR AORTIC VALVE REPLACEMENT IN PATIENTS WITH AORTIC STENOSIS WITH ATHEROSCLEROTIC LESIONS IN CORONARY ARTERIES</i>
<i>Valeria Ungurean</i>	<i>State University Of Medicine and Pharmacy "Nicolae Testemitanu" of the Republic of Moldova</i>	<i>Etiological features OF VALVULAR HEART DISEASES</i>
<i>Gasimova K.F.</i>	<i>Azerbaijan Medical University, Baku</i>	<i>STUDY OF THE DYNAMICS OF ANTIMICROBIAL PEPTIDES AFTER TREATMENT IN PATIENTS WITH CHOLELITHIASIS.</i>
<i>Allakhverdiyeva L.I. Gulieva N.M Mustafaev İ.A Faramazov A.Z</i>	<i>Azerbaijan Medical University, Azerbaijan</i>	<i>ASSESSMENT OF THE IMMUNE SYSTEM IN HYPER-IGD SYNDROME</i>
<i>Mustafayev İ.A Allahverdiyeva L.I. Guliyeva N.M Faramazov A.Z.</i>	<i>Azerbaijan State Medical University Azerbaijan</i>	<i>THE ROLE OF THE PECULIARITIES OF THE PRENATAL PERIOD IN THE DEVELOPMENT OF SMALL BRONCHIAL DISEASES IN CHILDREN</i>
<i>Iuliana Smolenschi Dr. Alina Mereuța Prof. Dr. Natalia Caproș</i>	<i>Nicolae Testemitanu State University of Medicine and Pharmacy Moldova.</i>	<i>THE RELATIONSHIP BETWEEN NT PRO BNP AND ANEMIA IN PATIENTS WITH CHRONIC KIDNEY DISEASE</i>
<i>Jafarova Khatira Hashim Tagiyeva Flora Shura</i>	<i>Azerbaijan Medical University Azerbaijan</i>	<i>GLOBAL CLIMATE CHANGE AND ITS IMPACT ON HUMAN HEALTH</i>
<i>Elena CONDRATIUC</i>	<i>IMSP Institute of Emergency Medicine Moldova.</i>	<i>PTSD SYMPTOMS AMONG HEALTHCARE WORKERS FACING COVID-19</i>
<i>Univ. Prof. Victor LACUSTA Univ. Prof. Valeriu FALA Univ. Asst. Gheorghe BORDENIUC Mihaela IVANOV</i>	<i>State University of Medicine and Pharmacy Moldova</i>	<i>INTERDISCIPLINARY APPROACH TO THE PAIN SYNDROME IN MASTICATORY MUSCLE DYSFUNCTION</i>
<i>Russu Eugeniu Cecan Ion</i>	<i>State University of Medicine and Pharmacy "Nicolae Testemitanu", Moldova.</i>	<i>EARLY MANIFESTATIONS OF AXIAL ARTHROPATHY IN INFLAMMATORY BOWEL DISEASE</i>

**Hall-3, Session-3**  
**29.04.2021, Thursday**  
**Ankara Time: 16<sup>00</sup> – 18<sup>30</sup>**

**MODERATOR: Prof. Dr. Mehran Yazdi**

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
<i>Anton Sotirov</i>	<i>Association Club "Vanguard", Kyustendil, Bulgaria</i>	<i>INCREASING OF QUANTITY OF DISINFECTANTS AT THE ENVIRONMENT</i>
<i>Garcias, N.C. Bergmann, C.P</i>	<i>Federal University Rio Grande do Sul, Brazil</i>	<i>HOW THE RATIONAL TEMPERATURE IN THE WET ROUTE INFLUENCES THE CRYSTALLITE SIZE AND LATTICE PARAMETERS OF THE MONETITE, USING CHICKEN EGG SHELL AS A CALCIUM SOURCE</i>
<i>Asst. Prof. Dr Borislav ABRASHEV, MSc Marin PANDEV, Asst. Prof. D-r Daniela LEVI, MSc Valentin TERZIEV</i>	<i>Evgeni Budevski Institute of Electrochemistry and Energy Systems, Bulgarian Academy of Sciences, Bulgaria</i>	<i>DECARBONISATION VIA HYDROGEN ENERGY</i>
<i>Dr.M.Rajalakshmi Balaji B Indumalini B Nidarshna S Oviya D</i>		<i>IOT ENABLED FOOD CALORIE ESTIMATION USING DEEP LEARNING</i>
<i>Karim Dogheche Bandar Alshehri Abderrahim Ramdane El Hadj Dogheche</i>	<i>Université Polytechnique Hauts France IEMN DOAE CNRS UMR Valenciennes, France</i>	<i>CLEAN ROOM FABRICATION OF <math>\mu</math>LEDS DEDICATED TO LIGHT FIDELITY TRANSMISSION LINK</i>
<i>Prof. Dr. Mehran Yazdi</i>	<i>Shiraz University, Shiraz, Iran</i>	<i>PRECISE IMAGE ROTATION ESTIMATION USING THE MODIFIED MUTLI-RESOLUTION WAVELET TRANSFORM</i>
<i>Associate Prof. Ashwani Kumar Associate Prof. D. Shanthi</i>	<i>Sreyas Institute of Engineering and Technology Hyderabad, Telangana India</i>	<i>PREDICTION OF LOAN SCORING STRATEGIES USING DEEP LEARNING ALGORITHM FOR BANKING SYSTEM</i>
<i>Dr. Rahul Desai</i>	<i>Army Institute of Technology, Dept. of IT India</i>	<i>SECURE ONLINE PAYMENT SYSTEM</i>
<i>Dr. Rahul Desai</i>	<i>Army Institute of Technology, Dept. of IT India</i>	<i>KEYSTROKE DYNAMICS AND VARIOUS AUTHENTICATION APPROACHES</i>
<i>Sokaina EL KHAMLI Ikram BEN ABDEL OUAHAB Mohammed BOUHORMA Fatiha ELOUAAI Amal MAURADY Abdelfettah SEDQUI</i>	<i>Abdelmalek Essaâdi University, Tangier, Morocco</i>	<i>A SMART APPLICATION BASED ON MACHINE LEARNING FOR CERVICAL CANCER DIAGNOSIS USING CLINICAL FEATURES</i>

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**THE RELATIONSHIP BETWEEN GLOBALIZATION AND INSURANCE ACTIVITY IN  
THE REPUBLIC OF GEORGIA**

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**ABSTRACT**

This article discusses the relationship between globalization and insurance activity in Georgia in 2014-2018 after the signing of the association agreement between Georgia and European union. Based on the regression analysis the relationship between them are studied and the statistical significance of the correlation is established.

**Keywords:** *Globalization, Insurance activity, Insurance density, economic globalization.*

**TÜRK-RUS İLİŞKİLERİ VE MOSKOVA ANLAŞMASININ NAHÇIVAN İÇİN  
ROLÜ**  
TURKISH-RUSSIAN RELATIONS AND THE ROLE OF THE MOSCOW AGREEMENT  
FOR NAKHCHIVAN

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**ABSTRACT**

Armenian families started to move to Nakhchivan region, which is a historical part of Azerbaijan after the Tsarist occupation. After Armenians were settled in 61 villages of Nakhchivan province and 11 villages of Ordubad district, they started to initiate territorial claims against Nakhchivan with the help of Tsarist Russia. In order to realize these intentions, they did not hesitate to pursue a mass terror policy against the innocent, disabled population. After the collapse of the Azerbaijan Democratic Republic and the establishment of the Soviet power in Azerbaijan, the aggressive policy of the Armenian Dashnaks against Nakhichevan supported by the USA and Britain intensified. Despite the Bolsheviks who came to power in Azerbaijan, the Bolshevik leaders ignored the Dashnak's policy of terrorism and aggression in order to accelerate the Sovietization of Armenia and even promised them concessions from the Azerbaijani lands. Under the pressure of the Bolshevik leaders, the decision of the Azerbaijani administration to leave the Nakhichevan region to Armenia in 1920 was met with great disappointment among the Nakhichevan people and the Nakhchivan issue took an important place in many bilateral and international negotiations.

Considering that during national liberation movement in Turkey, the leaders of the National Liberation Movement need the help of the Soviets in the future and that Nakhchivan is seen as a gateway to the Turkish world, the issue of Nakhchivan is one of the important matter of debate of Russian-Turkish talks.

Hence, Yusif Kamal Bey, a member of the delegation sent to Russia, met with Mustafa Kemal Pasha the day before leaving Ankara (13 December) and asked: "Pasha, what should we do if the Russians insist on Nakhchivan?" He answered: "Nakhchivan is a Turkish gate, so do your best."

During the Moscow talks, the issue of Nakhchivan was reflected in the minutes of the meetings of the political commission that carried out diplomatic conflicts and debates on 10, 12 and 14 March 1921. March 16, 1921 in Moscow with the participation of representatives of the RSFSR and Turkey the discussions ended. Talks between the RSFSR and Turkey have resulted in the signing of the treaty of friendship and brotherhood. The agreement was signed by the RSFSR Foreign Minister, Chairman of the Dagestan Revolution Committee, RSFSR Central Executive Committee member J.Korkmasov and the Turkish side Yusif Kamal, Ali Fuad, Rıza Nuri. The Nakhchivan issue was also resolved in the agreement. The third article of the agreement stated: "The parties to the negotiation agree that the Nakhchivan region has created an autonomous region under the auspices of Azerbaijan, within the limits specified in Annex 1 (s) of this agreement, provided that Azerbaijan cannot give this protection to a third state.

At the same time, the signatories of the agreement confirmed that Nakhchivan is a historical region of Azerbaijan. The Moscow agreement would be ratified in a larger format at the Kars conference.

**Key words:** *Nakhchivan, Bolshevik, Dashnak, Terror, Sovet*

**THE ECONOMIC EFFECTS OF COVID-19 PANDEMIC ON RURAL WOMEN IN ETHIOPIA**

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**ABSTRACT**

The COVID-19 pandemic spreads exponentially and affects global health, social, political, and economic systems putting women at the center. The pandemic severely impacts the livelihoods of vulnerable groups in the rural sector. Women are over-represented in affected sectors at the front line of dealing with the pandemic in Ethiopia. As the pandemic is a recent phenomenon, there are limited empirical studies on its effect in the economic activities of rural women. Therefore, this study investigates the economic impacts of COVID-19 on rural women in South Wollo Zone and Oromia Special Zone of Ethiopia. Thereby multistage sampling procedure was employed to draw 150 rural women randomly as study participants. Data were collected from primary and secondary sources using interview schedules, key informants, and case studies. Descriptive and inferential statistics and qualitative approaches were employed to analyze the data. The study shows major income sources of rural women are crop production, livestock rearing, small business, daily work, remittance, livestock trading, handicrafts, migration, renting assets, and firewood selling. About 82% of women's economic activities are affected by the pandemic with a significant effect difference between male-headed and female-headed households at 5% level. Livestock rearing, small business, remittance, migration, daily work, and firewood selling are significantly affected by the COVID-19 pandemic. There is a significant relationship between the effect of pandemic and women's participation in economic activities such as livestock rearing, small business trade, remittance income, labor migration, daily work, and sale of firewood. About 48%, 45.3%, and 28.7% of rural women are totally left out of small business, daily labor, and remittance income respectively due to the pandemic. These resulted in rural women in an economic crisis. In conclusion, the pandemic significantly affected on-farm, off-farm, non-farm, and marketing aspects of rural women's economic activities. Thus, building the capacity of rural women to involve in secured income-generating activities through providing revolving funds with training, and creating market linkages can be essential implications to sustain women's economic activities in the study area.

**Keywords:** *COVID-19 pandemic, Economic Impact, Ethiopia, Rural Women Case Presentation.*

**DETERMINANTS OF ECONOMIC GROWTH IN TRANSITION ECONOMY COUNTRIES  
GEÇİŞ EKONOMİSİ ÜLKELERİNDE EKONOMİK BÜYÜMENİN DETERMİNANTLARI****Emrullah METE***Giresun University, Görele School of Applied Science, Logistics Management, Giresun, TURKEY**ORCID: ID/0000-0003-2240-9248***ABSTRACT**

Economic growth has been one of the most important topics of all theories from the classical theory, which is accepted as the beginning of economic theory, to the present day. The determinants used to achieve economic growth enable both the differentiation of growth theories and the determination of development levels between the countries. While in classical theory, the increase in capital accumulation realized by labor and capital factors constitutes economic growth, in the neoclassical growth theory, technology has joined the growth model as an external factor for the first time. In endogenous growth theories, technology is accepted as an intrinsic factor. In addition, factors such as human capital, R&D expenditures, learning by doing and qualified labor have become important determinants of economic growth. In today's world where international competition is quite advanced with the effect of globalization, economic growth occurs not only with the effect of one factor but also with the interaction of all factors. R&D investments are required to ensure technological development. Human capital is needed to carry out R&D activities. Qualified workforce is needed to use the new product or production method and realize mass production resulting from R&D activities. This wheel, which operates systematically in industrialized countries, provides economic growth. Developing countries, on the other hand, realize their economic growth by providing technology transfer with the free trade brought about by the phenomenon of globalization. Transition economies is a concept that refers to the countries that have transitioned from a state-controlled and centrally planned economy to a free market economy with the collapse of the eastern block. The factors that countries have determine their level of development. The aim of this study is to reveal which factors are determinants of economic growth in the period 2000-2018 in 10 countries which are members of the European Union and are called transition economies. For this purpose, the effects of the factors that countries have on economic growth were analyzed with panel regression analysis. According to the analysis results using robust standard error estimators, total factor productivity, human capital, R&D expenditures and medium-high technology product exports have a positive and significant effect on economic growth.

**Keywords:** *Economic Growth, Human Capital, R&D Expenditure, Total Factor Production.*

**ÖZET**

Ekonomik büyüme, iktisat teorisinin başlangıcı kabul edilen klasik teoriden günümüze kadar tüm teorilerin en önemli konularından biri olmuştur. Ekonomik büyümeyi gerçekleştirmek amacıyla kullanılan determinantlar hem büyüme teorilerinin farklılaşmasını hem de ülkeler arasındaki gelişmişlik düzeyinin belirlenmesini sağlamaktadır. Klasik teoride emek ve sermaye faktörleriyle gerçekleştirilen sermaye birikimi artışı ekonomik büyümeyi oluşturmaktayken Neoklasik büyüme teorisinde teknoloji dışsal faktör olarak büyüme modeline ilk defa katılmıştır. İçsel büyüme teorilerinde ise teknoloji içsel faktör olarak kabul edilmiştir. Ayrıca beşeri sermaye, ar-ge harcamaları, yaparak öğrenme ve nitelikli işgücü gibi faktörler ekonomik büyümenin önemli determinantları haline gelmiştir. Küreselleşmenin de etkisiyle uluslararası rekabetin oldukça şiddetli olduğu günümüzde ekonomik büyüme yalnızca bir faktörün etkisiyle değil tüm faktörlerin etkileşimiyle meydana gelmektedir. Teknolojik gelişimin sağlanabilmesi için ar-ge yatırımları gerekmektedir. Ar-ge faaliyetlerini gerçekleştirmek için ise beşeri sermayeye ihtiyaç duyulmaktadır. Ar-ge faaliyetleri sonucunda ortaya çıkan yeni ürünün veya üretim yönteminin kullanılması ve seri üretimin gerçekleştirilmesi için nitelikli işgücüne ihtiyaç duyulmaktadır. Sanayileşmiş ülkelerde sistematik olarak işleyen bu çark ekonomik büyümeyi sağlamaktadır. Gelişmekte olan ülkeler ise küreselleşme olgusunun getirdiği serbest ticaret anlayışıyla birlikte teknoloji transferini sağlayarak ekonomik büyümelerini gerçekleştirmektedir. Geçiş ekonomileri, doğu blokunun yıkılmasıyla devlet



kontrolünde olan ve merkezi planlama şeklinde yürütülen bir ekonomiden serbest piyasa ekonomisine geçen ülkeleri ifade eden bir kavramdır. Ülkelerin sahip oldukları faktörler onların gelişme düzeylerini belirlemektedir. Bu çalışmanın amacı Avrupa Birliği üyesi olan ve geçiş ekonomileri olarak adlandırılan 10 ülkede 2000-2018 döneminde ekonomik büyüme konusunda hangi faktörlerin belirleyici olduğunu ortaya koymaktır. Bu amaç doğrultusunda ülkelerin sahip oldukları faktörlerin ekonomik büyüme üzerindeki etkisi panel regresyon analizi ile incelenmiştir. Dirençli standart hata tahmincilerinin kullanıldığı analiz sonuçlarına göre, toplam faktör verimliliği, beşeri sermaye, ar-ge harcamaları ve orta- yüksek teknoloji ürün ihracatı ekonomik büyüme üzerinde pozitif ve anlamlı etkiye sahiptir.

**Anahtar Kelimeler:** *Ekonomik Büyüme, Beşeri Sermaye, Ar-Ge Harcamaları, Toplam Faktör Verimliliği.*

**KAFKASYA’DA BİZANS-SASANI SAVAŞLARI VE LAZLAR (V.-VI. YÜZYIL)  
BYZANTINE-SASANIAN WARS AND LAZ IN CAUCASIA (V.-VI. CENTURY)****Ali GENÇ***Celal Bayar University, Faculty of Arts and Sciences, History Department, Manisa, Turkey.  
ORCID UD: 0000-0002-1784-3771***ABSTRACT**

Throughout history, the great states that have made claims in a regional or global context have focused on certain regions and struggled with each other to dominate these regions. The Caucasus, one of these strategic regions, has been a battleground for great powers that want to have global influence since the earliest times of history. The Caucasus, which is important for the global powers both militarily and commercially, has become a region of endless versatile movements. The Romans which is one of the global powers and have dominated Anatolia since the II. century BC., started to spread towards the Black Sea and the Caucasus in the following period. However, the Romans faced another regional power of the period, the Iran-based Parths, in order to dominate the region, and a long-term struggle began between these states. Since the V. century AD, the actors of the rivalry have changed and the Romans were replaced by the Byzantine (Eastern Roman) Empire, The Sassanids took the place of the Parths, which were destroyed in 224 AD. The Byzantines and Sassanids, who were in conflict in Armenia and Mesopotamia and also struggled to have a voice in East-West trade, developed various political and commercial policies in order to dominate the Caucasus. In addition, both states had put in circuit missionary activities to control the region more actively and thus tried to spread Christianity and Zoroastrianism among the Caucasian peoples. The rivalry between the Byzantine Empire and the Sassanids had different effects on the peoples living in the Caucasus. One of these peoples is the Laz who live on the southeast coast of the Black Sea. The long-term and violent conflicts between the Byzantine Empire and the Sassanids left significant marks on the political history, trade and religious structures of the Laz people. This declaration aims to discuss the situation of Laz in the rivalry between the two great powers and the impact of global competition on Laz from different aspects.

**Keywords:** *Caucasia, Laz, Byzantine, Sassanid.*

**ÖZET**

Tarih boyunca bölgesel ya da küresel bağlamda iddaa sahibi olan büyük devletler, belli bölgelere odaklanmış ve bu bölgelere hakim olmak için birbirleriyle mücadele etmişlerdir. Bu stratejik bölgelerden biri olan Kafkasya, tarihin en eski devirlerinden itibaren küresel anlamda nüfuz sahibi olmak isteyen büyük güçlerin mücadele alanı olmuştur. Küresel güçler için hem askeri hem de ticari açıdan önem taşıyan Kafkasya, bitip tükenmek bilmeyen çok yönlü mücadelelerin yaşandığı stratejik bir bölge haline almıştır. Bu küresel güçlerden biri olan ve M.Ö. II. yüzyıldan itibaren Anadolu’ya hakim olan Romalılar, ilerleyen dönemde Karadeniz ve Kafkasya’ya doğru yayılmaya başlamıştır. Ancak Romalılar bölgede hakim olmak için dönemin bir diğer bölgesel gücü olan İran merkezli Parthlar ile rekabete girmiş ve bu devletler arasında uzun soluklu bir mücadele başlamıştır. M.S. V. yüzyıldan itibaren rekabetin aktörleri değişmiş ve Romalıların yerini Bizans (Doğu Roma) İmparatorluğu, M.S. 224 yılında yıkılan Parthların yerini de Sasaniler almıştır. Armenia ve Mezopotamya’da çatışma halinde olan ve ayrıca Doğu-Batı ticaretinde söz sahibi olmak için mücadele eden Bizanslılar ile Sasaniler, Kafkasya’da hakim olmak adına çeşitli siyasi ve ticari politikalar geliştirmişlerdir. Ayrıca her iki devlet de bölgeyi daha aktif bir şekilde kontrol etmek amacıyla misyonerlik faaliyetlerini devreye sokmuş ve böylece Hristiyanlık ve Zerdüştlüğün Kafkas halkları arasında yayılmasına çalışmışlardır. Bizans İmparatorluğu ile Sasaniler arasındaki rekabetin Kafkasya’da yaşayan halklar üzerinde de farklı etkileri olmuştur. Bu halklardan biri de Karadeniz’in güneydoğu kıyısında yaşayan Lazlardır. Bizans İmparatorluğu ile Sasaniler arasındaki uzun soluklu ve şiddetli çatışmalar, Lazların siyasi tarihi ile ticari ve dini yapıları üzerinde belirgin izler

bırakmıştır. Bu bildiri iki büyük güç arasında rekabette Lazların durumunu ve küresel rekabetin Lazlar üzerindeki etkisini farklı yönleriyle ele almayı hedeflemektedir.

**Anahtar Sözcükler:** *Kafkasya, Laz, Bizans, Sasani.*

## OUR LIBERATED MONUMENTS AWAIT US

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### ABSTRACT

The material and cultural monuments of Azerbaijan condemned to destruction in the territories occupied by Armenia are our invaluable national treasure as a stone memory of our history. The destruction of the historical monuments of Karabakh is as painful as the erasure of the petrified memory of our cultural and spiritual history. Over the years, we have had many lands where the Dashnaks and their supporters have gritted their teeth and tried to snatch them from Azerbaijan with their insidious and ugly policies. Archaeological excavations have revealed that people settled in these places about 8-10 thousand years ago.

One of the rare monuments destroyed by the enemy is Uzerliktepe, the only monument of archeological research in the Mil plain, which dates back to the end of the second millennium BC and reflects the first urban culture.

Shahbulag fortress or Tarnakut fortress was built as the administrative center of Karabakh khanate before Bayat fortress. Although the fortress was used as a residence for some time, it was later used as a guard post.

Located in Yukhari Askipara village of Gazakh region, the Tower is an architectural monument of local significance. It is also called Askipara Fortress. The tower is neatly built of river stone. Belt patterns are made of baked red brick. This tower is one of the most beautiful examples of medieval defensive buildings in Azerbaijan.

The territory of Keshikchidagh cave complex is rich in numerous natural and artificial caves, most of the walls of which have frescoes with Christian themes. First of all, it should be noted that the placement of compositions here is strictly incompatible with the interior, and these compositions are not based on an exhaustive plot line, but consist of various religious scenes and images in a retail way, without reckoning with the interior. This fact once again confirms that these caves existed long ago.

**Keywords:** *Karabakh, Uzerliktepe, Shahbulag.*

**LİMAN DEVLETİ DENETİMİ REJİMLERİ KAPSAMINDA TÜRK BAYRAKLI  
GEMİLERİN TUTUKLANMASINA NEDEN OLAN FAKTÖRLERİN ARAŞTIRILMASI  
INVESTIGATION OF FACTORS CAUSING DETENTION OF TURKISH FLAGGED SHIPS  
UNDER PORT STATE CONTROL REGIMES**

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**ABSTRACT**

The safety of life, property and environment at sea is provided by rules determined within the framework of international conventions. The level of implementation of these rules, which are determined in the light of global standards, is controlled by two main supervisory mechanisms, the flag state controls and the port state controls. An effective control mechanism prevents future accidents by eliminating substandard shipping. The deficiencies as a result of the inspections are recorded and eventually, the risk profiles of the ships are created. In this study, the results of the port state inspection in the regions, where Turkish flagged ships mostly sail, were examined. In this context, in consideration of the inspections carried out between 2014 and 2019, a total of 209 inspection reports that resulted in the detention of the ships were analyzed. In this study, the descriptive analysis and chi-square analysis that reveals the relationship levels between the generic factors of the ships and the inspection results were performed using the SPSS 22.0 software. According to the analysis results, among a total of 2591 deficiencies, it was observed that most of these deficiencies are related to "navigation safety", "life saving appliances", and "labour conditions", respectively. Significant relationships were found between these deficiencies and the inspection regime. It is concluded that the most important deficiencies causing detentions are "fire safety", "navigation safety", and "emergency systems". It is also observed that there are significant relationships between these outstanding deficiencies and type of ship. It was determined that there are significant relationships between the variables of age/type and inspection regime/classification society. It is thought that the results of this research will guide specifically the parties involving the flag state inspections, and also contribute to ship operators to take the necessary measures to prevent reoccurrence of past deficiencies.

**Keywords:** *Ship Inspection, Port State Control, Detention.*

**ÖZET**

Denizde can, mal ve çevre emniyeti, uluslararası sözleşmeler çerçevesinde belirlenen kurallar ile sağlanmaktadır. Gemilerin küresel standartlar ışığında belirlenen bu kuralları ne düzeyde uyguladıkları, bayrak devleti ve liman devleti olmak üzere iki ana denetçi mekanizma tarafından kontrol edilmektedir. Etkin bir denetim mekanizması, standart altı gemilerin denizlerde dolaşmasına engel olması sayesinde olası kazaların meydana gelmesini önlemektedir. Denetim sırasında tespit edilen eksiklikler kayıt altına alınmakta ve bir veri havuzunda toplanarak gemilerin risk profilleri oluşturulmaktadır. Bu araştırmada, Türk Bayraklı gemilerin yoğun olarak seyir yaptığı bölgelerdeki liman devleti denetim sonuçları incelenmiştir. Bu bağlamda, 2014 ve 2019 yılları arasında gerçekleştirilen denetimler ışığında gemilerin tutulması ile sonuçlanan toplam 209 denetim raporu analiz edilmiştir. Çalışmamızda, SPSS 22.0 paket programı kullanılarak denetimdeki eksikliklerin frekans dağılımı yapılmış, denetimi yapılan gemilere ait jenerik faktörler ile denetim sonuçları arasındaki ilişki düzeyleri ki-kare analizleri ile tespit edilmeye çalışılmıştır. Analiz sonuçlarına göre denetimlerde toplam 2591 eksiklik tespit edilmiş olup, bu eksikliklerin büyük bir kısmının “seyir emniyeti”, “can kurtarma araçları” ve “iş koşulları” ile ilgili olduğu görülmüştür. Denetimler sonucu tespit edilen bu eksiklikler ile denetim rejimi arasında anlamlı bir ilişki bulunmuştur. Gemilerin

tutulmasına neden olan en önemli eksiklikler “yangın emniyeti”, “seyir emniyeti” ve “acil durum sistemleri” olduğu tespit edilmiştir. Tutulmaya sebep olan bu eksiklikleri ile gemi tipi arasında anlamlı ilişki bulunmuştur. Tutulan gemilerin yaşı, tipi ile denetim rejimi ve geminin klas kuruluşu arasında anlamlı bir ilişki olduğu tespit edilmiştir. Bu araştırmanın sonuçlarının, özellikle bayrak devleti denetimlerini yürüten unsurlara rehberlik edeceği ve aynı zamanda gemi işleticilerinin de geçmiş eksikliklerin önlenmesi açısından gerekli tedbirleri almalarına katkı sağlayacağı düşünülmektedir.

**Anahtar Kelimeler:** *Gemi Denetimi, Liman Devleti Denetimi, Tutulma.*

**SOĞUK SAVAŞ SONRASI DÖNEMDE  
GÜNEY KAFKASYA BÖLGESİNDE ÇATIŞMA VE İŞBİRLİĞİ EKSENİNDE İTTİFAK  
YAPILANMALARI**

POST-COLD WAR PERIOD

ALLIANCE STRUCTURES ON THE AXIS OF CONFLICT AND COOPERATION IN THE  
SOUTH CAUCASUS REGION

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**ÖZET**

20. yüzyılın sonlarında SSCB'nin dağılması ile başlayan sürecin sonuçları arasında etnik temele dayalı federatif yönetim biçimlerinin dağılması ve buna bağlı olarak etnik temelli çatışmaların yaygınlaşması da bulunmaktaydı. Son derece heterojen bir etnik ve sosyal yapıya sahip Kafkasya Bölgesi'nde, Sovyetler Birliği'nin dağılması sürecine bağlı olarak gelişen bağımsızlık hareketleri etnik çatışmalara yeni bir ivme kazandırmıştı. Temel bölgesel çatışma alanları ve unsurları olarak Karabağ, Abhazya ve Osetya sorunları görülmektedir.

Üç Güney Kafkasya ülkesinin farklı algılamalarla farklı güvenlik ilişkilerini devreye sokmaları bölgede istikrarı tehlikeye sokan bir yapı ve özellik göstermektedir. Ermenistan'ın Türkiye ve Azerbaycan'dan tehdit algılaması ile Rusya'ya, Azerbaycan'ın İran ve Rusya'dan tehdit algılaması ile Batı ve Türkiye'ye, Rusya'dan yönelen tehdit algılaması ile Gürcistan'ın ABD'ye yakınlaşmaları bölge politikalarında kutuplaşmaya doğru giden bir eğilim yaratmıştır. Bölgede kuzey-güney ekseninde Rusya, Ermenistan ve İran arasında oluşan ittifaka karşı doğu-batı ekseninde Azerbaycan, Gürcistan ve Türkiye'nin katılımı ve bölge dışı bir güç olarak ABD'nin desteğiyle başka bir ittifak kurulduğu görülmektedir.

1991 öncesinde kendilerini dünya piyasalarına bağlayacak bağımsız bağlantılara sahip olmayan Avrasya coğrafyasındaki eski SSCB ülkeleri, dağılma ile birlikte enerji kaynaklarının nakli konusu basta olmak üzere doğrudan dışarı ile bağlantısı olmayan ülkeler haline gelmişlerdi. Hazar bölgesinde enerji kaynağına sahip olan üretici devletlerin, söz konusu petrol ve doğal gazı Rusya'nın etkinlik sahasındaki hatlardan nakline karşı bir düşünceye sahip olmaları üretici devletleri ve onlarla enerji alanında işbirliği arayışı içinde olan aktörleri farklı seçeneklere yönelik arayışlara götürdü. Bu bağlamda, Hazar bölgesinde enerji alanında işbirliği yapan üretici devletler ve aktörler, enerji nakli konusunda geçiş işlevi görebilecek devletlerle ilişkileri ön plana çıkarmaya başladılar. Buradan hareketle, Rusya dışında geçiş noktası oluşturmaya uygun özellikleri ile Türkiye ve Gürcistan önem kazanmaya başladılar.

Azerbaycan ve Ermenistan arasındaki son Karabağ çatışması Güney Kafkasya bölgesindeki güç dinamiklerini yeniden düzenlemiştir. Moskova'nın Güney Kafkasya'da hakim güç olmaya devam ettiğini ancak bölgedeki Rus hakimiyetine meydan okunabileceğini de göstermiştir. Bundan sonra ne olacağı ve anlaşmazlığın sürdürülebilir bir çözümle sonuçlanıp sonuçlanmayacağı belirsizliğini korumaktadır. Dağlık Karabağ'ın statüsünün belirsiz kalması anlaşmazlığın çözülmediği yalnızca ertelendiği anlamına gelmektedir.

**Anahtar Kelimeler:** *Güney Kafkasya, çatışma, iş birliği, ittifak, Karabağ.*

**ABSTRACT**

Among the consequences of the process that began with the dissolution of the USSR at the end of the 20th century was the dissolution of Federative forms of government based on ethnic basis and, accordingly, the spread of ethnic-based conflicts. In the Caucasus region, which has a highly heterogeneous ethnic and social structure, independence movements that developed due to the process of dissolution of the Soviet Union gave a new impetus to ethnic conflicts. As the main areas and elements of regional conflict, the problems of Karabakh, Abkhazia and Ossetia are observed.

The fact that the three South Caucasus countries have engaged in different security relations with different perceptions has created a trend towards polarization. Another alliance has been established in the region with the participation of Azerbaijan, Georgia and Turkey on the east-west axis against the alliance formed between Russia, Armenia and Iran on the north-south axis, and with the support of the United States as a non-regional power.

With the dissolution, the former USSR countries became countries that were not directly connected to the outside, including the issue of the transfer of energy resources. This led the producer states that have energy resources in the Caspian region and actors who are seeking cooperation with them in the field of energy to look for different options. Based on this, Turkey and Georgia began to gain importance with their characteristics suitable for creating a crossing point outside Russia.

The recent Nagorno-Karabakh conflict between Azerbaijan and Armenia has reorganized the power dynamics in the South Caucasus region. It has also shown that Moscow remains the dominant power in the South Caucasus, but that Russian dominance in the region can be challenged. It remains unclear what will happen next and whether the dispute will result in a sustainable settlement. The fact that the status of Nagorno-Karabakh remains unclear means that the dispute is not resolved, but is only delayed.

**Keywords:** *South Caucasus, conflict, cooperation, alliance, Karabakh.*



**ESKİ TÜRKLERDE YÖN-ZAMAN VE YOL GÖSTEREN MİTOLOJİK UNSURLAR**  
MYTHOLOGICAL ELEMENTS THAT SHOW THE DIRECTION-TIME AND WAY IN THE  
OLD TURKS

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**ÖZET**

Eski Türkler yönlerini belirlemek ve takvim sistemlerini oluşturmak için gökyüzünü incelemişlerdir. Gökyüzünün onlar için belirleyici unsur olmasının en önemli nedeni Gök-Tanrı inancıdır. Bu inanışa göre Tanrı gökyüzündeydi ve gökyüzündeki her şey kutsaldı.

Eski Türkler için gökyüzündeki en kutsal unsurlar güneş ve aydır. Bu iki kutsal varlığa çok büyük ilgi duymuşlar, güneş ve ayın hareketlerini günlük hayatlarına yansıtılmışlardır. Türkler, güneş ve ayın gökyüzünde durdukları yere göre yönlerini belirlemişlerdir. Bunun dışında eski Türk anlayışına göre güneşin gökyüzündeki hareketi Türklerin günlük zamanlarını belirlemelerini sağladı. Ayın ise gökyüzündeki değişimi Türklerin aylık ve yıllık zamanlarını yani takvimlerini belirlemektedir.

Türkler, zaman ve takvimlerini belirlerken güneş ve ayı kullanmaktaydılar. Güneşe bakarak günlük, aya bakarak da aylık zaman dilimini belirlemektedirler. Bununla birlikte Eski Türk destan ve efsanelerinde zaman kavramı tam olarak belirtilmemektedir. Genellikle destan ve efsanelerde zaman, tek bir kahraman etrafında dönmekte olan olay örgüsü içerisinde ayırt edilebilmektedir. Altay Türklerinin Yaradılış Destanı, Türk destan ve efsanelerinde zamanın nasıl ilerlediği bakımından önemli örneklerden biridir.

Türklerde yol gösterici unsurlar olarak ise destan ve efsanelerde karşımıza bazı mitolojik motifler çıkmaktadır. Bunlardan bazıları; kurt, ok, yay, ışık, ağaç, at, alageyiktir. Ancak bunlardan kurt ve alageyik genellikle Türklerin başına gelen felaketlerden sonra Türk soyunun yok olmaması için nereye gitmeleri hususunda yol gösteren bir tür ilahi varlıklar olarak kabul edilmektedirler. Eski Türk anlayışına göre At ise, öldükten sonra cennete giden yolu gösteren bir mitolojik motiftir.

**Anahtar Kelime:** *Türk mitolojisi, yön, zaman, efsane, destan, ay, güneş.*

**ABSTRACT**

Ancient Turks studied the sky in order to determine their direction and create their calendar system. The most important reason why the sky is the determining factor for them is their belief in the Sky-God. According to this belief, God was in the sky and everything in the sky was sacred.

According to the ancient Turks, the most sacred elements in the sky were the sun and the moon. They were very interested in these two sacred beings and reflected the movements of the sun and the moon into their daily lives. Turks determined the directions of the sun and the moon according to where they stand in the sky. Apart from that, according to the old Turkish understanding, the movement of the sun in the sky enabled the Turks to determine their daily time. The change of the moon in the sky determined the monthly and annual times of the Turks.

Turks used the sun and the moon when determining their time and calendar. By looking at the sun, they determined the daily time frame, and by looking at the moon, they determined time frame for the month. However, the concept of time is not fully specified in the old Turkish epics and legends. Usually in epics and legends, time can be distinguished from the plot that revolves around a single hero. The Creation Epic of the Altai Turks is one of the important examples in Turkish epics and legends in terms of how time progresses.

Some mythological motifs appear in epics and legends as guiding elements in Turks. Some of those; wolf, arrow, bow, light, tree, horse, fallow deer. However, wolves and fallow deer are generally regarded as a kind of divine beings that guide the Turks in order to prevent the extinction of the Turkish ancestry after the catastrophes. According to the ancient Turkish understanding, Horse is a mythological motif that shows the way to heaven after death.

**Keywords:** *Turkish mythology, direction, time, legend, epic, moon, sun.*

**APPLICATION OF FIBROSCAN IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS****Asst. Prof. Vladimir Iacomi****Prof. Ninel Revenco***State University of Medicine and Pharmacy “Nicolae Testemitanu”, Pediatrics Department, 93 Burebista St., MD2062, Chisinau, Republic of Moldova***ABSTRACT****Objectives**

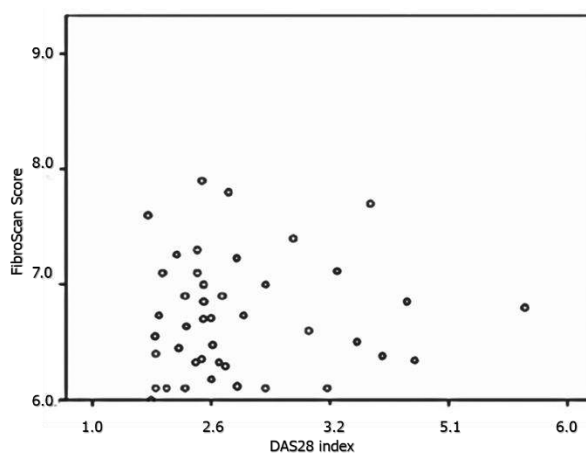
To evaluate the level of liver fibrosis according to the duration of treatment with methotrexate in children with juvenile idiopathic arthritis, and to analyse the relationship of liver stiffness and disease activity.

**Methods**

Children that received treatment with low-dose methotrexate more than six months were examined through transient unidimensional liver elastography called FibroScan, with the M probe. The interpretation of the values of the liver stiffness median was done through the European Federation of Societies for Ultrasound in Medicine and Biology data.

**Results**

There were examined 64 children that administer methotrexate in juvenile idiopathic arthritis and were admitted in the Rheumatology Clinic of the Institute of Mother and Child, Chisinau, Republic of Moldova. There was conducted FibroScan in 43 eligible patients, and there was found a 72,1% rate of liver stiffness median of more than 4,7 kPa both before and after 36 weeks of methotrexate administration ( $p < 0,001$ ). The relationship of the increased liver stiffness and the concomitant decrease in disease activity is seen in the graph below.

**Conclusions**

Peripheral cumulation peak of methotrexate has been established at 37,2 weeks after taking the medication, therefore, the current results correspond to other research data on cumulation and ongoing toxic effect both early and on long-term use. FibroScan makes possible the control of liver toxicity for methotrexate low-dose administration.

**Keywords:** Arthritis, Methotrexate, FibroScan, Toxicity

**EXPERIENCES OF ANATOMY E-LEARNING DURING THE COVID-19 PANDEMIC**

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**ABSTRACT**

**Introduction:** The COVID-19 mediated lockdown has forced the advent of online learning in Nigeria especially among private institutions. This study investigates experiences of anatomy e-learning during the pandemic among Nigerian health profession students.

**Methods:** A cross-sectional study involving a self-designed questionnaire following AMEE guidelines was conducted online from 28<sup>th</sup> July to 10<sup>th</sup> September 2020. The Google form link was disseminated via WhatsApp to students learning anatomy online within the lockdown period. Thirty (30) questions were used to obtain feedback regarding their experiences in anatomy teaching and learning online. Nine (9) private universities participated with a total of three hundred and seven (307) respondents.

**Results:** Demographic data obtained shows that 83.1 % and 16.9 % were females and males with an age range of 16-30 years. Additionally, 188 (61.2 %), 94 (30.6 %), and 25 (8.1 %) were in their 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> year of study respectively. There were variations in student's perceptions of online anatomy learning. Sixty-three (20.5 %) of the respondents strongly agreed that online anatomy classes were as participatory as traditional classroom lectures; although, the majority (n=69; 22.5 %) disagreed. Also, the majority of the respondents (n=106, 34.5 %) believed that the comprehension level through online teaching is lower relative to classroom teaching. The majority (58 %) of respondents preferred learning in the morning hours, while 29 % and 13 % preferred afternoon and evening periods respectively. Continuous assessments were also carried out online within the lockdown with test/quiz (70.9 %) forming the majority of assessment, while 48.2 % of educators used graded assignments, and 28.5 % were in the form of examination.

**Conclusion:** Online learning of anatomy is challenging and characterized by a lack of motivation and distractions. However, learning anatomy online during the morning hours may increase student's participation with improved learning outcomes. Overall, the transition to online learning provided continuity for student learning thereby ensuring coverage of the curriculum despite the pandemic lockdown.

**Keywords:** Anatomy; COVID-19; Learning experiences; Online learning; Pandemic.

**PANDEMİ DÖNEMİNDE HEMŞİRELERDE DUYGUSAL EMEK VE TÜKENMİŞLİK**  
**EMOTIONAL LABOR AND BURNING IN NURSES DURING THE PANDEMIC PERIOD****Zeynep KORKMAZ***Manisa Celal Bayar Üniversitesi, ORCID: 0000-0002-3718-4822***Pınar ARPACI***Manisa Celal Bayar Üniversitesi, ORCID: 0000-0003-3913-1078***Özgül BALCI***Manisa Celal Bayar Üniversitesi, ORCID: 0000-0001-5974-4387***ÖZET**

Hizmet sektörü içinde sağlık hizmetlerinin niteliği ve çalışma şartları gereği ayrı bir önemi bulunmaktadır. Özellikle son dönemlerde tüm dünyayı etkisi altına alan pandemi endişe ve korku yaratmış ve şartlar çok zorlu hale gelmiştir. Sağlık çalışanları zor şartlar altında birçok riskle karşı karşıya kalarak bu hizmeti sunmaktadırlar. Bulaşma riski, belirsizlikler, ölümcül sonuçlar, aileden uzak kalma sağlık çalışanlarını önemli derecede etkilemektedir. Sağlık kuruluşuna başvuran hastalar karşılaştıkları belirsizlikler, hastalık durumu ve bilgi eksikliği gibi nedenlerle tedavi ve bakım sürecinde korku ve endişe içindedirler. Bu süreçte onların endişe ve kaygılarını anlamada, güvende hissetmelerini sağlamada hastalarla daha çok iletişim ve etkileşim halinde olan sağlık çalışanları hemşirelerdir. Hemşirelerden, hastalarına bakım verirken hoşgörülü ve anlayışlı yaklaşması, empati kurması, psikolojik olarak desteklemesi beklenmektedir. Bu anlamda duygusal emek kavramı hemşirelik mesleğinde önemli bir yere sahiptir. Duygusal emekle, hemşire kaygı ve endişe yaşayan hastasına güven vererek daha iyi hissetmesini sağlayacaktır. İnsanlarla sürekli etkileşim halinde bulunan mesleklerde tükenmişlik de önemli bir olgudur. Hemşireler uzun ve yoğun çalışma saatleriyle, stres altında, yetersiz kaynaklarla hizmet sunmaya çalışmaktadırlar. Bu şartlar altında yorgunluk, bitkinlik, işe karşı duyarsızlaşma gibi süreçler yaşayabilmektedirler. Çalışırken kendini tükenmiş hisseder, kendine güveni azalır ve başarısızlık duygusu içine girer. Bu durum hemşirelerin çalışma ortamındaki performanslarını, iş motivasyonlarını önemli şekilde etkiler. Duygusal emekle hastasına güven vermeye çalışan ancak pek çok olumsuz faktörle kendini tükenmiş hisseden hemşirelere bu süreçte kurum yöneticilerinin gereken desteği sağlaması oldukça önemlidir. Bu anlamda kurumda kendilerini değerli hissetmeleri, sağlıklı çalışma ortamlarında uygun şartlarda hizmet sunmaları hemşirelerin motivasyonunu ve performansını etkileyecektir. Pandemi döneminde duygusal emeğin ve tükenmişliğin kurum yöneticileri tarafından önemsenmesi, gerekli önlemlerin alınması ve çalışanlara destek sağlanması oldukça önemlidir. Bu çalışma, pandemi döneminde nedenleri, sonuçları ve çözüm stratejileriyle hemşirelerde duygusal emek ve tükenmişlik süreçlerini değerlendirmek amaçlı derleme olarak hazırlanmıştır.

**Anahtar Kelimeler:** *Pandemi, Hemşire, Duygusal Emek, Tükenmişlik.*

**ABSTRACT**

In the service sector, health services have a special importance due to their nature and working conditions. The pandemic, which has affected the whole world in recent times, has created anxiety and fear and conditions have become very difficult. Healthcare professionals offer this service by facing many risks under difficult conditions. The risk of transmission, uncertainties, fatal consequences, and staying away from the family significantly affect healthcare professionals. Patients who apply to the healthcare institution are in fear and anxiety during the treatment and care process due to reasons such as uncertainty, illness and lack of information. In this process, nurses are healthcare professionals who communicate and interact with patients more in understanding their worries and concerns and making them feel safe. Nurses are expected to have a tolerant and understanding approach, empathize, and support psychologically while providing care to their patients. In this sense, the concept of emotional labor has an important place in the nursing profession. With emotional labor, the nurse will make the patient feel better by reassuring the anxiety and anxiety. Burnout is also an important phenomenon in professions that constantly interact with people.

Nurses try to provide services with long and busy working hours, under stress and with insufficient resources. Under these conditions, they may experience processes such as fatigue, exhaustion, and insensitivity to work. While working, he feels exhausted, his self-confidence decreases, and he feels a sense of failure. This situation significantly affects the performance and motivation of nurses in the working environment. It is very important that the institution administrators provide the necessary support to nurses who try to give confidence to their patients with emotional labor but feel exhausted by many negative factors. In this sense, feeling themselves valuable in the institution and providing services in healthy working environments under appropriate conditions will affect the motivation and performance of nurses. During the pandemic period, it is very important that the managers of the institution pay attention to emotional labor and burnout, take the necessary precautions and provide support to the employees. This study was prepared as a review to evaluate the causes, consequences and solution strategies, and emotional labor and burnout processes in nurses during the pandemic period.

**Keywords:** *Pandemic, Nurse, Emotional Labor, Burnout.*

**LUCILIA SERICATA (DIPTERA: CALLIPHORIDAE)'NİN BİYOLOJİK KAREKTERLERİ  
ÜZERİNDE ÇİNKO'NUN ETKİLERİ**  
THE EFFECTS OF ZINC ON THE BIOLOGICAL CHARACTERISTICS OF LUCILIA SERICATA  
(DIPTERA: CALLIPHORIDAE)

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**ABSTRACT**

Globally, heavy metal pollution is an increasingly critically problem in ecosystems.. Heavy metals constitute an important health, and ecological concern due to their strong toxicity and ability of accumulation in environments and living beings. Among heavy metals, Zinc (Zn) is a widespread metal pollutant released from mining, automobile residue, and industrial combustion. Insects are considered as the best ecological bioindicators of environmental pollution. These heavy metals accumulation in the food chain have harmful effect on insects, but the effects of pollution on necrophagous insects completely unknown. The aim of present study was to investigate the zinc impacts on some developmental parameters of forensically important fly, *Lucilia sericata* Meigen 1826 (Diptera: Calliphoridae). Modelling the effect of different concentrations of zinc ions upon a *Lucilia sericata* has not been sufficiently studied. This experiment was carried out at the Zoology Department, University of Ondokuz Mayıs in 2019. The *L. sericata* adults collected April – August 2017 from a bait trap located on the campus of the Ondokuz Mayıs University, Samsun, Turkey, and supplemented periodically with wild-caught adults. In this study, four concentrations of zinc (Zn) (0.200 µ/g, 0,400 µ/g, 0,800 µ/g ve, 1.6 µ/g ) were used .All experiments were replicated five times for each zinc metal concentration. About 60 larvae, were exposed to the diet with four different concentrations of Zn element. All experiments were done in controlled conditions (27±1°C, 67±10% RH and 12L:12D h). Development rate, pupal and larval mortality, adult, and pupal weight, development time were the recorded parameters. A one way ANOVA was utilised to compare life history parameters. Our results demonstrated that zinc decreased pupal and larval survival, and pupal, and adult weight. Larval development rate was increased in Zn added diet. We concluded that life-history parameters of *L.sericata* are sensitive to zinc and the significance of the zinc effects depends on the dose.

**Keywords:** *Biologic Parameters, Heavy metal, Zinc, L. Sericata.*

**ÖZET**

Küresel olarak, ağır metal kirliliği ekosistemlerde giderek daha kritik bir sorundur. Ağır metaller, güçlü toksisiteleri ve çevrede ve canlılarda birikme kabiliyetleri nedeniyle önemli bir sağlık ve ekolojik endişe oluşturur. Ağır metaller arasında çinko (Zn) madencilikten, otomobil artıkları ve endüstriyel yanmadan salınan yaygın bir metal kirleticidir Böcekler, çevre kirliliğinin en iyi ekolojik biyoindikatörleri olarak kabul edilir. Besin zincirindeki bu ağır metal birikiminin böcekler üzerinde zararlı etkisi vardır fakat, kirliliğin nekrofaj böcekler üzerindeki etkileri tam olarak bilinmemektedir. Bu çalışmanın amacı çinkonun adli açıdan önemli bir sinek olan *Lucilia sericata*'nın Meigen 1826 (Diptera: Calliphoridae) bazı gelişimsel parametreleri üzerindeki etkilerini incelemektir. Bu deney 2019 yılında Ondokuz Mayıs Üniversitesi Zooloji Bölümü'nde gerçekleştirilmiştir. *L. sericata* yetişkinleri Ondokuz Mayıs Üniversitesi, Samsun, Türkiye kampüsünde bulunan yem tuzaklarından Nisan - Ağustos 2017 tarihleri arasında toplanmıştır ve periyodik olarak doğadan yakalanan yetişkinlerle desteklenmiştir. Bu çalışmada dört çinko (Zn) konsantrasyonu (0.200 µ / g, 0,400 µ / g, 0,800 µ / g ve, 1,6 µ / g) kullanılmıştır. Tüm deneyler, çinko konsantrasyonu için beş kez tekrarlanmıştır. Yaklaşık 60 larva, dört farklı konsantrasyonda Zn elementi içeren besi yerlerine

maruz bırakılmıştır. Tüm deneyler kontrollü koşullarda yapılmıştır ( $27 \pm 1$  ° C,  $67 \pm 10\%$  RH ve 12L: 12D h). Gelişme hızı, pupa ve larva ölüm oranı, yetişkin ve pupa ağırlığı, gelişme süreleri kaydedilen parametrelerdir. Yaşam öyküsü parametrelerini karşılaştırmak için tek yönlü bir ANOVA kullanılmıştır. Sonuçlarımız çinko varlığının pupa ve larva sağkalımını, pupa, ve yetişkin ağırlığını azalttığını göstermiştir. Larval gelişim hızı Zn ilavesi olan diyetle artmıştır. *L. sericata*'nın yaşam öyküsü parametrelerinin çinkoya duyarlı olduğu sonucuna ve çinko etkilerinin öneminin doza bağlı olduğu sonucuna varılmıştır

**Anahtar kelimeler:** *Biyolojik Parametreler, Ağır metal, Çinko, Lucilia sericata.*



**THE ROLE OF XYLAZINE IN DEVELOPMENT OF TOLERANCE TO THE  
ANTINOCICEPTIVE EFFECT OF FENTANYL**  
FENTANİLİN ANTİNOSİSEPTİF ETKİSİNE KARŞI TOLERANS GELİŞİMİNDE KSİLAZİNİN  
ROLÜ

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**ABSTRACT**

Fentanyl (FEN) is a powerful opiate analgesic used to treat pain. However, its clinical use is limited because it causes the development of tolerance to its antinociceptive effect as a result of used prolonged and/or high doses. We aimed to investigate the effects of an  $\alpha$ -2 adrenoreceptor agonist xylazine (KSL) on analgesia and tolerance of FEN. Thirty Wistar albino male rats were divided into four groups. Control (saline), FEN (40  $\mu$ g / kg), KSL (1 mg / kg), and FEN + KSL (40  $\mu$ g / kg + 1 mg / kg) groups received intraperitoneal injection throughout three days. Analgesia tests (tail-flick and hot-plate) were performed just before the drug application (baseline) and at 15, 30, 60, 90 and 120 minutes after the injection. Motor coordination was evaluated with the rotarod performance test. All tests were conducted for three days. The 15th and 30th minute latencies of the FEN group on the first day were significantly longer than the baseline measurements. However, there was no prolongation in the 15th and 30th minute latencies of the second and third days. These results demonstrated the development of tolerance to FEN analgesia. KSL did not cause latency change at any time points. Compared to same days baseline measurements, the 15 and 30 min latencies of the FEN + KSL group significantly prolonged in all three days. Compared to the tail-flick measurements of the control and KSL groups, FEN group had a prolongation at 15 and 30 min latencies on the first day, and only at 15 min latencies on the second and third days. On the other hand, we found that there was significant prolongation in all time points for three days in FEN + KSL group. None of the drugs caused sedation or motor incoordination in rats. According to our study results, we observed that KSL can prevent the development of FEN tolerance and prolongs the duration of analgesic action by enhancing FEN analgesia. Thus, FEN can be used safely in the clinic without the need to increase the dose or frequency of administration.

**Keywords:** *Fentanyl, tolerance, xylazine,  $\alpha$ -2 receptor agonist, antinociception*

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**ÖZET**

Fentanil (FEN) ağrı tedavisinde kullanılan güçlü bir opiat analjeziktir. Fakat, uzun süreli ve/veya yüksek dozlarda kullanılması sonucu antinosiseptif etkisine karşı tolerans gelişimine neden olduğu için klinik kullanımı sınırlıdır. Bu çalışmada,  $\alpha$ -2 adrenoreseptör agonisti ksilazin (KSL)'in, FEN analjezi ve toleransı üzerindeki etkilerini araştırmayı amaçladık. Otuz adet Wistar albino erkek sıçan dört gruba ayrıldı. Kontrol (salin), FEN (40  $\mu$ g / kg), KSL (1 mg / kg) ve FEN + KSL (40  $\mu$ g / kg + 1 mg / kg) gruplarına üç gün boyunca intraperitoneal enjeksiyon yapıldı. Analjezi testleri (tail-flick ve hot-plate) ilaç uygulamasından hemen önce (baseline) ve enjeksiyondan sonraki 15, 30, 60, 90 ve 120 dakikalarda yapıldı. Motor koordinasyon ise rotarod performans testi ile değerlendirildi. Tüm testler üç gün boyunca yapıldı. FEN grubunun birinci gün 15. ve 30.dk latansları, baseline ölçümlerinden anlamlı şekilde daha uzundu. Buna karşın, ikinci ve üçüncü günlerdeki 15 ve 30.dk latans ölçümlerinde uzama olmadı. Bu sonuçlar FEN analjezisine karşı tolerans geliştiğini gösterdi. KSL grubunun hiçbir zaman diliminde latans değişikliği olmadı. Fakat, aynı gün baseline ölçümleriyle karşılaştırıldığında, FEN + KSL grubunun 15 ve 30.dk latansları her üç günde de önemli ölçüde uzamıştı. Kontrol ve KSL gruplarının tail-flick ölçümleriyle karşılaştırıldığında, FEN grubunun

birinci gün 15 ve 30.dk, ikinci ve üçüncü günlerde ise sadece 15.dk latanslarında uzama vardı. Buna karşın, FEN + KSL grubunun tüm zaman noktalarında üç gün boyunca önemli uzama vardı. Uygulanan ilaçların hiçbiri sıçanlarda sedasyon veya motor inkoordinasyona neden olmadı. Çalışma sonuçlarımıza göre, KSL'nin FEN toleransının gelişimini önleyebildiğini ve FEN analjezisini artırarak analjezik etki süresini uzattığını gözlemledik. Böylelikle FEN dozu veya uygulama sıklığını artırmaya gerek kalmadan klinikte güvenle kullanılabilir.

**Anahtar Kelimeler:** *Fentanil, tolerans, ksilazin,  $\alpha$ -2 reseptör agonisti, antinosisepsiyon*

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**AN UNCOMMON INTRAMUSCULAR SOFT TISSUE TUMOR: LIPOMA OF THE TONGUE**

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**ABSTRACT**

Lipomas are benign soft tissue neoplasms seen in patients 40 years of age and older. The buccal mucosa is the most common intraoral site for lipomas, and less common sites include the tongue, floor of the mouth, retromolar region, and lip. Although lipomas are common soft tissue tumors, a limited number of oral cavity located case have been reported.

In the current study a case of lipoma at the right lateral border of the tongue of a 37-year-old male patient was presented. The patient applied to our clinic with a complaint of swelling in the tongue and sucking parafunction that he could not prevent. A yellowish painless swelling measuring approximately 1 cm in diameter at the right lateral border of the tongue was observed in the intraoral examination. Under the clinical pre-diagnosis of a lipoma, the tumor was excised under local anesthesia and underwent histological examination for certain diagnosis. The final histopathological diagnosis was a lipoma. No recurrence was noted after a follow-up period of 1 year.

An accurate differential diagnosis, post-operative histological examination and careful follow-up are recommended for exclusion of malignant infiltrative lesions and treatment of lipomas.

**Keywords:** *Lipoma, Benign Neoplasms, Tongue, Tongue Habits.*

**INVESTIGATION OF THE RELATIONSHIP BETWEEN MAGNESIUM LEVEL AND VITAMIN D, BONE MINERAL DENSITY, KNEE OSTEOARTHRITIS AND CHRONIC DISEASES**

MAGNEZYUM DÜZEYİ İLE D VİTAMİNİ, KEMİK MİNERAL YOĞUNLUĞU, DİZ OSTEOARTRİTİ VE KRONİK HASTALIKLAR ARASINDAKİ İLİŞKİNİN ARAŞTIRILMASI

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**ABSTRACT**

Magnesium (Mg) is obligatory for maintaining numerous physiological cellular functions. Mg deficiency is linked with a number of health conditions including osteoporosis, hypertension, diabetes mellitus, atherosclerosis and coronary heart disease, and malignancies (colon and breast). Although calcium (Ca) and vitamin D have been the master focus of nutritional prevention of osteoporosis, several minerals such as copper, zinc, selenium, and Mg are also known to be important. Mg is dominantly located within the cartilage and bone of a human body. In Mg deficiency, there are decreased synthesis, release, and action of parathyroid hormone (PTH) and 1,25(OH)<sub>2</sub>D. In several studies, a significant association has been found between bone density and the intake of Mg and dietary Mg restriction promotes osteoporosis. Moreover, there is some evidence about the link between Mg level and prevalence of knee osteoarthritis (OA). The aim of the study was to evaluate the relationship between Mg level and vitamin D, bone mineral densitometry (BMD), knee OA and chronic diseases. A total of 98 patients (92 female, 6 male) between the ages of 40 and 75 who presented to the outpatient clinic with complaints of knee pain were included. Data on age, sex, body mass index (BMI), smoking, menopausal status, duration of menopause, family history of osteoporosis, the presence of chronic diseases. The serum levels of Mg, Ca, 25(OH)vitaminD<sub>3</sub>, ALP and PTH measurements were performed on whole patients. Moreover, all patients underwent weight-bearing bilateral anteroposterior radiography of the knee by using X-Ray, and BMD of femoral neck and lumbar vertebrae (L1-L4) by using DEXA. The presence of osteoporosis was accepted as T scores ≤ -2.5. The mean age of the study population was 59.15±10.58 years. Forty-seven (48%) patients had osteoporosis: two of them were male (4.3%) and the others were female (95.7%). Of all patients, 8.2% (n=8), 22.4% (n=22), 45.9% (n=45), 20.4% (n=20), and 3.1% (n=3) had KL Grade 0, 1, 2, 3, and 4 knee OA, respectively. The percentages of chronic diseases were 35.7% for HT (n=35), 20.4% for DM (n=20), 4.1% for hyperlipidemia (n=4), 10.2% for coronary artery disease (n=10), and 21.4% for hypothyroidism (n=21). A statistically significant relationship was found between the level of Mg and age, smoking, duration of menopause, presence of chronic disease, PTH level, vitamin D level and femoral neck T score (p< 0.05). The optimizing Mg status through diet and supplementation seems to be a safe and beneficial treatment for the regulation of vitamin D and PTH metabolism, osteoporosis and various chronic diseases. Future studies are needed to investigate the relationship between Mg and knee OA.

**Key words:** *Magnesium; vitamin D; osteoporosis; chronic diseases; knee osteoarthritis.*

**ÖZET**

Magnezyum (Mg), çok sayıda fizyolojik hücresel işlevi sürdürmek için zorunludur. Mg eksikliği, osteoporoz, hipertansiyon, diabetes mellitus, ateroskleroz ve koroner kalp hastalığı ve maligniteler (kolon ve meme) dahil olmak üzere bir dizi sağlık durumu ile bağlantılıdır. Kalsiyum (Ca) ve D vitamini, osteoporozun beslenmeyle önlenmesinde ana odak noktası olmasına rağmen, bakır, çinko, selenyum ve Mg gibi çeşitli minerallerin de önemli olduğu bilinmektedir. Mg baskın olarak insan vücudunun kıkırdığı ve kemiği içinde bulunur. Mg eksikliğinde, paratiroid hormonu (PTH) ve 1,25 (OH) 2D'nin sentezi, salınımı ve etkisi azalmıştır. Birkaç çalışmada, kemik yoğunluğu ile Mg alımı arasında önemli bir ilişki bulunmuştur ve diyetteki Mg kısıtlamasının osteoporozu teşvik edebileceği

önerilmiştir. Ayrıca, Mg seviyesi ile diz osteoartriti (OA) prevalansı arasındaki bağlantı hakkında da bazı kanıtlar vardır. Çalışmanın amacı, Mg düzeyi ile D vitamini, kemik mineral dansitometri (KMY), diz OA ve kronik hastalıklar arasındaki ilişkiyi değerlendirmektir. Polikliniğe diz ağrısı şikayeti ile başvuran 40-75 yaş arası toplam 98 hasta (92 kadın, 6 erkek) dahil edildi. Yaş, cinsiyet, vücut kitle indeksi (VKI), sigara kullanımı, menopoiz durumu, menopoiz süresi, ailede osteoporoz öyküsü, kronik hastalıkların varlığı ile ilgili veriler toplandı. Tüm hastaların serum Mg, Ca, 25 (OH)vitaminD3, ALP ve PTH ölçümleri yapıldı. Ayrıca tüm hastalara X-Ray kullanılarak bilateral ayakta ön-arka diz grafisi, DEXA kullanılarak femur boynu ve bel omurlarının (L1-L4) KMY'si çekildi. Osteoporoz varlığı T skoru  $\leq -2,5$  olarak kabul edildi. Çalışma popülasyonunun ortalama yaşı  $59.15 \pm 10.58$  yılıdır. Kırk yedi (% 48) hastada osteoporoz vardı: ikisi erkek (% 4,3) ve diğerleri kadındı (% 95,7). Hastaların sırasıyla % 8,2'si (n = 8), % 22,4'ü (n = 22), % 45,9'u (n = 45), % 20,4'ü (n = 20) ve % 3,1'i (n = 3) KL Grade 0, 1, 2, 3 ve 4 diz OA sahipti. Kronik hastalık yüzdesi HT için %35,7 (n = 35), DM için %20,4 (n = 20), hiperlipidemi için %4,1 (n = 4), koroner arter hastalığı için %10,2 (n = 10) ve hipotiroidizm için %21,4 (n = 21) idi. Mg düzeyi ile yaş, sigara kullanımı, menopoiz süresi, kronik hastalık varlığı, PTH düzeyi, vitamin D düzeyi ve femur boynu T skoru arasında istatistiksel olarak anlamlı ilişki bulundu (p < 0.05). Diyet ve takviye yoluyla Mg durumunun optimize edilmesi, D vitamini ve PTH metabolizmasının, osteoporozun ve çeşitli kronik hastalıkların düzenlenmesi için güvenli ve faydalı bir tedavi gibi görünmektedir. Mg ve diz OA arasındaki ilişkiyi araştırmak için daha ileride yapılacak çalışmalara ihtiyaç vardır.

**Anahtar Kelimeler:** *Magnezyum; vitamin D; osteoporoz; kronik hastalıklar; diz osteoartri*

**FOR LAPROSCOPIC SECOND LOOK, ABDOMEN PLACED TROCAR'S CECUM  
PERFORATION (CASE REPORT)**  
LAPROSKOPİK İKİNCİ BAKI İÇİN KARINA YERLEŞTİRİLMİŞ TROKARIN ÇEKUM  
PERFORASYONU (OLGU SUNUMU)

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**ABSTRACT**

It may be necessary to second look for the vitality of the intestine after 24-72 hours postoperatively in terms of ischemia after resection of masses invading the intestinal meso. Laparoscopic second look can be perform in a shorter time and with less risk than relaparatomy.

CASE: A 5 mm trocar was placed and fixed in the right lower quadrant of the abdomen in first operation for secoand look to sigmoid colon vitality in a 55-year-old female patient with left ovarian tumor invading the sigmoid colon mesentery. After the 72 hours primer surgery although the patient had no clinique findings, perforated the cecum with trocar was observed which placed for laparoscopic examination.

CONCLUSION: Laparoscopy is the gold standard for a second look. However, complications may also occur due to the placement of the trocar in the abdomen.

**Keywords:** *Intestinal ischemia, laparoscopic second look, perforation.*

**ÖZET**

Bağırsak mezosuna invaze kitlelerin rezeksiyonu sonrası iskemi açısından postoperatif 24-72 saat sonra bağırsak canlılığını değerlendirmek için ikinci bakı gerekebilir. Laparoskopik ikinci bakı, relaparatomiyeye göre daha kısa sürede ve daha az riskle yapılabilir.

OLGU: Sigmoid kolon mezosunu invaze eden sol over tümörlü 55 yaşındaki kadın hastanın sigmoid kolon canlılığını değerlendirmek amacıyla ikinci bakı için ilk operasyonda karnın sağ alt kadrana 5 mm'lik trokar yerleştirildi ve sabitlendi. Primer cerrahiden 72 saat sonrası hastanın klinik bulgusu olmamasına rağmen, yapılan cerrahide laparoskopik inceleme için yerleştirilen trokarın çekumu perfore ettiği görüldü.

SONUÇ: Laparoskopi ikinci bakı için altın standarttır. Ancak trokarın karın içerisine yerleştirilmesine bağlı olarak da komplikasyonlar ortaya çıkabilir.

**Anahtar Kelimeler:** *Bağırsak iskemisi, laparoskopik ikinci bakı, perforasyon.*

GELİŞİMSEL KALÇA DİSPLAZİSİNDE DİNAMİK ULTRASONOGRAFİ TETKİKİNİN  
YERİ  
THE PLACE OF DYNAMIC ULTRASOUND EXAMINATION IN DEVELOPMENTAL HIP  
DISPLASIA

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**ABSTRACT**

**Introduction:** Generally, the prognosis of children receiving treatment for hip dysplasia is very good, especially if they are managed with early diagnosis and non-operative treatment (closed). If closed therapy fails and open reduction is required, the short-term outcome is less favorable, although it seems satisfactory.

Hip ultrasonography (US) is used as a screening test for the diagnosis of developmental hip dysplasia (DDH) in many centers. In this study, dynamic hip US and standard US were compared and the contribution of dynamic hip USG to the diagnosis was investigated.

**Material-method:** After orthopedic physical examination or without examination for routine screening purposes, 246 newborns (492 hips), 170 girls and 76 boys, were evaluated by standard and dynamic USG method. The youngest baby was 1 and the oldest was 9 months old. 169 babies were less than 3 months old and 77 babies were older than 3 months. Necessary anamnesis information was recorded by obtaining consent from the families of the patients. Babies who needed to be followed up were called for control 4 weeks later.

**Results:** In our study, immature hip cases were found in 82 cases (16.67%) in girls, 19 cases in boys (4.06%), dysplastic hips in 24 (4.88%) cases in girls, and in 2 cases (0.41%) in men, the differences between both immature ( $p < 0.03$ ) and significant for dysplastic ( $p < 0.035$ ) hips.

**Conclusions:** The risk of hip immaturity and dysplasia increases in babies with Ortolani-Barlow test positivity and at least one or more risk factors, and if possible, simultaneous application of US examination together with physical examination tests can contribute to the diagnosis.

**Keywords:** *Developmental hip dysplasia, Ultrasonography, Ortolani-Barlow test.*

**ÖZET**

**Giriş:** Genel olarak kalça displazisi tedavisi alan çocukların prognozu, özellikle erken tanı konularak operasyonsuz tedavi (kapalı) ile yönetiliyorsa çok iyidir. Eğer kapalı tedavi başarısız olursa ve açık redüksiyon gerekliyse, kısa vadeli sonuç tatmin edici görülse de daha az elverişlidir.

Bir çok merkezde gelişimsel kalça displazisi (GKD) tanısı için tarama testi olarak kalça ultrasonografisi (USG) kullanılmaktadır. Bu çalışmada dinamik kalça USG tetkiki ile standart USG tetkiki karşılaştırıldı ve dinamik kalça USG' nin tanıya katkısı araştırıldı.

**Materyal-metod:** Ortopedik fizik muayene sonrası ya da muayenesiz rutin tarama amaçlı 170'i kız, 76'sı erkek olmak üzere 246 yenidoğan (492 kalça) standart ve dinamik USG yöntemi ile değerlendirildi. En küçük bebek 1, en büyük bebek 9 aylıktı. 169 bebek 3 aydan küçük, 77 bebek ise 3 aydan büyüktü. Hastaların ailelerinden onam alınarak gerekli anamnez bilgileri kaydedildi. Takip edilmesi gereken bebekler 4 hafta sonra kontrole çağrıldı.

**Bulgular:** Çalışmamızda immatür kalça olgularına kızlarda 82 (%16.67), erkeklerde 19 (%4.06) olguda, displazik kalçalara ise kızlarda 24 (%4.88), erkeklerde 2 (%0.41) olguda rastlanmış olup aradaki farklar hem immatür ( $p < 3$ ) hem de displazik ( $p < 0.035$ ) kalçalar için anlamlıdır.

**Sonuçlar:** Ortolani-Barlow testi pozitifliği ve en az bir ya da daha fazla risk faktörü saptanan bebeklerde kalça immatürite ve displazi riski artmaktadır ve mümkünse USG tetkikinin eş zamanlı olarak fizik muayene testleri ile birlikte uygulanmasının tanıya katkısı mevcuttur.

**Anahtar Kelimeler:** *Gelişimsel kalça displazisi, Ultrasonografi, Ortolani-Barlow testi.*

## **CURRENT TRENDS IN JOBS CALL FOR CHANGE IN THE TRADITIONAL CAREER COUNSELLING MODELS**

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### **ABSTRACT**

In the report, the common career counseling models, namely Person-Environment-Fit (PEF), developmental model, the learning theory model and cognitive information processing (CIP) model are summarized by describing each according to its counseling goals, intake interview techniques, use of assessment, diagnosis, and counseling process. The process of career counseling usually begins with an intake interview, then switches to assessment, followed by diagnosis and problem identification, moves to a counseling process, followed by intervention steps, and ends with an evaluation of results and creation of future plans. Following these descriptions, the counselling practices are explained in the view of their historical developments of the world of work and are related in the perspective of the recent trends in jobs, citing the report „The future of jobs 2020“ by World economic forum. The trends are the pace of technology adoption, automation, digitalization, the shorter window of opportunity for workers to reskill and upskill, the difference in the online learning needs observed in the employed and unemployed workforce, the value that employers recognise of human capital investment and the testified skill gap as a result of the rapid jobs change. On this basis it is concluded that in the 21<sup>st</sup> century the new social arrangement of work poses a series of questions and challenges to career counsellors that aim to help people develop their working lives assuming that occupational prospects are less definable and predictable, and job transitions are more frequent and difficult. These challenges require workers to develop skills and competences that differ from the knowledge and abilities required by the traditional occupations. The findings imply that current approaches are insufficient, because: 1) they are embedded in assumptions of stability of personal characteristics and secure jobs in bounded organizations and 2) they define careers as a fixed sequence of stages. Following this point of view the theoretical models are needed to emphasize human flexibility, adaptability, and life-long learning, while future methods of career counseling should adopt a dynamic approach that encourages individuals' imaginative thinking and the exploration of possible selves. The purpose of this study is to reveal that the current trends of change in the work world impose a new, contextual approach in career counselling.

**Keywords:** *Career counselling, models, PEF, CIP, jobs.*



**COVID-19 SÜRECİ VE SONRASI BÜYÜME STRATEJİSİNİ YENİDEN DÜŞÜNMEK:  
MÜZİK SEKTÖRÜ ÖRNEĞİ**  
RE-THINKING THE GROWTH STRATEGY DURING AND AFTER COVID-19 PROCESS.  
MUSIC INDUSTRY EXAMPLE

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**ABSTRACT**

During the pandemic process, some sectors have already gone through this process with less damage, as they have already moved their business processes online. The music industry is also one of the sectors that have transferred their processes to the digital platform and have been very successful in this regard. Companies had encountered with some problems during the pandemic process and use strategies other than growth in terms of basic business strategies. As the Organization Ecology Theory explains, environmental conditions are the main determinants of organizations and organizations that cannot keep up with these conditions are doomed to disappear. The music industry has also been able to make this transformation before, so we expect it to overcome the pandemic process with less damage. However, in practice, some companies do not only deal with releasing albums, but also add a new line of business as a basic growth strategy, and the artists they work with, concerts and so on. It has a structure that also organizes some of its activities and gains profit at this point. It is also a question mark when companies dealing with organizations will activate their activities again. As a matter of fact, unfortunately, no health authority can answer the question of when the pandemic process and the negative effects of this process will disappear. A significant portion of the entertainment centers that cannot operate due to the pandemic make payments to the companies that have the right to the music album through professional associations under the name of other general income. Therefore, the revenues of the companies are obtained from the listening of albums on platforms such as spotify, fizzy, youtube and the works used in channels such as radio, commercials and TV series / movies. Although it is a relatively positive development that the artists prefer some activities over youtube, it seems that it will result in the artists making their own albums without an agreement with a company. The aim of this research is to conduct a qualitative meeting with the relevant people of small, medium and large-scale companies, and to offer a solution proposal on what kind of innovation should be carried out in order for music companies to survive, and what the main themes are. Undoubtedly, the disappearance of the companies, which have a central role in the music industry, will adversely affect the economy of our country.

**Keywords:** *Strategic Management, Growth Strategy, Music Industry, Pandemic.*

**ÖZET**

Pandemi sürecinde bazı sektörler iş süreçlerini online ortama hali hazırda taşıdıkları için bu süreci daha az hasarla geçirmişlerdir. Müzik sektörü de süreçlerini dijital platforma taşımış ve bu konuda oldukça başarılı olmuş sektörlerden birisidir. Pandemi sürecinde yara alan firmalar temel işletme stratejilerinden büyüme dışında diğer stratejileri kullanmaktadır.. Örgüt Ekolojisi Kuramı'nın da açıkladığı üzere çevresel koşullar organizasyonların üzerindeki temel belirleyicidir ve bu koşullara ayak uyduramayan organizasyonlar yok olmaya mahkumdurlar. Müzik sektörü de bu dönüşümü daha önceden yapabilmiş, dolayısıyla pandemi sürecini daha az hasarla atlattığını beklediğimiz bir sektör. Ancak uygulamada bazı firmaların sadece albüm çıkartmak ile uğraşmadığı, bunun yanında temel büyüme stratejisi olarak yeni bir iş kolu ekleyerek birlikte çalıştıkları sanatçıların konser vb. birtakım faaliyetlerini de organize eden ve bu noktada kazanç elde eden bir yapıya kavuşmuştur. Sanatçı konser vb. organizasyonlar ile uğraşan firmaların faaliyetlerini bir daha ne zaman aktif hale getirecekleri de soru işareti olarak karşımıza çıkmaktadır. Nitekim pandemi sürecini ve bu sürecin

olumsuz etkilerinin ne zaman ortadan kalkacağı sorusunu maalesef hiçbir sağlık otoritesi cevaplayamamaktadır. Pandemiden dolayı faaliyet gösteremeyen eğlence merkezlerinin önemli bir kısmı müzik albümü üzerinde hak sahibi olan firmalara umumi mahal geliri adı altında meslek birlikleri üzerinden ödeme yapmaktadırlar. Dolayısıyla firmaların gelirleri albümlerin spotify, fizzy, youtube gibi platformlardaki dinlemeler ile radyo, reklam ve dizi / film gibi mecralarda kullanılan eserler üzerinden elde edilmektedir. Sanatçıların youtube üzerinden birtakım faaliyetleri tercih etmesi nispeten pozitif bir gelişme olsa da zamanla ilgili sanatçıların bir firma ile anlaşmadan kendi albümlerini kendileri yapması gibi bir sonucu doğuracak gibi görünmektedir. Bu araştırmanın amacı küçük, orta ve büyük ölçekli firmaların ilgilileri ile nitel bir görüşme gerçekleştirerek müzik firmalarının ayakta kalması için nasıl bir inovasyonun gerçekleştirilmesi gerektiği, ana temaların neler olduğu yönünde bir çözüm önerisi sunmaktır. Kuşkusuz ki müzik sektörünün yapı taşları olan firmaların yok olması ülkemiz ekonomisini de olumsuz yönde etkileyecektir.

**Anahtar Kelimeler:** *Stratejik Yönetim, Büyüme Stratejisi, Müzik Sektörü, Pandemi.*

**EXAMINATION OF HEALTH SEEKING BEHAVIOUR OF CONSUMERS: A GENDER  
BASED APPROACH**

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**ABSTRACT**

The main purpose of the study was to determine whether there was any difference among gender groups for consumers in terms of health seeking behaviour and its dimensions, namely, online health seeking behaviour, professional health seeking, and traditional health seeking behaviour. The data were obtained from consumers in Turkey via questionnaire. Online questionnaire method was preferred for gathering the data because of the pandemic conditions and time limitation. The questionnaires were conducted by using convenience and snowball sampling techniques. The findings indicated that there were statistically significant differences in health seeking behaviour and in traditional health seeking behaviour among the gender groups; whereas, there was no significant difference between gender groups in terms of online health seeking behaviour and professional health seeking behaviour. Furthermore, female participants were found to engage more in health seeking behaviour and traditional health seeking behaviour. The findings of the study can be helpful for health service organizations not only when deciding whether to segment by gender but also how to design the marketing offerings. The findings also point out to researchers that the issue of gender is still a fruitful topic in the health behavior of consumers. The major contributions of this study are to enrich and clarify the knowledge of similarities and/or differences in terms of health seeking behaviour and its dimensions among consumers with a gender based approach.

**Keywords:** *Health seeking behaviour, online health seeking behaviour, professional health seeking, traditional health seeking behaviour, consumer behaviour, gender.*

**Research area:** Marketing, consumer behaviour.

**ASLANTEPE HÖYÜĞÜNÜN MUHASEBENİN GELİŞİMİNE KATKISI**  
**CONTRIBUTION OF ASLANTEPE MOUND TO THE DEVELOPMENT OF ACCOUNTING**

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**ABSTRACT**

Anatolia has attracted the attention of various civilizations throughout history with its geographical location, underground and aboveground riches. Since communication was not as fast as today in civilizations before Christ, that people can follow the developments in different geographies was possible by displacement between regions, such as war, trade, and travel. Due to the lack of communication facilities, advances in science and technology in different geographies could only be noticed after years.

Countries dealing with trade had the opportunity to learn and apply scientific developments from settlements or trade centers on trade routes. The first traces of settlement in the Malatya Aslantepe Mound were seen around 5,000 BC. The Höyük area, which was used as a settlement until 5-6 AD. centuries, was later used as a Byzantine cemetery. We also see practices similar to accounting practices in the kingdom of Aslantepe in Malatya in those of Assyrian merchants during the Assyrian Trade Colonies Period as well. The Assyrians were established in Mosul territory in the northern part of today's Iraq in the 2000s BC. The Assyrians were destroyed in 612 BC at the end of a tumultuous history. They also used the trade route passing through Malatya / Aslantepe while traveling to Kültepe / Kāniš, the center of the colonial system they established in Anatolia between 1974-1719 BC in order to make the trade which Assyrian performed with the local kingdoms of Anatolia systematical and organized way. It is thought that the seals found in Aslantepe mound and the broken tablets found in Kayseri / Kültepe mound belonging to the Assyrian merchants were used in the internal control and inventory work. Again, it is estimated that a tool considered as a calculation tool found in Aslantepe mound and another tool belonging to Assyrian merchants were used in the calculation processes.

In this study, by examining the relationship between Aslantepe mound and Assyrian merchants, it will be tried to reveal whether the Assyrian merchants benefited from the scientific developments in Aslantepe or not. It can be said that the accounting system used by the Assyrian merchants who established a colonial system in Anatolia between 1974 and 1719 BC was influenced by the Aslentepe civilization.

**Keywords:** *Aslantepe Mound, Assyrian Trade Colonies, Internal Control, Inventory, Calculation Tool*

**ÖZET**

Anadolu sahip olduğu coğrafi konumu yeraltı ve yerüstü zenginlikleri ile tarih boyunca çeşitli uygarlıkların ilgisini çekmiştir. Milattan önceki uygarlıklarda iletişim günümüzdeki kadar hızlı olmadığından insanların farklı coğrafyalardaki gelişmeleri takip edebilmeleri; savaş, ticaret, seyahat gibi bölgeler arası yer değiştirmeye mümkün olmaktadır. İletişim olanaklarının yetersizliğinden dolayı farklı coğrafyalardaki bilim ve teknoloji alanlarındaki ilerlemeler ancak yıllar sonra fark edilebiliyordu.

Ticaret ile uğraşan ülkeler ticaret yolları üzerindeki yerleşim yerlerinden veya ticaret merkezlerinden bilimsel gelişmeleri öğrenme ve uygulama fırsatı yakalamaktaydı. Malatya Aslantepe Höyüğünde ki ilk yerleşim izleri MÖ 5.000 yıllarında görülmüştür. MS 5-6. Yüzyıllara kadar yerleşim yeri olarak kullanılan Höyük alanı daha sonra Bizans mezarlığı olarak kullanılmıştır. Malatya'da bulunan Aslantepe krallığındaki muhasebe uygulamalarına benzer uygulamaları Asur Ticaret Kolonileri

Döneminde Asurlu tüccarlarda da görmekteyiz. Asurlular bugünkü Irak topraklarının kuzey bölgesinde Musul toprakları içinde MÖ 2 binli yıllarda kurulmuştur. Asurlular inişli çıkışlı bir tarihin sonunda MÖ 612 tarihinde yıkılmıştır. Asurlular Anadolu'nun yerel krallıklarla yaptıkları ticareti sistemli ve organize bir hale getirmek için MÖ 1974-1719 tarihleri arasında Anadolu'da kurmuş oldukları koloni sisteminin merkezi olan Kültepe/ Kāniš'e seyahat ederken Malatya/Aslantepe'den geçen ticaret yolunu da kullanmaktaydılar. Aslantepe höyüğünde bulunan mühürler ile Asurlu tüccarlara ait Kayseri/Kültepe höyüğünde bulunan kırılmış tabletler iç kontrol ve envanter çıkarma çalışmasında kullanıldığı düşünülmektedir. Yine Aslantepe höyüğünde bulunan bir hesaplama aracı olarak düşünülen bir araç ile Asurlu tüccarlara ait bir başka aracın da hesaplama işlemlerinde kullanıldığı tahmin edilmektedir.

Bu çalışmada Aslantepe höyüğü ile Asurlu tüccarların arasındaki ilişki incelenerek Asurlu tüccarların Aslantepe'de ki bilimsel gelişmelerden faydalanıp faydalanmadığı ortaya konmaya çalışılacaktır. MÖ 1974-1719 yılları arasında Anadolu'da koloni sistemi kuran Asurlu tüccarların kullanmış olduğu muhasebe sistemi Aslentepe uygarlığından etkilendiği söylenebilir.

**Anahtar Kelimeler:** *Aslantepe Hüyüğü, Asur Ticaret Kolonileri, İç Kontrol, Envanter, Hesaplama Aracı*

**FERDİ VE ŞÜREKÂSI ROMANI ÜZERİNDEN MUHASEBECİ MESLEĞİNİN  
DEĞERLENDİRİLMESİ**  
EVALUATION OF THE ACCOUNTANT PROFESSION THROUGH THE NOVEL OF FERDİ  
AND ŞÜREKÂSI

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**ABSTRACT**

Accounting is a science as old as human history. A large part of what people possess has been subject to trade over time, and the commercial life, which started with the barter method, continued with money and derivatives of money for a long time. The use of precious metals in trade has facilitated, stimulated and intensified commercial relations. The use of money and its derivatives has expanded the commercial relations spatially and diversified them functionally. This change and transformation in commercial relations made it necessary to use the financial registration system. Accounting, which is based on the systematic maintenance of the financial record system, has experienced a development in parallel with the developments in commercial transactions. In this context, the development in trade, on the one hand, , mediates that trade is performed over the global scale and functional diversification of trade, and on the other hand, has also resulted in the emergence of the accounting profession that would record these commercial transactions. The accountant profession, which is known to have existed in ancient civilizations, has formed one of the indispensable profession groups in commercial life for many years. Literary texts are works of art in which social relations are presented in an aesthetic way. Novels are works of art that have a special place in literary texts. Most of the time, the novels present detailed information on social life and mirror the period in which they were written. Although the fiction in the treatment of novel subjects is defined as fictional, daily life has been the source and mediation of this fiction. Novels can focus on or refer to any character, profession or environment. Novels that add value to character that they focus or refer to, the profession or spatial can reveal the value of the professions which it deals with before the society in an explicit or implicit way.

In this context, accepted as one of the important writers of the Turkish novel, Halit Ziya Uşaklıgil's approach to accountant profession is discussed in the novel *Ferdî ve Şürekâsı*. In this study, through the novel *Ferdî ve Şürekâsı* written by Halit Ziya Uşaklıgil, the social and economic situation of accountants in the last years of the Ottoman Empire and their value in society is tried to reveal.

**Keywords:** *Fiction in Novel, Accounting, Accountant*

**ÖZET**

Muhasebe insanlık tarihi kadar eski bir bilim dalıdır. İnsanların sahip olduklarının büyük bir kısmı zaman içerisinde ticarete konu olmuş, takas usulüyle başlayan ticari hayat uzun bir süre para ve paranın türevleri ile sürdürülmüştür. Değerli metallerin ticarete kullanımı ticari ilişkileri kolaylaştırmış, canlandırmış ve yoğunlaştırmıştır. Para ve türevlerinin kullanımı ise, ticari ilişkileri mekânsal olarak genişletmiş fonksiyonel olarak da çeşitlendirmiştir. Ticari ilişkilerdeki bu değişim ve dönüşüm, mali kayıt sisteminin kullanılmasını gerekli kılmıştır. Mali kayıt sisteminin sistematik bir şekilde sürdürülmesini esas alan muhasebe, ticari işlemlerdeki gelişmelere paralel bir gelişme yaşamıştır. Bu bağlamda ticaretteki gelişme, bir taraftan ticaretin küresel ölçekte yapılmasına ve fonksiyonel olarak çeşitlenmesine aracılık ederken, diğer taraftan bu ticari işlemleri kayıt edecek muhasebecilik mesleğinin doğmasına da kapı aralamıştır. Çok eski uygarlıklarda var olduğu bilinen muhasebeci mesleği, uzun yıllardır ticari hayatta olmaz ise olmaz meslek gruplarından birisini oluşturmuştur.

Edebi metinler, toplumsal ilişkilerinin estetize bir şekilde sunulduğu sanat eserleridir. Romanlar, edebi metinler içerisinde özel bir yeri olan sanat eserleridir. Romanlar çoğu zaman toplum hayatına dair bilgileri detaylı bir şekilde sunmakta, yazıldığı döneme ayna tutmaktadırlar. Roman konularının işlenmesinde ki kurmaca her ne kadar hayali olarak tanımlansa da, günlük yaşam bu kurmacaya

kaynaklık ve aracılık etmiştir. Romanlar herhangi bir karakter, meslek veya ortama odaklanmakta veya değinebilmektedir. Odaklandığı veya değindiği karakter, meslek veya ortama değer yükleyen romanlar, ele aldığı mesleklerin toplum nezdindeki değerini açık veya örtülü bir şekilde ortaya koyabilmektedir. Bu kapsamda Türk romanının önemli yazarlarından biri kabul edilen Halit Ziya Uşaklıgil'in yazmış olduğu Ferdi ve Şürekâsı romanında muhasebeci mesleğine yaklaşımı bu çalışmada ele alınmaktadır.

Bu çalışmada Halit Ziya Uşaklıgil'in yazmış olduğu Ferdi ve Şürekâsı romanı üzerinden Osmanlı İmparatorluğunun son yıllarında muhasebecilerin sosyal ve ekonomik durumu ile toplum nezdindeki değeri ortaya çıkartılmaya çalışılmaktadır.

**Anahtar Kelimeler:** *Romanda Kurgu, Muhasebe, Muhasebeci*

**COVID-19 KÜRESEL SAĞLIK KRİZİ VE YENİ KORUMACI POLİTİKA  
UYGULAMALARI**  
COVID-19 GLOBAL HEALTH CRISIS AND NEW PROTECTIONIST POLICY  
IMPLAMENTATIONS

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**ABSTRACT**

New protectionist policies are carried out with different tools and methods than the protectionist practices used in previous periods. While the new protectionist policy practices that started after the 2008 global crisis in the world economy continued, the global health crisis of Covid-19 emerged and affected the whole world.

New protectionist policy measures implemented in the world economy after the 2008 global crisis have been expanded and widespread due to the covid-19 health crisis. While protective practices applied in the previous periods were generally applied as import restrictions, export restrictions and prohibitions were also applied in the covid-19 period. In this period, protectionist policies were used regardless of the rules of the global economic system, especially the WTO rules. In addition, many countries have implemented trillion-dollar financial support programs.

Due to the Covid-19 health crisis, disruptions have occurred in global supply chains. There have been disruptions in the world trade of many products, especially sanitary ware and protective equipment. In addition, production decreased, unemployment and poverty increased in the world economy.

In this study, the new protectionist policies implemented due to the 2008 global crisis and the new protectionist policy practices that have been expanded due to the covid-19 health crisis are examined. Different aspects and tools of the implemented policy measures compared to the protectionist policies implemented in the previous periods are emphasized.

In the conclusion part of our research, the effects of the implemented policies are emphasized. Since the effects of the covid-19 health crisis continue, the expected consequences of these policies are also addressed.

**Keywords:** *Covid-19 health crisis, New protectionist policies implemented due to covid-19 health crisis, Global supply chains.*

**ÖZET**

Yeni korumacı politikalar daha önceki dönemlerde başvurulmuş korumacılık uygulamalarından farklı araçlarla ve yöntemlerle gerçekleştirilmektedir. Dünya ekonomisinde 2008 küresel krizinden sonra başlayan yeni korumacı politika uygulamaları devam ederken covid-19 küresel sağlık krizi ortaya çıkmış ve tüm dünyayı etkisi altına almıştır.

Dünya ekonomisinde 2008 küresel krizinden sonra uygulanmakta olan yeni korumacı politika önlemleri covid-19 sağlık krizi nedeniyle genişletilmiş ve yaygınlaştırılmıştır. Daha önceki dönemlerde uygulanan korumacı uygulamalar genellikle ithalat kısıtlamaları şeklinde uygulanırken, covid-19 döneminde ihracat kısıtlamalarına ve yasaklarına da başvurulmuştur. Bu dönemde başta DTÖ kuralları olmak üzere küresel ekonomik sistemin kuralları gözetilmeden korumacı politikalara başvurulmuştur. Ayrıca, pek çok ülke trilyon dolarlık mali destek programları uygulamışlardır.

Covid-19 sağlık krizi nedeniyle küresel tedarik zincirlerinde aksamalar meydana gelmiştir. Başta sağlık gereçleri ve koruyucu ekipmanlar olmak üzere pek çok ürünün dünya ticaretinde aksamalar oluşmuştur. Ayrıca, dünya ekonomisinde üretim azalmış, işsizlik ve yoksulluk artmıştır.

Bu çalışmamızda 2008 küresel krizi nedeniyle uygulanan yeni korumacı politikalar ve covid-19 sağlık krizi nedeniyle yaygınlaştırılan yeni korumacı politika uygulamaları incelenmektedir. Uygulanan politika önlemlerinin daha önceki dönemlerde uygulanan korumacı politikalara göre farklılaşan yönleri ve araçları vurgulanmaktadır.



Arařtırmamızın sonu blmnde ise uygulanan politikaların etkileri zerinde durulmaktadır. Covid-19 saėlık krizinin etkileri srmekte olduėundan, bu politikaların beklenen sonularına da ayrıca deėinilmektedir.

**Anahtar Kelimeler:** *Covid-19 saėlık krizi, Covid-19 saėlık krizi nedeniyle uygulanan yeni korumacı politikalar, Kresel tedarik zincirleri.*

**DÜNYA EKONOMİSİNDE YENİ KORUMACI POLİTİKA UYGULAMALARI VE COVID-19 SAĞLIK KRİZİNİN ETKİLERİ**  
**NEW PROTECTIONIST POLICY PRACTICES IN THE WORLD ECONOMY AND THE EFFECTS OF THE COVID-19 HEALTH CRISIS**

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**ABSTRACT**

The effects of the global crisis that started in the world economy in 2008, are continue. Countries have resorted to protectionist policies that they see as a way out of the 2008 global crisis. These policies have been implemented with very different tools and methods than the protective practices that were used from time to time in the previous periods. For this reason, these policies implemented after the 2008 global crisis are called "new protectionist policies".

In this study, the development of protectionist policies in the world economy and the recent “new protectionist policies” that started and continued with the 2008 global economic crisis are examined. In addition, the implementation tools and effects of new protectionist policies are also highlighted.

While the effects of the 2008 global crisis continued in the world economy, the covid-19 health crisis occurred in the last months of 2019. Although the epicentre of this crisis was Wuhan, China, it spread all over the world in a short time and created a devastating tsunami effect in the economic field. Many countries in the world have resorted to restrictive policies that they see as a way out of the crisis. Countries have become more introverted than ever before. The measures taken caused disruptions in the international trade system and global value chain. For this reason, protectionist policies applied due to the covid-19 crisis are also discussed in accordance with our research topic.

The effects of the 2008 global crisis and the covid-19 crisis continue. The measures and developments taken to solve these problems, which constitute the main agenda topics of the global economy, are evaluated in the conclusion part of our research.

**Keywords:** *New protectionist policies, Protectionist policies resorted to due to the covid-19 health crisis, The economic effects of the covid-19 health crisis.*

**ÖZET**

Dünya ekonomisinde 2008 yılında başlayan küresel krizin etkileri sürmektedir. Ülkeler 2008 küresel krizinden çıkış yolu olarak gördükleri korumacı politikalara başvurmuşlardır. Bu politikalar daha önceki dönemlerde zaman zaman başvurulan korumacı uygulamalardan çok farklı araç ve yöntemlerle uygulanmıştır. Bu nedenle 2008 küresel krizinden sonra uygulanan bu politikalar “yeni korumacı politikalar” olarak adlandırılmaktadır.

Bu araştırmada; dünya ekonomisinde korumacı politikaların gelişimi ve 2008 küresel ekonomik krizi ile başlayıp sürmekte olan son dönem “yeni korumacı politikalar” incelenmektedir. Ayrıca, yeni korumacı politikaların uygulama araçları ve etkileri de vurgulanmaktadır.

Dünya ekonomisinde 2008 küresel krizinin etkileri devam ederken, 2019 yılının son aylarında covid-19 sağlık krizi ortaya çıkmıştır. Bu krizin merkez üssü Çin’in Wuhan kenti olmasına rağmen kısa sürede tüm dünyaya yayılmış ve ekonomik alanda yıkıcı bir tsunami etkisi yaratmıştır. Dünya’da pek çok ülke, krizden çıkış yolu olarak gördükleri kısıtlayıcı politikalara başvurmuşlardır. Ülkeler daha önce görülmedik düzeyde içe kapanmıştır. Alınan önlemler uluslararası ticaret sisteminde ve küresel değer zincirinde aksamalara yol açmıştır. Bu nedenle, araştırma konumuza uygun şekilde covid-19 krizi nedeniyle başvurulan korumacı politikalar da ele alınmaktadır.

2008 küresel krizinin ve covid-19 krizinin etkileri sürmektedir. Küresel ekonominin başlıca gündem konularını oluşturan bu sorunların çözümü için alınan önlemler ve gelişmeler ise araştırmamızın sonuç bölümünde değerlendirilmektedir.

**Anahtar Kelimeler:** *Yeni korumacı politikalar, Covid-19 sađlık krizi nedeniyle bařvurulan korumacı politikalar, Covid-19 sađlık krizinin ekonomik etkileri.*

**NİTEL YAKLAŞIMLA TÜRKİYE’DE ASGARI GEÇİM İNDİRİMİ UYGULAMASI**  
**MINIMUM SUBSISTENCE ALLOWANCE APPLICATION WITH A QUALITATIVE**  
**APPROACH IN TURKEY**

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**ABSTRACT**

For the fair distribution of taxes, which constitute the most important part of public revenues, it is seen that there is an aim to reach the ability to pay in many countries' constitutions. In order to reach the solvency, there are progressive taxation, minimum subsistence allowance, and the principle of separation. In addition, exemptions, exceptions or discounts are applied to various subjects and persons. With the minimum subsistence allowance application of these tools, it is aimed to keep the income necessary for the individual and his family to survive, excluding tax. In our country, this practice includes full taxpayers who are taxed by withholding and those who declare their wage income with annual returns. While in some countries the minimum subsistence allowance is deducted directly from taxable income, in some countries it is deducted from the income tax that the person has to pay, as in our country. Therefore, the purpose of this study is to investigate how the minimum subsistence allowance applied in our country is perceived by people who earn wage income in the context of tax justice and to determine the opinions of people about this practice. Qualitative data research was conducted using the semi-structured interview method in the study, and the participants generally do not find the minimum subsistence allowance application sufficient for tax justice.

**Keywords:** *Tax, Income Tax, Tax Justice, Minimum Subsistence Allowance, Solvency*

**ÖZET**

Kamu gelirlerinin en önemli kısmını oluşturan vergilerin adil dağılımı için günümüzde birçok ülke anayasasında ödeme gücüne ulaşma amacı olduğu görülmektedir. Ödeme gücüne ulaşmak için artan oranlı vergileme, asgari geçim indirimi, ayırma ilkesi uygulamalarının dışında bir de çeşitli konu ve kişilere uygulanan muafiyet, istisna veya indirimler uygulanmaktadır. Bu araçlardan asgari geçim indirimi uygulamasıyla, kişinin kendisinin ve ailesinin hayatını devam ettirebilmeleri için gerekli olan gelirin vergi dışında tutulması amaçlanmaktadır. Ülkemizde bu uygulama ücretleri tevkif suretiyle vergilendirilen tam mükellef kişiler ile ücret gelirlerini yıllık beyanname ile bildirenleri kapsamaktadır. Bazı ülkelerde en az geçim miktarı doğrudan doğruya vergiye tabi gelirden düşülürken, bazı ülkelerde ise ülkemizde olduğu gibi kişinin ödemesi gereken gelir vergisinden düşülmektedir. Dolayısıyla bu çalışmanın amacı ülkemizde uygulanan asgari geçim indirimi uygulamasının, ücret geliri elde eden kişiler tarafından vergi adaleti bağlamında nasıl algılandığının araştırılması ve kişilerin bu uygulamaya yönelik düşüncelerinin tespit edilmesidir. Çalışmada yarı yapılandırılmış görüşme yöntemi kullanılarak nitel veri araştırması yapılmış olup, katılımcılar genel olarak asgari geçim indirimi uygulamasını vergi adaleti için yeterli bulmamaktadırlar.

**Anahtar Kelimeler:** *Vergi, Gelir Vergisi, Vergi Adaleti, Asgari Geçim İndirimi, Ödeme Gücü*

**A BIBLIOMETRIC ANALYSIS OF THE YIELD CURVE AND THE TERM STRUCTURE OF INTEREST RATES****GETİRİ EĞRİSİ VE FAİZ ORANLARININ VADE YAPISI ÜZERİNE BİBLİYOMETRİK ANALİZ****Narman KUZUCU***Beykent University, ORCID ID: 0000-0003-2265-6492***Serpil KUZUCU***Beykoz University, ORCID ID: 0000-0003-2949-4086***ABSTRACT**

Analysts and researchers have used the difference between the yields on long-term and short-term bonds, which is called the term structure of interest rates, to estimate output growth, inflation, future economic activities and recessions. The predictive power of the term structure has motivated lots of research. Our purpose is to identify current research trends in the literature of the term structure of interest rates and provide quantitative statistics. We use a bibliometric analysis method to study the literature in the field. A bibliometric analysis enables us to determine current trends. We collected the data from ISI Web of Science (WOS) database. Our search identifies 1,196 journal articles in English language from 2001 to 2020 on the topic of the yield curve and the term structure of interest rates. We conduct a bibliometric analysis of the literature using citation analysis, co-citation analysis, keyword co-occurrence analysis, and co-authorship analysis. We visualize bibliometric networks by the help of the software VOSviewer. We analyze the publication trend on the topic using the data of publications by year, authors, journals, keywords, countries and affiliation organizations. In our dataset, there are 2,507 authors that published 1,196 articles on the subject. The most productive researcher is Rudebusch of Federal Reserve Bank of San Francisco, who published 17 articles in the field. Those 17 articles were cited totally 1,273 times. However, the most cited article is written by Kuttner (2001) with 527 citations, followed by Diebold and Li (2006) with 506 citations and Ang and Piazzesi (2003) with 485 citations. The publications on the term structure are primarily originated from the US, the UK and Germany. Top publishing journal is the Journal of Banking and Finance. Keyword and co-occurrence analysis shows that monetary policy, forecasting, interest rates, expectations hypothesis and Kalman filter are the most popular keywords, respectively, other than yield curve and term structure. The current trend in the search area has been examining the effects of unconventional monetary policy involving zero lower bound and asset purchase programs on the long-term interest rates after the global financial crisis. The literature analysis of yield curve provides insight to investors and policymakers who want to construe long-term interest rates.

**Keywords:** *Bibliometric Analysis, Yield Curve, Term Structure of Interest Rates, Web of Science, VOSviewer*

**ÖZET**

Analistler ve arařtırmacılar, ekonomik büyümeyi, enflasyonu, gelecekteki ekonomik faaliyetleri ve durgunlukları tahmin etmek için faiz oranlarının vade yapısı olarak adlandırılan uzun vadeli ve kısa vadeli tahvil getirileri arasındaki farkı kullandılar. Vade yapısının tahmin yapmaktaki gücü, birçok arařtırmanın motivasyonu olmuřtur. Çalışmanın amacı, faiz oranlarının vade yapısı ve getiri eğrileriyle ilgili literatürdeki güncel arařtırma eğilimlerini tespit etmek ve kantitatif istatistikler sağlamaktır. Alandaki literatürü incelemek için bibliyometrik analiz yöntemi kullanılmıřtır. Bibliyometrik bir analiz, arařtırma alanındaki mevcut eğilimleri belirlemeyi sağlar. Çalışmada kullanılan veriler, ISI Web of Science (WOS) veri tabanından toplanmıřtır. Veri tabanında, getiri eğrisi ve faiz oranlarının vade yapısı konusunda, 2001 – 2020 yılları arasında dergilerde İngilizce olarak yayınlanmış, 1.196 adet arařtırma makalesi belirlenmiřtir. Atıf analizi, ortak atıf analizi,

anahtar kelime analizi ve ortak yazar analizi kullanılarak, literatürün bibliyometrik analizi gerçekleştirilmiştir. VOSviewer adlı yazılım yardımıyla bibliyometrik ilişki ve ağlar görselleştirilmiştir. Yıllara, yazarlara, dergilere, anahtar kelimelere, ülkelere ve kuruluşlara göre yayınların verileri kullanılarak konu üzerine yayın eğilimi analiz edilmiştir. Veri setinde getiri eğrisi konusunda toplam 1.196 adet makale yayınlayan 2.507 yazar bulunmaktadır. En üretken araştırmacı, alanda 17 makale yayınlayan, San Francisco (Fed) Merkez Bankası'ndan Rudebusch'tur. Bu 17 makaleye toplam 1.273 atıf yapılmıştır. Ancak en çok atıf yapılan makaleler, 527 atıfla Kuttner (2001), ardından 506 atıfla Diebold ve Li (2006) ve 485 atıfla Ang ve Piazzesi (2003) tarafından yazılmıştır. Vade yapısı ile ilgili yayınlar, sırasıyla en çok ABD, İngiltere ve Almanya'dan gelmektedir. En çok yayınlayan dergi, Journal of Banking & Finance'dir. Anahtar kelime analizi; getiri eğrisi ve vade yapısı dışında para politikası, tahmin etme, faiz oranları, Beklentiler Hipotezi ve Kalman filtresinin sırasıyla en popüler anahtar kelimeler olduğunu göstermektedir. Araştırma alanındaki mevcut trend, küresel finansal kriz sonrası sıfır alt sınırındaki faiz oranlarının ve varlık alım programlarının uygulandığı geleneksel olmayan para politikalarının uzun vadeli faiz oranları üzerindeki etkilerini incelemektir. Getiri eğrisinin literatür analizi, uzun vadeli faiz oranlarını yorumlamak isteyen yatırımcılara ve politika yapıcılara fikir vermektedir.

**Anahtar Kelimeler:** *Bibliyometrik Analiz, Getiri Eğrisi, Faiz Oranlarının Vade Yapısı, Web of Science, VOSviewer.*

**PROMISING DOMESTIC RAW MATERIALS FOR USE IN MEAT PRODUCTS****Oleg GALENKO**National University of Food Technology, Department of Meat Technology and Meat Products,  
Kyiv, Ukraine**Vladislav SHAPOVALOV**National University of Food Technology, Department of Meat Technology and Meat Products,  
Kyiv, Ukraine**ABSTRACT**

Introduction. A promising raw material for the production of meat products is hemp seeds - one of the best sources of easily digestible vegetable protein; phytonutrients that maintain the normal condition of tissues, blood vessels, skin cells and internal organs; polyunsaturated fatty acids; vitamins A, D and E and group B, calcium, sodium, iron and dietary fiber. Materials and methods. The aim of the work was to study the developed meat products with ingredients with a high content of macronutrients. Based on the literature review, for the development of a new product, flour and oil from industrial hemp seeds were selected for further research. Results. Today, special technical varieties of cannabis are grown and used all over the world, which do not contain any psychoactive substances. Hemp oil is usually made by first cold pressing from the seeds of non-alkaloid hemp. Hemp oil has the following composition: Omega-6 (linoleic acid) - 40-60%, Omega-3 (alpha-linolenic acid) - 20-25%, which are in an ideal ratio of 3: 1, recommended by WHO experts; Omega-9 (oleic acid) - 11%, palmitic acid - 6%, stearic acid - 3%, bactericidal substances, glycerides, amino acids, trace elements, vitamins A, B1, B2, B3, B6, D and E, antioxidants, proteins, carotene, phytosterols, phospholipids, minerals, including K (Potassium), P (Phosphorus), Ca (Calcium), Mg (Magnesium), Fe (Iron), Mn (Manganese), Na (Sodium), Cu (Copper), Zn (Zinc), S (Sulfur) and others. Hemp oil is high in chlorophyll, which is a natural antioxidant. Hemp flour contains 20 amino acids, vitamins E, C, D and K, B vitamins (B1, B2, B3, B4 (choline), B5, B6, B8 (inositol), B7 (biotin), B9 and B12), and also carotenoids (precursors of vitamin A), macro- and microelements (iron, magnesium, potassium, phosphorus, calcium, manganese, zinc, sulfur, chlorine, etc.) and does not contain gluten. The Department of Meat and Meat Products Technology of NUHT has developed meat pate products using flour and oil from industrial hemp grain. Conducted organoleptic and physicochemical studies have shown the excellent quality of the developed products. Conclusion. Given the above data, further study of the safety of development and industrial testing of these foods based on meat of high nutritional value with the addition of flour and oil from industrial hemp seeds is planned.

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**Keywords:** *Seed, vegetable protein, meat, flour, oil, micronutrients.*

**THE EFFECT OF ENCAPSULATION ON SOLUBILITY AND THE BITTER TASTE OF WHITE  
TURMERIC EXTRACT**

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**ABSTRACT**

White tumeric is a functional plant and can be easily found in Indonesia, especially in Southeast Sulawesi. Functionality of White tumeric is mainly due to its antioxidant properties. However, its application as a food ingredients is limited because white tumeric extract has a strong bitter taste. On this research, encapsulation was used not only to protect the antioxidant compounds of White tumeric extract but also to reduce the bitter taste. Encapsulation was done using tapioca flour and alginate as the main outer materials. The resulted encapsulation were tested for it's color, aroma, assessed by untrained panelists using categorical scale. The bitter taste decreased significantly with encapsulation relative to white tumeric extract without encapsulation. The degree of solubility was strongly influenced by the ratio of tapioca starch and alginate.

**Keywords:** *Encapsulatin, Solubility, White Tumeric.*



**COMPARATIVE ANALYSIS OF BMPR-1B/FecB GENE IN THREE BULGARIAN SHEEP BREEDS**

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**ABSTRACT**

The purpose of this investigation was to determine genetic diversity of ovine BMPR-1B/FecB gene in 90 ewes from three Bulgarian sheep breeds with different productive directions – 30 animals from Synthetic population Bulgarian milk sheep breed, 30 animals from local Pleven Blackhead sheep breed and 30 animals from Karnobat Merino sheep breed. Blood samples were collected and genomic DNA was extracted using commercial kit for manual DNA purification from whole blood. After PCR amplification of FecB gene with specific set of primers PCR fragments with expected length of 190 bp were obtained. Genotypes were defined by restriction fragment length polymorphism (RFLP) method with restriction endonuclease *AvaII*. The locus of BMPR-1B gene was found to be monomorphic in all studied animals. Only wild allele “+” was found and only wild genotype “++”, respectively. According to the results the investigated individuals were non-carriers of Botoola mutation.

**Keywords:** *Sheep, PCR, RFLP, BMPR-1B/FecB, polymorphism.*

**INDICATORS OF SPERMATOGENESIS IN THE LAKE FROG (*PELOPHYLAX RIDIBUNDUS*) IN THE ZONE OF THE INFLUENCE OF BURSHTYN THERMAL POWER PLANT**

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**ABSTRACT**

The negative effects of adverse environmental factors on spermatogenesis are well known. Therefore, the priority task is the bioindication of environmental pollution by reproductive toxicants. The purpose of the work was to study the indicators of spermatogenesis in the lake frog (*Pelophylax ridibundus* Pall.) in the zone of the influence of emissions from the Burshtyn thermal power plant. Urinal sperm was taken from male frogs, collected near the individual building of Burshtyn and the industrial site of Burshtyn thermal power plant. Frogs were injected intraperitoneally with surfagon at a concentration of 1.2 µg/gram body weight. Such parameters as: spermatozoa concentration in sperm sample; the total amount of actively mobile forms and the percentage of spermatozoa with progressive motion was determined by calculations in the hemocytometer. The number of live spermatozoa was determined by staining for Bloom. Although the average body weight of amphibians from the studied areas did not significantly differ from the control, however, the weight of the testes, as well as its relation to body weight and the volume of ejaculate demonstrated a tendency to decrease in proportion to the gradient of technogenic press. Decrease in the diameter of the seminiferous tubules were also present ( $p < 0.05$ ) in the animal exposure to pollutants. Near the individual building of the city and the industrial site of the thermal power plant the sperm concentration in the sperm sample decreases significantly by 2.4 and 3.3 times compared to control. The number of dead spermatozoa increases to 25.69% and 31.20%, respectively, but the number of living forms decreases. At the same time, males from polluted areas had more spermatozoa with pathological changes of the head, the main and intermediate parts of the flagellum. Under technogenic press, the total number of motile spermatozoa is significantly reduced to 67.12%, including spermatozoa with progressive movement to 47.30%. The results of this study indicate the emissions from the Burshtyn thermal power plant has an expressive reprotoxic effect that is manifested by depressive changes in spermatogenesis. The reproductive system of the lake frog is sensitive to environmental pollution. Spermogram parameters are informative convenient biomarkers and can be used for monitoring technogenically transformed territories.

**Keywords:** *Amphibians, Spermatogenesis, Anthropogenic pollution, Bioindication.*

**FOOD SECURITY INDEX FOR ECONOMIC COMMUNITY OF WEST-AFRICAN STATES  
(ECOWAS)**

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**ABSTRACT**

In this article attempt is made to develop a composite food security index for some selected countries of the Economic Community of West-African States (ECOWAS), *i. g.* Nigeria, Niger, Benin, and Ghana. The study also aims to study the stability property of the indicators of composite food security index.

For constructing a composite food security index for ECOWAS, one can use the basic methodology already developed by IFAD but in a modified form. This study is also based on IFAD methodology but with one more additional variable that is political stability index and assigned weight on the basis of Principal Component Analysis (PCA).

This composite index is an improvement over all the other food security index developed by others eminent economists and institutions from time to time. This index consists of six indicators such as food availability, food production, self-sufficiency of food, inverse relative price index, child survival index, and political stability to construct the composite food security index of ECOWAS. Political stability is an additional indicator in the index of ECOWAS. With the help of this index, the trends, stability and situation of food security index in region are discussed and analyzed from 2001 to 2018. After careful analysis of composite food security index of ECOWAS, one can find out that it has quite impressive and improving gradually.

This study provides strong suggestion about how these five indicators of composite food security index provide an overview for the selected countries to secure their level of food security in their respective country.

After the careful analysis of the collected data, it can be concluded that the composite food security index playing an important role to understand that whether food security index in improving in respective countries or not.

**Keywords:** *Composite food security index, ECOWAS, Stability, Trends, Political stability.*

JEL: O10, O11, O13

**THE NUTRITIONAL VALUE STUDY OF ACIDOPHILIC-WHEY ICE CREAM****ИЗУЧЕНИЕ ПИЩЕВОЙ ЦЕННОСТИ МОРОЖЕНОГО АЦИДОФИЛЬНО-СЫВОРОТОЧНОГО****Galina POLISCHUK****Tetiana OSMAK****Oksana BASS****Artur MYKHALEVYCH***Educational and Research Institute of Food Technology, National University of Food Technologies,  
Kyiv, Ukraine***ABSTRACT**

The dietary structure of most people is extremely inconsistent with modern principles of rational nutrition and practical dietetics. Consumer rations often have an excess of foods with a high carbohydrate content and very little of the main sources of complete protein, dietary fiber and micronutrients. The scientific studies results of the actual nutritional status of the population in different regions indicate that the nutritional status of the child and adult population is seriously impaired. The reason for such a violation is the deficiency of complete (animal) proteins, polyunsaturated fatty acids, vitamins, macro- and microelements, as well as dietary fiber. Conversely, there is an excessive consumption of animal fats and easily digestible carbohydrates. By developing and improving the composition of products that increase the body's resistance in an unfavorable environment, including dairy, it is quite possible to improve the quality of human life, as well as to ensure the body's adaptation to unfavorable living and working conditions. Milk proteins, especially whey proteins, in terms of their amino acid composition, are among the most valuable proteins of animal origin. Based on the results of previous studies, new types of acidophilic-whey ice cream, enriched with protein, have been developed. Pectin-containing vegetable purees were also added to ice cream. The amino acid composition was investigated using the LC2000 amino acid analyzer (Biotronik, Germany), and with the help of the «EXPERT 3L» express analyzer, the mineral composition of new types of ice cream, enriched with protein. Based on the daily human need for these substances, it was concluded that the biological value of ice cream, enriched with a complex of proteins, increased by 15% in comparison with the control. It was also found that the introduction of pectin-containing raw materials into the composition of acidophilic-whey ice cream with protein concentrate provides a ratio of minerals that is close to the optimal for all age categories. It is especially important, that providing of the ratio calcium: magnesium is optimal for the 18-60 age group.

**Keywords:** *Biological value, Ice cream, Milk whey, Milk protein.*

**АННОТАЦИЯ**

Структура питания большинства людей крайне не соответствует современным принципам рационального питания и практической диетологии. В рационах питания потребителей часто наблюдается избыток продуктов с повышенным содержанием углеводов и совсем мало – основных источников полноценного белка, пищевых волокон и микронутриентов. Результаты научных исследований фактического состояния питания населения в разных регионах свидетельствуют, что пищевой статус детского и взрослого населения серьезно нарушен. Причиной такого нарушения является дефицит полноценных (животных) белков, полиненасыщенных жирных кислот, витаминов, макро- и микроэлементов, а также пищевых волокон. И, наоборот, наблюдается избыточное потребление животных жиров и легкоусвояемых углеводов. Разрабатывая и совершенствуя состав продуктов, которые повышают резистентность организма в условиях неблагоприятной окружающей среды, в том числе и молочных, вполне можно улучшить качество жизни человека, а также обеспечить адаптацию организма к неблагоприятным условиям жизни и труда. Молочные белки, особенно сывороточные, по своему аминокислотному составу относятся к наиболее ценным белкам животного происхождения. По результатам предыдущих исследований были

разработаны новые виды обогащенного белком ацидофильно-сывороточного мороженого. В мороженое также вносили пектинсодержащие овощные пюре. С помощью аминокислотного анализатора LC2000 (Biotronik, Германия) был исследован аминокислотный состав, а с помощью экспресс-анализатора «EXPERT 3L» – минеральный состав новых видов обогащенного белком мороженого. Исходя из суточной потребности человека в данных веществах, был сделан вывод о повышении биологической ценности обогащенного комплексом белков мороженого на 15%, в сравнении с контролем. Также установлено, что внесение пектинсодержащего сырья в состав ацидофильно-сывороточного мороженого с концентратом белка обеспечивает соотношение минеральных веществ, которое приближается к оптимальному для всех возрастных категорий. Особенно важным является обеспечение соотношения кальций: магний, которое оптимально для возрастной группы от 18 до 60 лет.

**Ключевые слова:** биологическая ценность, мороженое, молочная сыворотка, молочный белок

## **GELLING PROPERTIES OF COMPOSITIONS CONTAINING PROTEIN**

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### **ABSTRACT**

Animal origin products are the main and usual sources of complete protein for humans. Global forecasts for meeting the needs of a growing population show a significant increase in demand for protein. Accordingly, the volume of meat production also needs to be increased. But raising animals have a negative impact on the environment, and there is also an irrational consumption of feed per unit of obtained protein. Therefore, this issue should be addressed through a more rational use of food waste and plant resources (to obtain additional sources of protein).

The protein preparations obtained in this way differ in amino acid composition and it is not always possible to ensure balanced of the protein component. Based on this, protein preparations should be used in the form of binary and multicomponent mixtures in certain ratios of components. This will provide mutual enrichment their amino acid composition and modification of functional and technological properties.

We conducted research on the creation of functional compositions containing protein based on plant and animal origin protein preparations with a mixture of hydrocolloids in different ratios. As the main component for the creation of compositions containing protein was selected a complex of animal and plant origin proteins, namely collagen-containing protein preparation, soy isolate, whey isolate, egg albumin.

The combination of protein preparations complex (balanced in amino acid profile) with high-molecular components of hydrocarbon nature (hydrocolloids) in appropriate conditions and ratios is an economically and functionally advantageous strategy. For this purpose, k-carrageenan, xanthan gum and locust bean gum were used in the formulations of the compositions containing protein.

Now in the world science the direction of nanotechnologies in food products is rapidly developing. After analyzing the research of domestic and foreign scientists, we can say that nanoparticles directly interact with food components and affect on the absorption and assimilation of nutrients through the physicochemical modifications.

The aim of our research was determined the quality of the developed compositions and to establish a rational ratio of protein and hydrocolloid components. To do this, we conducted a study of the low gelation concentration of compositions containing protein. In parallel with this study, we determined the effect of nanocomposite (pyrogenic silica brand Aerosil A-300) on the change in the parameter of low gelation concentration of the developed compositions.

The combination of the protein components with high-molecular preparations of hydrocarbon nature (hydrocolloids) allowed to achieve a rational manifestation of gel-forming properties, which consisted in the formation of stable gel systems with high stress limits. It is established that the introduction of the nanocomposite leads to the modification strength of the gel systems, formed by the experimental samples of composition containing protein, and obtain more stable gels.

Confirmation of synergistic interactions between proteins and polysaccharides in aqueous systems allows us to speak about the prospects of further research, which consists in studying the behavior of these compositions as a part of various colloidal structures.

**Keywords:** *Proteins, Hydrocolloids, Compositions, Gels, Gelling Properties.*

**THE MECHANISMS OF FORMATION OF ALIMENTARY MOTIVATION IN DIFFERENT  
CONDITIONS OF THE ORGANISM**

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**ABSTRACT**

The role of various parts of the hypothalamus in the mechanisms of formation and realization of various dominant motivations has been identified in a few studies. However, the role of endogenous opiates and neurotransmitters in specific molecular cellular mechanisms of alimentary motivation remains insufficiently studied to date.

The aim of this investigation was to study the effect of microionophoretically supplied  $\beta$ -endorphin and norepinephrine on the impulse activity of neurons in the somatosensory zone of the cerebral cortex and the lateral hypothalamus.

The experiments were carried out on chinchilla rabbits. The registration of the impulse activity of neurons and microionophoretic introduction of the neuropeptide and neurotransmitter into the perineuronal space were carried out by generally accepted methods.

It was found that neurons of the somatosensory cortex of the brain are widely involved in food motivational excitation, caused, respectively, by stimulation of the "hunger centers" of the hypothalamus.

When study the impulse activity of neurons in the somatosensory cortex and the lateral hypothalamus in response to the application of  $\beta$ -endorphin and norepinephrine into the perineuronal space, it was found that the activity of neurons changes sharply. This was expressed by a change in the frequency of discharges, the nature of the reaction, regulation of the impulse current, namely, a decrease in unevenness, the dominance of shorter inter-impulse intervals.

Thus, the obtained data allow us to assume that, within one dominant motivation, hypothalamic-cortical functional relationships are built based on adrenergic and peptidergic processes.

**Keywords:** *Hypothalamus, Alimentary Motivation, Endogenous Opiates.*

**PURINE AND LIPID METABOLISM PRODUCTS AS ONE OF THE IMPORTANT FACTORS IN ARTERIAL HYPERTENSION TREATMENT**

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**ABSTRACT**

The metabolic disorders in the patients with arterial hypertension cause progress of ischaemic heart disease, atherosclerosis and the disorders of purine metabolism. In this category of patient progress the cardiovascular disease earlier. When the disorders of purine and lipid metabolisms are together, this cause progress of atherosclerosis with the formation of immune complexes and the injury of endothelial cells. 65 patient with arterial hypertension was examined. The disorders of purine metabolism based on the criterion of SL Wallace 1977. The middle age limit of the patients was 55, 15+0, 01 years, duration of illness was 7, 15+0, 4 years (from 2 till 13 years). The arterial syndrome was evaluated in all of the patients, therewithal, spectrum of lipids, indication of purin metabolism were examined with the determination of the levels of cholesterol, triglycerides, low and high density lipoproteins, uric acid in the venous blood (hungry). The observation group consisted of 20 practical healthy persons. The statistical analysis were carried out with the method of variation in automatic regime. In all of the patients was the level of uric acid high (8.2+0.5 mg/dl), the level of general cholesterol (5.7 +\_1.1 mmol/l, p<0.05), triglycerides (3.1 +\_ 0.8 mmol/l, p<0.05). The level of high density lipoproteins had declining tendency (0.9+\_ 1.1 mmol/l, p<0.05). The level of low density lipoproteins is increased by 20%. Atherogenic index was higher 2 times in the study group as in the observation group. Finally, the disorders of lipid metabolisms in the patients with arterial hypertension are characterized by the high concentration of triglycerides and uric acid and lower concentration of HDLP (high density lipoproteins).

**Key words:** *Arterial Hypertension, Uric Acid, Atherogenic Index.*



## IMPACT OF HOMOCYSTEINE ON OXIDATIVE STRESS IN COOLEY'S ANEMIA

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### ABSTRACT

In recent years, hyperhomocysteinemia has attracted more and more attention from doctors and researchers, since it is associated with many human diseases, including anemia.

Hereditary hemolytic anemia (HHA) is a rare disease characterized by premature red blood cell (RBC) destruction and anemia due to intrinsic RBC defects. Three main etiologies causing HHA are RBC membrane disorders, hemoglobin disorders, and RBC enzyme disorders.

$\beta$ -thalassemias (Cooley's anemias) are hereditary hemoglobin diseases that are transmitted in autosomal recessive manner and are associated with a decrease in  $\beta^+$  or complete absence ( $\beta^0$ ) of synthesis of globin chains. Cooley's anemia results from synthetic defect of  $\beta$ -globin chain, as a result of mutation of  $\beta$ -gene located on chromosome 11 which controls the production of the hemoglobin beta subunit.

There are 10 % adult carriers of thalassemia disease in Azerbaijan and therefore the study of this pathology remains relevant nowadays. It is known that  $\beta$ -thalassemia is characterized by oxidative stress, which is a consequence of iron overload due to frequent blood transfusions that constitute the only treatment for the disease. Production of free radicals leads to nitrosative and carbonylated stress.

The purpose of this study was to study the level of nitrosative and carbonylated stress status in serum of patients with Cooley's anemia and role of homocysteine level in this process.

The study was conducted over the blood of 41 patients with  $\beta^0$ -thalassemia after splenectomy and 20 healthy persons in control group. Levels of biochemical parameters (hemoglobin, free and bound bilirubin, total protein and serum iron) were determined using the "Diasys" kits. The nitrotyrosine concentration was measured with ELISA method with the help of commercial kit "Hycult Biotech", while the level of nitrogen oxide was measured with commercial kit from "R & D Systems". The status of carbonylated proteins was determined with commercial kit "Carbonyl Proteine Immunodiagnostik" (Biotech). The level of homocysteine was identified with Immulite 2000 System.

Statistical analysis was performed with Mann-Whitney test. Statistical significance was determined at  $p < 0,05$ . All studies were conducted with informed consent of patients and complied with ethical norms of the Helsinki Declaration (2013).

The examination of homocysteine concentration revealed an increase of up to  $23,5 \pm 12,7$   $\mu\text{mol} / \text{l}$  (against the norm at  $16,9 \pm 5,3$   $\mu\text{mol} / \text{l}$ ). There is also a sharp increase in the level of serum iron and ferritin by 1,9 times and 3,25 times respectively. Besides, the concentration of NO in patients increased ( $p < 0,05$ ). A significant increase in the level of nitrotyrosine was found to be  $75,1 \pm 1,7$   $\mu\text{mol} / \text{l}$  against the control of  $0,7 \pm 0,03$   $\mu\text{mol} / \text{l}$ . The study of concentration of carbonylated proteins revealed an increase by 2,7 times compared to control group.

Homocysteine, due to the presence of the SH-group in its composition, has a prooxidant activity: at a high level of homocysteine in blood, it undergoes oxidation, during which free radicals are formed. Homocysteine reduces the expression of glutathione peroxidase in endothelial cells, which also enhances lipid peroxidation by reactive oxygen forms released during oxidation. Homocysteine also disrupts normal production of NO by endothelial cells,

reduces the bioavailability of NO, since the synthesis of the latter decreases. Increase in lipid peroxidation with the participation of homocysteine leads both to a decrease in NO production by NO-synthase enzyme and to a direct degradation of NO. In addition, hyperhomocysteinemia leads to a so-called vicious circle, namely, a decrease in proteolysis with a simultaneous accumulation of oxidatively damaged proteins. Hyperhomocysteinemia of varying severity leads to the accumulation of products of oxidative modification of proteins and increases the intensity of the processes of protein carbonylation. At the same time, homocysteine, activating free radical processes, increases the level of nitrotyrosine in blood serum.

**Keywords:** *Homocysteine, Cooley's anemia, Carbonylated Proteins, Nitrotyrosine, Nitric Oxide.*

**THE PRIMARY IMPORTANCE OF MODERN AUTOMATIC HEMATOLOGICAL****ANALYZERS****ISKENDEROVA Z.Sh.****AKHUNDOV I.A.***Azerbaijan Medical University, Odlar Yurdu University*

The circulatory system supplies all organs with oxygen and trace elements, maintains a constant body temperature and protects the body from various diseases. Therefore, it is necessary to regularly monitor her condition and conduct a general blood test. The CBC is an important parameter in the examination of a patient with any pathology. A clinical blood test is prescribed to patients in order to detect inflammatory, infectious and other pathological phenomena (in viral diseases, malignant neoplasms). On this basis, the doctor prescribes effective targeted treatment.

The composition of the blood includes plasma and shaped elements-white blood cells, red blood cells and platelets, the ratio and number of which can give the necessary information about the functioning as a whole. That is why in order to make an accurate diagnosis of the patient, the doctor first sends him to a general blood test, which is an integral part of any examination.

Currently, all modern clinics use automatic hematological analyzers to determine the total blood count, which are capable of performing from 100 to 120 studies per hour. They provide highly accurate results and thus allow you to quickly diagnose a particular disease, as well as prescribe the correct treatment regimen. The results of the analysis are printed on special forms, next to which you can see the normative (reference) indicators, that is, the patient can clearly see the deviation from the norm of a particular indicator.

On average, all hematological analyzers include more than 20 indicators, that is, this laboratory test determines the counting of all types of blood (red blood cells, white blood cells, platelets), measuring the level of hemoglobin, the ratio of cell mass to plasma (hematocrit). Important indicators are:

1. **Red blood cell indicators** - RBC, HGB. HCT. MCV, RDW. MCH, MCHC;
2. **White blood cell counts** - WBC, LYM, GRA, MON, NEU. EOS, BAS, MID (indicator of the content of monocytes, eosinophils and basophils);
3. **Platelet counts** - PLT, PCT, MPV. PDW. P-LCR

The patient's blood is taken from the finger, the vein on an empty stomach. The blood is collected in special test tubes with purple lids, inside which the anticoagulant EDTA is contained.

Thus, the use of automatic hematological analyzers has a number of advantages:

1. Thanks to the CBC, the doctor can give a complete picture of the patient's condition;
2. provides fast and accurate count of blood cells (red blood cells, white blood cells, platelets);
3. Identification and differentiation of different forms of anemia;
4. Determination of the presence of inflammatory processes;
5. Making an accurate diagnosis against the background of CBC and choosing the right adequate treatment for the pathological condition.

**GLOBAL WARMING OF TODAY'S CLIMATE AND MEASURES TO PREVENT ITS CHANGE****ГЛОБАЛЬНОЕ ПОТЕПЛЕНИЕ СОВРЕМЕННОГО КЛИМАТА И МЕРЫ БОРЬБЫ С ЕГО ИЗМЕНЕНИЯМИ****Jafarova Khatira HASHIM****Tagiyeva Flora SHURA***Azerbaijan Medical University, Faculty of Public Health, Department of Epidemiology, Baku, Azerbaijan***ABSTRACT**

Global warming is an increase in the average temperature of the Earth's climate system that has been occurring for over a century, mainly due to human activity (anthropogenic). Coronavirus has distracted the world from the climate crisis. Climate change is one of the main challenges today. For example, unpredictable weather conditions that threaten food production, sea level rise that increases the risk of natural disasters are consequences of climate change and are global in nature and unprecedented in scale. Decisive action must be taken today. A century and a half of industrialization as well as deforestation and certain agricultural practices have led to an increase in greenhouse gas emissions and an increase in global average temperature. One of the major greenhouse gases in the Earth's atmosphere is carbon dioxide, the product of burning fossil fuels. Between 1880 and 2012, global average temperature increased by 0.85 °C.

The oceans have warmed, the volume of ice and snow have decreased and sea levels have risen. Between 1901 and 2010, the world average sea level rose by 19 centimetres as a result of warming which led to melting of the ice. Since 1979, the ice cover of the Arctic Ocean has declined by 0.45 to 0.51 million km<sup>2</sup> per decade. Given the existing concentration of greenhouse gases and their continued emissions it is likely that by the end of this century the average global temperature will rise by 1-2 °C compared with the level of 1990 and by 1.5-2,5 °C compared to the pre-industrial era. The warming of the oceans and the melting of the ice will continue. The world average sea level is estimated to rise by 24 to 30 centimetres by 2065 and by 40 to 63 centimetres by 2100 compared with 1986 to 2005. Most of the effects of climate change will persist for centuries even if greenhouse gas emissions are completely eliminated. The exceedance of the thresholds leading to irreversible changes in our planet's ecosystems and climate system has already occurred. As a result of warming and drought overall ecological situation in ecosystems such as the Amazonian rainforests and the Arctic tundra is reaching its tipping point. Mountain glaciers are shrinking at an alarming rate and future generations will face the consequences of reduced availability of drinking water in the dry months. Global warming contributes to the development of infectious and invasive human diseases worldwide thereby exacerbating health problems. The spread of vector-borne diseases such as malaria, West Nile fever, Dengue fever, yellow fever, Lyme disease in Europe, tick-borne rickettsiosis, tick-borne encephalitis is possible. The incidence of intestinal infectious diseases depends on the quality of water and the degree of contamination of food products. Diseases such as cholera, lambliosis, cryptosporidiosis and amebiasis are a very acute problem for the world population. The fever has been a risk factor in about 30% of salmonella cases. Rising air temperatures can increase asthma. Allergic rhinitis prolongs the suffering of allergy sufferers by extending the pollen season. Humanity is also threatened by the airborne environmental problem of the depletion of the ozone layer, including the appearance of ozone holes above the poles, with the excessive use of freons in production and everyday life.

International conferences addressing global warming and the impact of climate change on human health are being held to address the anthropogenic causes of climate change as well as possible measures to prevent such changes. The Stockholm Conference, which was held from 5 to 16 June 1972 in Stockholm was the first world symposium on which the environmental problem was raised at the world level and where for the first time within the framework of international law a document in the field of environmental protection was adopted.

Now, in front of Humanity, serious environmental problems arose, requiring an immediate decision. To combat this threat, prevention measures are needed, including informing the general public,

epidemiological supervision and standardization of data collection method. The development of a reasonable forecast of the consequences of the anthropogenic impact on human health is necessary. The activities carried out must minimize the negative effects of anthropogenic effects in order to protect the environment.

**Keywords:** *Global Warming, Climate Change, Control Measures.*

### **Аннотация**

Глобальное потепление - повышение средней температуры климатической системы Земли, происходящее уже более века, основной причиной чего является человеческая деятельность (антропогенный). Коронавирус отвлек мир от климатического кризиса. Изменение климата является одним из основных современных вызовов. Так, например, непредсказуемость погодных условий, которая ставит под угрозу производство продовольствия, повышение уровня моря, которое увеличивает риск природных катастроф, являются последствиями изменения климата и имеют глобальный характер и беспрецедентные масштабы. Решительные действия необходимо предпринять сегодня.

Полтора столетия индустриализации, а также сплошная вырубка лесов и применение определенных методов ведения сельского хозяйства привели к увеличению выбросов парниковых газов в атмосферу и росту среднемировой температуры. Одним из основных парниковых газов в атмосфере Земли является углекислый газ - продукт сжигания ископаемого топлива. За 1880-2012 годы средняя глобальная температура повысилась на 0,85 °С. Произошло потепление океанов, сократился объем льда и снега и повысился уровень моря. В период 1901–2010 годов среднемировой уровень моря повысился на 19 см. в результате потепления, которое привело к таянию льдов. Начиная с 1979 года объем ледового покрова в Арктическом океане сокращался в каждом десятилетии на 0,45–0,51 млн кв. км. С учетом существующей концентрации парниковых газов и их продолжающихся выбросов весьма вероятно, что к концу этого столетия средняя глобальная температура повысится на 1-2 °С по сравнению с уровнем 1990 года и на 1,5–2,5 °С по сравнению с доиндустриальной эпохой. Продолжится потепление океанов и таяние льдов. По оценкам, к 2065 году среднемировой уровень моря повысится на 24–30 см, а к 2100 году — на 40–63 см по сравнению с уровнем 1986–2005 годов. Большинство последствий изменения климата будет сохраняться на протяжении нескольких столетий, даже если выбросы парниковых газов полностью прекратятся. Превышение пороговых показателей, ведущее к необратимым изменениям в экосистемах и климатической системе нашей планеты, уже произошло. В результате потепления и засух ситуация в таких экосистемах, как тропические леса Амазонии и арктическая тундра, достигает своей критической точки. Пугающими темпами сокращается объем горных ледников, и многие поколения в будущем столкнутся с такими последствиями этого явления, как сокращение запасов питьевой воды в засушливые месяцы. Глобальное потепление климата способствует развитию инфекционных и инвазионных заболеваний человека во всем мире, тем самым усугубляя проблемы в области здравоохранения. Возможно распространение трансмиссивных заболеваний как малярия, лихорадка западного Нила, лихорадка Денге, желтая лихорадка болезни Лайма в Европе, клещевого риккетсиоза, клещевого энцефалита. Уровень заболеваемости кишечными инфекционными заболеваниями зависит от качества воды и степени инфицированности продовольственных продуктов. Весьма острой проблемой являются заболевания населения холерой, лямблиозом, криптоспориозом, амебиазом. Повышенная температура явилась фактором риска приблизительно в 30% случаев сальмонеллёзов. Рост температуры воздуха может увеличить заболеваемость астмой. Аллергический ринит продлевает мучения

аллергиков, удлиняя сезон распространения цветочной пыльцы. Человечеству угрожает и воздушная экологическая проблема истощения озонового слоя, в том числе появление озоновых дыр над полюсами, с чрезмерным применением фреонов в производстве и быту.

Для устранения антропогенных причин изменения климата, а также выработки возможных мер борьбы с такими изменениями проводятся международные конференции, затрагивающие вопросы глобального потепления климата и влияния его здоровье человека. Стокгольмская конференция, которая прошла с 5 по 16 июня 1972 год в Стокгольме был первый мировой симпозиум, на котором была затронута проблема окружающей среды на мировом уровне и где впервые в рамках международного права был принят документ в области охраны окружающей среды.

Сейчас перед человечеством встали серьезные экологические проблемы, требующие незамедлительного решения. Для борьбы с этой угрозой необходимы меры профилактики, включая информирование широкой общественности, эпидемиологический надзор и стандартизация метода сбора данных. Необходима разработка обоснованного прогноза последствий антропогенного воздействия на здоровье человека. Проводимые мероприятия должны свести к минимуму негативные влияния антропогенного воздействия с целью охраны окружающей среды.

**Ключевые слова:** глобальное потепление, изменение климата, меры борьбы.

A NOVEL LOOK AT ANTIBIOTIC THERAPY AND VACCINATION SUSPEND IN  
COVID-19 ERA

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**ABSTRACT**

In this work, we tried to summarize modern views on the situation with COVID-19. The scientists claim that overlapping with bacterial infection mainly occurs during hospitalization, and the vast majority of infection has been represented by strain *Acinetobacter baumannii*; and even after all the percentage of co-infection in COVID-19 is very low, for this reason, the uncontrolled use of antibiotics for COVID-19 treatment is unjustified. The widespread use of the same antimicrobial drugs both for the therapy and/or for the purpose of public places sanitation leads to the loss of the sensitivity to antibiotics. We seem to be dealing with antibiotic resistance, which leads to longer hospital stays, higher mortality rates and a significant economic burden. Virus also loses or changes sites responsible for antibody affinity that leads to its escape from the immune response. Thus, multiple mutations of the COVID-19 were revealed in the receptor-binding domain, in the N-terminal end, the sites responsible for binding the virus with antibodies and its neutralization. The main reason for the suspension and pausing the rollout of Johnson & Johnson's or AstraZeneca vaccination in many countries seems to be an increase in blood clotting in those who have been vaccinated, which is observed not only in the population over 60. In this paper, we have also summarized the main myths regarding the COVID-19 and tried to provide sound advice on how to protect yourself from COVID infection.

**Keywords:** *vaccination suspend, SARS-CoV-2, chloroquine, co-infection, COVID-19, mutation, mythbusters.*

CHARACTERIZATION OF CLAD AND G-CLAD HELICES  
IN MINKOWSKI 3-SPACE

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**ABSTRACT**

The principal normal and co-Darboux image of a unit speed curve in Minkowski 3-space  $E_1^3$  are discussed. In this study, firstly, the concepts of clad helix and g-clad helix given as a new curve in Euclidean space are introduced in Minkowski 3-space  $E_1^3$  according to their principle normal images lying on the pseudo sphere or the pseudo hyperbolic space. If the principle normal image of a unit speed curve lying on the pseudo sphere or the pseudo hyperbolic space is a cylindrical helix, then the curve is expressed by a clad helix, if the principle normal image curve is a slant helix, then the curve is called a g-clad helix. The unit speed curve in Minkowski 3-space  $E_1^3$  is characterized according to whether the co-Darboux image is part of a circle or a cylindrical helix. By using these characterizations and taking into consideration causal character of the curve, we obtain the results that the curve is a cylindrical helix if and only if its evolute is a slant helix and the curve is a slant helix if and only if its involute is a cylindrical helix. In addition, we find that the curve is a slant helix if and only if its evolute is a clad helix and the curve is a clad helix if and only if its involute is a slant helix.

**Keywords:** *Slant helix, clad helix, g-clad helix, evolute and involute of a curve.*



**BOSE-EINSTEIN CONDENSATE DARK MATTER IN VISCOUS  $f(T, B)$  GRAVITY****Alireza AMANI***Department of Physics, Ayatollah Amoli Branch, Islamic Azad University, Amol, Iran***Elham MAHICHI***Department of Physics, Ayatollah Amoli Branch, Islamic Azad University, Amol, Iran***ABSTRACT**

In this paper, dynamics of the viscous  $f(T, B)$  gravity as one of the modified gravity model are studied by FRW background in the presence of dark matter Bose-Einstein Condensation (BEC), in which  $T$  and  $B$  are respectively introduced as the scalar torsion and the boundary term. We obtain the energy-momentum tensor in terms of the effective energy density and the effective pressure inside the universe. After that, the Friedmann equations earn by the Hubble parameter, function  $f(T, B)$ , and viscosity coefficient.

Usually, in the modified gravity models is considered the normal dark matter as the barotropic dark matter, but herein, we consider the BEC regime rather than the normal dark matter with the Equation of State (EoS) as  $P_{dm} \propto \rho_{dm}^2$ , namely, the dark matter pressure is proportional with two-order the dark matter energy density. Therefore, we obtain the corresponding continuity equations with the existence of the universe components as dark energy and dark matter. Afterward, we construct the energy density and the pressure of dark energy in terms of redshift parameter. And then, the cosmological parameters obtain in terms of redshift parameter by introducing a parametrization function and fitting by 51 supernova data with the likelihood analysis. In what follows, we acquire the parameters of energy density, pressure and EoS of dark energy, next, we plot corresponding dynamical graphs proportional to redshift parameter. Afterward, we will represent that the universe is currently undergoing an accelerated expansion phase. At the end, we explore the stability and the instability of the present model with the sound speed parameter.

**Keywords:** *Dark energy, Dark matter, Bose-Einstein condensation,  $f(T, B)$  gravity.*

## **HAFİF ÇELİĞİN ÜRETİM VE BİRLEŞİM YÖNTEMLERİNİN İNCELENMESİ** **INVESTIGATION OF LIGHT STEEL MANUFACTURING AND JOINING METHODS**

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### **ÖZET**

Hafif çelik eleman ve taşıyıcı sistemleri, klasik çelik profil ve yapılarından farklıdır. Malzemelerinde çelik alaşımının ve birleşimlerinde blon, perçin, kaynak gibi birleşim araçlarının kullanımının ortak olması, sistem, davranış ve hesaplamaların aynı olduğu yanılğısı oluşturabilmektedir. Oysa hafif çelik malzemesi, klasik çeliğe göre, soğukta şekil vermeye elverişli daha yumuşak, dolayısıyla karbon oranı daha düşük ve daha az mukavemetli çelik alaşımlarından oluşturulmak durumundadır. Ayrıca profil ve levhalarının kalınlıkları normal çelik yapı elemanlarına göre çok daha incedir. Bu iki nedenden dolayı yüklere karşı dayanımları ve dış ortama karşı dayanıklıkları normal çelikten daha düşüktür. Genelde Dünyada özelde Türkiye’de, en yaygın olarak kullanılan taşıyıcı sistem yapı malzemesi betonarmedir. Yeni gelişmiş ve gelişmekte olan ülkelerde Çelik yapı kavramı, büyük oranda sadece geniş açıklıkları geçmek amacıyla zorunlu olarak kullanılmasından dolayı çatı sistemleri ile sınırlı kalmaktadır. Bunların doğal sonucu olarak klasik çelik hesap ve uygulamaları bile yeterli seviyede yetkin ve yaygın değil iken, hafif çelik için durum daha da sınırlıdır. Bu konudaki eksikleri bir nebze giderebilmek amacıyla bu çalışmada, geniş bir literatür taraması ile hafif çelik yapı sistemlerinin eleman biçim ve özellikleri ile, çelik ve hafif çelik sistemlerin de dahil olduğu takma çıkarma yapılar için çok önemli bir görevi yerine getiren birleşim araç ve elemanları ele alınmıştır.

Betonarme yapılar, monolitik ve bir döküm özelliği nedeniyle önemli hatalar yapılmadığı taktirde taşıyıcı elemanların birbiri ile yardımlaşması ve yükler altındaki davranışı, sisteme gelen zorlamaları, oluşturulma tarzları gereği tölere edebilecek yapıdadır. Çelik ve özellikle hafif çelik sistemler ise, eleman detay ve birleşimlerinin büyük önem taşıdığı, yetkin mühendislik, kalifiye işçilik ve kaliteli malzeme kullanımının kritik önem gösterdiği taşıyıcı sistemlerdir. Bununla birlikte taşıyıcı sistem türü olarak çerçeve ya da kafes tarzında, çubuk elemanlar ile oluşturulmuş klasik karkas- iskelet sisteme sahip olan çelik yapılar ile, aslında çubuk elemanlardan çok, çubuk sistemlerin diyagonal ve kaplamalarla birlikte hareket ettiği ve bir çok dikme ve kirişten müteşekkil panelleri ile yığma sistem davranışına yakın olan hafif çelik yapılar, yapı mekaniği açısından da birbirinden farklıdır. Hafif çelik taşıyıcı sistemler, daha çok geliştirilmiş ahşap panel sistemler ile benzerlik gösterir.

**Anahtar Kelimeler:** *Hafif çelik yapılar, çelik malzemesi, birleşim araçları, yapı mühendisliği.*

### **Abstract**

Light steel element and carrier systems are different from conventional steel profiles and structures. Materials of both structural steel and light steel elements are formed from steel alloys. Connection tools such as bolts, rivets and welding are used in element connections. All these common features, system, behavior and calculations can make the mistake of being the same. However, the light steel material has to be formed from steel alloys that are softer than conventional steel, which are suitable for cold forming, so they have a lower carbon ratio and have less strength. In addition, the thickness of the profiles and plates is much thinner than normal steel construction elements. For these two reasons, their resistance to loads and resistance to external environment are lower than normal steel. Overall in the world and Turkey, the most widely used carrier system building material is reinforced concrete. In newly developed and developing countries, the concept of steel structure is mostly limited to roof systems because it is used only to pass wide openings. As a natural consequence of these, while even classical steel calculations and applications are not sufficiently competent and common, the situation for light steel is even more limited. In this study, in order to eliminate the deficiencies in this matter to some extent, the element form and properties of light steel construction systems were examined with a wide literature review. Combination vehicles and components, which perform a very important task for insertable structures, including steel and light steel systems, are discussed.

Reinforced concrete structures have a monolithic character. The carrier elements cooperate with each other and their behavior under loads is positive. It is in a structure that can tolerate the forces coming to the system unless important mistakes are made. Steel and especially light steel systems are carrier systems where element details and combinations are of great importance, competent engineering, qualified workmanship and the use of quality materials are critical. However, steel structures and light steel structures are different from each other in terms of structural mechanics. Steel structures have a classic carcass-skeleton system formed with rod elements in the form of frame or cage as a type of carrier system. Light steel structures, on the other hand, are close to the masonry system behavior, with panels consisting of many posts and beams, where the bar systems move together with the diagonals and coatings, rather than the bar elements. Light steel carrier systems are more similar to improved wooden panel systems.

Keywords: Light steel structures, steel material, jointing tools, structural engineering

## **BİNA TİPİ YAPILARDA İSTENMEYEN MİMARİ DÜZENSİZLİKLERİN İNCELENMESİ**

### **EXAMINATION OF UNWANTED ARCHITECTURAL IRREGULARITIES IN BUILDING TYPE STRUCTURES**

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#### **ÖZET**

Depreme dayanıklı yapı oluşturmada, öncelikle mimari olarak depreme dayanıklı yapı tasarımı yapmanın büyük önemi vardır. Bu çalışma kapsamında yapılan geniş literatür araştırmalarından, bina yapıları söz konusu olduğunda depreme dayanıklı yapı tasarımı bozan, 20 adet düzensizlik tespit edilmiştir. Bu düzensizliklere istenmeyen düzensizlikler denir ve bir kısmının yapılması hali hazırda inşaat mevzuatları açısından hukuki olarak da yasaktır. Zira genelde yapılar, özelde binalar söz konusu olduğunda, mülkiyet ve yaşama hakkı kapsamında çok önemli yaptırım, zorunluluk ve denetimlerin olması gerekir. Diğer çoğu düzensizlikler, yetkin mimarlık- mühendislik ve kalifiye işçilik hizmetleri ve yüksek kalitede taşıyıcı sistem malzemesi kullanımı ile aşılabılır. Özellikle düşük dereceli deprem bölgelerinde ve sağlam zeminlerde bu tür düzensizliklere sahip yapıları tasarlamak da olasıdır. Ancak genelde yeni gelişmiş ve gelişmekte olan ülkelerin ve özelde Türkiye'nin genel koşullarında ve piyasa şartlarında tüm inşaatların bu niteliklere sahip olduğunu söylemek zordur. O nedenle bu çalışmada incelenen düzensizliklerin denetlenebilir yaptırım ve zorunluluklar ile hukuki mevzuatlara da konu olması gerekir. Mevzuatlarda bu tür binaların yapılması daha yetkin mühendislik- mimarlık hizmetleri, daha yüksek kalitede taşıyıcı malzeme kullanımı ve ya düşük dereceli deprem bölgelerinde ve sağlam zeminlerde olması şartlarına bağlanabilir.

Bu çalışma kapsamında Samsun İli Atakum İlçesinde Mimar Sinan ve Türkîş Semtleri bölgesinde raylı sistem güzergahı ile sahil yolu arasında kalan bölgede 343 adet bina incelenmiş ve her binanın hangi tasarım- uygulama düzensizliklerine sahip olduğu belirlenmiştir. Bu çalışma, 2013 yılında çok geniş bir sahadaki binaların gözle muayene yöntemiyle incelemesi çalışmalarının düzenlenerek literatüre kazandırılması çabasının bir parçasıdır. Aynı sahada benzer çalışmaların 2023 yılında ve sonrasında da her 10 senelik periyotlarda yapılması planlanmaktadır. Böylece senelere göre mimari tasarım tercihlerinin, yapılarda istenmeyen düzensizlikleri oluşturma eğiliminin ve uygulama hatalarının değişimi, gözlenebilecektir. Bu amaçla bu çalışma kapsamında incelenen binaların, yaşlarına göre sınıflandırılarak gözle muayenesi yapılmıştır. Böylece hangi düzensizliklerin hangi oranda binada mevcut olduğu bina yaşlarına göre de çıkarılmıştır. Ayrıca mimari tasarım düzensizlikleri yanında, beton ve donatı ile ilgili en yaygın ve önemli hatalar 4 madde ile özetlenip binalarda ne oranda bu hataların olduğu gösterilmiştir.

Tüm bunlarla birlikte unutulmamalıdır ki çalışma sadece gözle muayene tespitlerine dayanmaktadır. Hata bulunan binaların depreme dayanıksız olduklarını göstermemektedir. Sadece istenmeyen düzensizlikleri oluşturma eğiliminin ve yapıım kusurlarının inşaat sektöründe ne oranda yaygın olduğu tespit edilmeye çalışılmıştır.

**Anahtar Kelimeler:** *Deprem, depreme dayanıklı bina tasarımı, istenmeyen düzensizlikler, mimari tasarım, betonarme bina.*

**ABSTRACT**

In creating an earthquake resistant structure, it is of great importance to design an earthquake resistant building architecturally. From the extensive literature research conducted within the scope of this study, 20 irregularities were identified that disrupt the earthquake-resistant building design when it comes to building structures. These irregularities are called unwanted irregularities and some of them are currently prohibited legally in terms of construction legislation. Because when it comes to structures in general and buildings in particular, there should be very important sanctions, obligations and inspections within the scope of property and right to live. Most other irregularities can be overcome by competent architectural-engineering and skilled craftsmanship services and the use of high-quality structural system materials. It is also possible to design structures with such irregularities, especially in low-grade earthquake zones and solid grounds. But all the construction in usually **newly** developed and developing countries and in particular in Turkey's general conditions and market conditions, it is difficult to say that you have these qualities. Therefore, the irregularities examined in this study should be subject to auditable sanctions and obligations and legal regulations. In the legislation, the construction of such buildings can be attributed to the conditions more competent engineering-architectural services, the use of higher quality carrier materials, or to be low-grade earthquake zones and solid grounds.

Within the scope of this study, 343 buildings in the area between the rail system route and the coastal road in Mimar Sinan and Türkiş locality in Atakum District of Samsun Province were examined and it was determined which design-implementation irregularities each building had. This study is based on the visual inspection of buildings in a wide area in 2013. It is a part of the effort to organize these studies and bring them to the literature. Similar studies in the same field are planned to be carried out in 2023 and every 10-year periods thereafter. Thus, changes in architectural design preferences, tendency to create unwanted irregularities in buildings and application errors can will be observed according to the years. For this purpose, the buildings examined within the scope of this study were classified according to their age and visually inspected. Thus, the rate of irregularities in the buildings were determined according to the age of the buildings. In addition to architectural design irregularities, the most common and important errors related to concrete and reinforcement were summarized with 4 items and the rate of these errors in buildings was shown.

With all these, it should not be forgotten that the study is based only on visual inspection determinations. It does not indicate that the buildings with faults are not resistant to earthquakes. It has been tried to determine to what extent the tendency to create undesirable irregularities and construction defects are common in the construction sector.

**Keywords:** *Earthquake, Earthquake resistant building design, unwanted irregularities, architectural design, Reinforced concrete building*

ASSOCIATED PSEUDO SPHERICAL PARTNER OF A NON-NULL  
LORENTZIAN SPACE CURVE

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**ABSTRACT**

We introduce associated pseudo spherical partner, radial function and radial pseudo spherical function for a non-null Lorentzian space curve which does not lie on the pseudo sphere in Minkowski 3-space. We obtain some relation between Frenet apparatus of a non-null Lorentzian space curve and pseudo spherical Frenet apparatus of the associated pseudo spherical partner of the curve in Minkowski 3-space. Taking into consideration these relations, we find new results for curvature, torsion, radial function and radial pseudo spherical function of a non-null Lorentzian space curve with regard to the following cases; i) the arc length function of a non-null Lorentzian space curve is same as the arc length function of the corresponding associated pseudo spherical partner, ii) there is a constant angle between tangent vector field of a non-null Lorentzian space curve and the tangent vector field of the corresponding associated pseudo spherical partner, iii) there is a constant angle between principle normal vector field of a non-null Lorentzian space curve and the binormal vector field of the corresponding associated pseudo spherical partner, iv) The principle normal vector field of a non-null Lorentzian space curve is parallel with respect to the binormal vector field of the corresponding associated pseudo spherical partner. Lastly, we derive a necessary and sufficient condition for a non-null Lorentzian space curve in Minkowski 3-space is a rectifying curve.

**Keywords:** *Associated curve, pseudo spherical curve, geodesic curvature, curvature, torsion, rectifying curve.*

**MEMBRAN BİYOREAKTÖRLERİN KENTSEL VE ENDÜSTRİYEL ATIKSU ARITIMINDA KULLANILMASI****USE OF MEMBRANE BIOREACTORS IN MUNICIPAL AND INDUSTRIAL WASTEWATER TREATMENT****İlknur ŞENTÜRK***Sivas Cumhuriyet University, ORCID: ID/0000-0002-8217-2281***ÖZET**

Membran biyoreaktörlerde çıkış suyu kalitesi aktif çamur sistemlerinden çok daha iyidir ve geleneksel biyolojik arıtım sistemlerine göre birçok avantajı vardır. Bu avantajlarından dolayı, çevresel açıdan kirlilik yaratan çoğu parametreyi standartlarda verilen değerlere indirmeyi başarır. MBR prosesinde bazı sentetik toksik organik maddelerin, yüksek molekül ağırlıklı çözünebilir materyallerin, organik mikro kirleticilerin, askıda katıların, KOI'nin, azot ve fosforun, poliaromatik hidrokarbonların (PAH) yanı sıra ağır metallerin giderimi de yapılabilir. MBR ile arıtılan suda tam nitrifikasyon sağlanır ve BOI seviyesi çok düşüktür (<2,0 mg/L). Koku oluşumu yoktur ve çıkış suyundaki bulanıklık 0,5 NTU'dan azdır. Flok büyüklüğünde, biyokütle veriminde ve ekzopolimerik maddelerin sentezinde azalma olur. Konvansiyonel sistemler ile karşılaştırıldığında çamur üretim miktarı daha azdır. Kentsel atıksu arıtımının yanı sıra endüstriden kaynaklanan yüksek KOI içeren atıksular, anaerobik MBR ile %90' nın üzerinde verimle başarılı bir şekilde arıtılabilir. Kalıcı organik kirleticiler, atıksudaki ağır metal seviyesi, biyolojik katıların hacimleri düşünüldüğü zaman MBR, konvansiyonel aktif çamur sistemi ile kıyaslandığında daha kabul edilebilir bir teknolojidir.

**Anahtar Kelimeler:** *Atıksu arıtımı, Endüstriyel atıksu, Kentsel atıksu, Membran biyoreaktör.*

**ABSTRACT**

Effluent water quality in membrane bioreactors is much better than activated sludge systems and has many advantages over conventional biological treatment systems. Due to these advantages, it is successful to reduce to the values given in the standards of the most of the parameters that cause environmental pollution. In the MBR process, some synthetic toxic organic substances, high molecular weight soluble materials, organic micro pollutants, suspended solids, COD, nitrogen and phosphorus, polyaromatic hydrocarbons (PAH) as well as heavy metals can be removed. Full nitrification is achieved in the water treated with MBR and the BOD level is very low (<2.0 mg/L). There is no odor formation and the turbidity in the outlet water is less than 0.5 NTU. There is a decrease in flock size, biomass yield and synthesis of exopolymeric substances. Sludge production amount is less compared to conventional systems. In addition to urban wastewater treatment, wastewaters with high COD content originating from industry can be successfully treated with anaerobic MBR with an efficiency of more than 90%. Considering persistent organic pollutants, heavy metal level in wastewater and volumes of biological solids, MBR is a more acceptable technology compared to conventional activated sludge system.

**Keywords:** *Wastewater treatment, Industrial wastewater, Municipal wastewater, Membrane bioreactor*

**KROM (VI) İÇEREN SULARIN BİYOLOJİK BİR YÖNTEM OLAN  
FİTOREMEDİASYONLA ARITIMININ İNCELENMESİ**

INVESTIGATION OF THE TREATMENT OF WATERS CONTAINING CHROMIUM  
(VI) BY FITOREMEDIATION, A BIOLOGICAL METHOD

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**ÖZET**

Artan sanayileşme ve kentleşme sonucunda ortaya çıkan ağır metal içerikli atık suların arıtımında sucul makrofitler sıkça kullanılmaya başlanmıştır. Bu çalışmada, canlı serbest yüzen sucul makrofit *Pistia stratiotes* ile sucul ortamdan Krom (Cr) (VI) giderimi çalışılmıştır. Çalışma sonucunda 4,5 mg/L Cr (VI) konsantrasyonunda %74,14 arıtım verimi elde edilmiştir. Bunun yanı sıra Cr (VI)'nın *P. stratiotes* üzerindeki toksik etkisi bağıl büyüme oranı, klorofil ölçümleri ve bitki gözlemleri ile kanıtlanmıştır. Cr (VI) arıtımı sonrası klorofil değerinin azaldığı, bitkinin bağıl büyüme oranının düştüğü görülmüştür. *P. stratiotes* ile Cr (VI) arıtımının 5 mg/L altındaki düşük konsantrasyonlarda etkili olacağı sonucuna varılmıştır.

**Anahtar kelimeler:** *Pistia stratiotes*, *Fitoremediasyon*, *Cr (VI) giderimi*

**ABSTRACT**

Aquatic macrophytes have started to be used frequently in the treatment of heavy metal-containing wastewater resulting from increased industrialization and urbanization. In this study, the removal of Cr (VI) from aqueous environment with live free floating aquatic macrophyte *P. stratiotes* was studied. As a result of the study, 74.14% treatment efficiency was obtained at 4.5 mg/L Cr (VI) concentration. In addition, the toxic effect of Cr (VI) on *P. stratiotes* has been proven by relative growth rate, chlorophyll measurements and plant observations. After Cr (VI) treatment, it was observed that the chlorophyll value decreased and the relative growth rate of the plant decreased. It was concluded that Cr (VI) treatment with *P. stratiotes* would be effective at low concentrations below 5 mg/L.

**Keywords:** *Pistia stratiotes*, *Phytoremediation*, *Cr (VI) removal*



**BOLU-YENİÇAĞA TURBALIKLARINDA BELLİ DERİNLİKLERE GÖRE  
PARAFİN ÖBEĞİNE BAĞLI GAZLARIN DAĞILIMININ İNCELENMESİ**

INVESTIGATION OF THE DISTRIBUTION OF GASES CONNECTED TO THE  
PARAFIN HUNCH ACCORDING TO SPESIFIC DEPTH IN BOLU-YENİÇAĞA  
POWDER

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**ÖZET**

Bolu İlimize bağlı, Yeniçağa İlçemizde bulunan turbalıkların işletilmesine izin verilmiş olan sığ zonlarından alınan numuneler üzerinde, gaz kromatografisi deneyleri yapılmıştır. Bu çalışmada, parafin öbeğine bağlı olan gazların dağılımı, alınan özel tüpler üzerindeki incelemeler sonucu belirlenmiştir. Yeniçağa Belediyesi elemanları ve proje ekibi ile birlikte, belirlenen günlerde, elektronik takeometre ile doğrultu ve kenar ölçmeleri yapılarak, numune alınacak noktalar için iki boyutlu jeodezik koordinatları (x,y) belirlendi. Akabinde gölün suyu çekilmiş alanından, özel bir karotiyeri tokmakla çakmak suretiyle, su seviyesine kadar inilerek, örselenmemiş turba numuneleri alınmıştır. Alınan bu numuneler, Zonguldak Bülent Ecevit Üniversitesinin Mühendislik Fakültesi Maden Mühendisliği Bölümü Kromatografi Laboratuvarında incelenmiştir. Parafin öbeğine bağlı gazların varlığı ve oranı bu inceleme sonucu tespit edilmiştir. Ayrıca laboratuvara götürülen örselenmemiş turba numunelerinin diğer özelliklerinin de, örneğin nem oranının, lif muhtevasının, parçacık boyutlarının, elektrik iletkenliğinin, tuz oranının, porozite ve birim-hacim ağırlıklarının, ilgili TSE Standartlarına göre belirlenmesi ve hacim-ağırlık blok diyagramının bulunması için de çalışmalar yapılmıştır. Jeokimya laboratuvarında yapılacak kimyasal analizler, organik ve anorganik bileşiklerin belirlenmesi esasına dayanmaktadır. Organik bileşikler için yapılacak analizler, C, H, N, S ve P elementlerinin tayini şeklindedir. Anorganik bileşikler için yapılacak analizler ise, Ca, Mg, Na, K, Mn, Mo, Cu, B, Fe, Zn tayinine dayalıdır. Ayrıca Kjeldahl Yöntemi ile NO<sub>3</sub>.N ve NP<sub>4</sub>.N bileşikleri belirlenmektedir. Bilindiği gibi turbalar, günümüzde, önde gelen hammadde kaynaklarından biridir. Turba hammaddesi, yoğun bir şekilde endüstride, çevre koruma ve rekültivasyonda, tıpta ve balneolojide, ilaç sanayiinde ve ziraatte kullanılmaktadır. Ayrıca turba koku, kaplıca çamuru, aktif karbon üretimi, enerji eldesi, sayısız kullanım alanlarından bazılarıdır. Çalışma, haritalama, kimyasal analizler, organik ve anorganik bileşiklerin belirlenmesi, pH tayini, humuslaşma değerinin belirlenmesi; turbanın ısı değeri ve kül oranının belirlenerek, turbalaşma derecenin tayini ve turba sınıflandırmasının yapılması şeklinde devam etmektedir.

**Not:** Bu çalışmanın gerçekleşmesinde 2001-76-02-41 kodlu, Araştırma Fonu Projesi ile maddi destek sağlayan Zonguldak Bülent Ecevit Üniversitesine teşekkür ederiz.

**Anahtar kelimeler:** Turba, Jeodezik Koordinat, Gaz Kromatografisi, Endüstriyel Hammadde.

### **ABSTRACT**

Gas chromatography experiments have been carried out on samples taken from shallow zones in Bolu Province, Yeniçağa District where peatlands are allowed to be operated. In this study, the distribution of gases attached to the paraffin cluster was determined as a result of examinations on the special tubes. With the Yeniçağa Municipality staff and the project team, on the determined days, direction and edge measurements were made with an electronic tacheometer, and the two-dimensional geodetic coordinates (x,y) for the points to be sampled were determined. Subsequently, undisturbed peat samples were taken from the area of the lake where the water was drawn, by driving a special core barrel to the water level. These samples were analyzed in the Chromatography Laboratory of the Engineering Faculty, Mining Engineering Department of Zonguldak Bülent Ecevit University. The presence and rate of gases connected to the paraffin cluster was determined as a result of this examination. In addition, studies were carried out to determine other properties of undisturbed peat samples taken to the laboratory, such as moisture content, fiber content, particle size, electrical conductivity, salt ratio, porosity and unit-volume weights, according to the relevant TSE Standards and to find a volume-weight block diagram. Chemical analyzes to be made in the geochemistry laboratory are based on the determination of organic and inorganic compounds. Analyzes for organic compounds are in the form of determination of C, H, N, S and P elements. Analyzes for inorganic compounds are based on the determination of Ca, Mg, Na, K, Mn, Mo, Cu, B, Fe, Zn. In addition, NO<sub>3</sub>.N and NP<sub>4</sub>.N compounds are determined by the Kjeldahl Method. As it is known, peat is one of the leading sources of raw materials today. Peat raw material is used extensively in industry, environmental protection, reclamation, medicine and balneology, pharmaceutical industry and agriculture. In addition, peat odor, thermal spring mud, activated carbon production, energy extraction are some of its numerous uses. Study, mapping, chemical analysis, determination of organic and inorganic compounds, determination of pH, determination of humification value; It continues by determining the heat value ash ratio of peat, determining the degree of peat formation and making peat classification.

**Keywords:** *Peat, Geodetic Coordinate, Gas Chromatography, Industrial Raw Material.*

**ANTIOXIDANT ACTIVITY AND TOTAL PHENOLIC CONTENT OF ESSENTIAL OIL OF  
*MENTHA LONGIFOLIA* SSP. *LONGIFOLIA*****Ayça AKTAŞ KARAÇELİK**

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**ABSTRACT**

It is a known fact that plants have been used for therapeutic purposes since ancient times. Essential oils, significant natural products obtained from plants, possess many biological activities such as anticancer, anti-inflammatory, antioxidant, antimicrobial, and antiviral powers. *Mentha longifolia* widely used in the pharmaceutical, food industries, and especially in cosmetics belongs to the Lamiaceae family. Different parts of the plant such as flower, seed, fruit, and leaf are widely used in folk medicine as a carminative, antimicrobial, antispasmodic, stimulant, anti-inflammatory, in the treatment of various diseases such as digestive disorders, bronchitis, and headaches. This study was conducted to investigate the total phenolic content and antioxidant activity of essential oil obtained from *Mentha longifolia* ssp. *longifolia* grown in Muş, Turkey. The essential oil of the plant was obtained by using a Clevenger apparatus for three hours. The total phenolic content and antioxidant activity of essential oil were evaluated by Folin-Ciocalteu, ferric reducing/antioxidant power (FRAP), and 2,2-diphenyl-1-picrylhydrazyl (DPPH•) radical scavenging assays, respectively. The essential oil showed total phenolic content as 165.39±2.77 µg gallic acid equivalent (GAE)/mL and 195.46±3.28 µg catechin equivalent (CE)/mL of essential oil. According to the antioxidant activity results, essential oil [SC<sub>50</sub>: 0.01459±0.0004 mg/mL mg/mL for DPPH and 424.14±2.17 µM Trolox Equivalent Antioxidant Capacity (TEAC) for FRAP] exhibited remarkable antioxidant activity than standard ascorbic acid (SC<sub>50</sub>: 0.02877±0.00100 mg/mL). The obtained results have shown that *M. longifolia* L. essential oil is a good source of natural antioxidants for the food and pharmaceutical industry with its high total phenolic content and antioxidant activity.

**Keywords:** *Mentha longifolia* L., essential oil, total phenolic content, antioxidant activity

**ÖZET**

Bitkilerin eski çağlardan beri tedavi amaçlı kullanıldığı bilinen bir gerçektir. Bitkilerden elde edilen önemli doğal ürünlerden biri olan uçucu yağlar, antikanser, antiinflamatuvar, antioksidan, antimikrobiyal ve antiviral güçler gibi birçok biyolojik aktiviteye sahiptir. İlaç, gıda endüstrileri ve özellikle kozmetikte yaygın olarak kullanılan *Mentha longifolia*, Lamiaceae ailesine aittir. Bitkinin çiçek, tohum, meyve, yaprak gibi farklı kısımları halk tıbbında gaz giderici, antimikrobiyal, antispazmodik, uyarıcı, antiinflamatuvar olarak ve sindirim bozuklukları, bronşit ve baş ağrısı gibi çeşitli hastalıkların tedavisinde yaygın olarak kullanılmaktadır. Bu çalışma, Muş ilinde doğal olarak yetişen *Mentha longifolia* ssp. *longifolia* uçucu yağının toplam fenolik içeriği ve antioksidan aktivitesini araştırmak amacıyla yapılmıştır. Bitkilerin uçucu yağı, Clevenger cihazı kullanılarak üç saat süreyle elde edildi. Uçucu yağın toplam fenolik içeriği ve antioksidan aktivitesi sırasıyla Folin-Ciocalteu, demir indirgeme/antioksidan güç (FRAP) ve 2,2-difenil-1-pikrilhidrazil (DPPH•) radikal temizleme metotları ile değerlendirildi. Uçucu yağ, 165.39±2.77 µg gallik asit eşdeğeri (GAE)/mL ve 195.46±3.28 µg kateşin eşdeğeri (KE)/mL olarak toplam fenolik içeriği göstermiştir. Antioksidan aktivite sonuçlarına göre, uçucu yağ [DPPH için SC<sub>50</sub>: 0.01459±0.0004 mg/mL ve FRAP için 424.14±2.17 µM Trolox Eşdeğer Antioksidan Kapasitesi (TEAC)], standart askorbik aside (SC<sub>50</sub>: 0.02877±0.00100 mg/mL) göre kayda değer antioksidan aktivite sergiledi. Elde edilen sonuçlar, *M. longifolia* L. uçucu yağının, yüksek toplam fenolik içeriği ve antioksidan aktivitesi ile gıda ve ilaç endüstrisi için iyi bir doğal antioksidan kaynağı olduğunu göstermiştir.

**Anahtar Kelimeler:** *Mentha longifolia* L., uçucu yağ, toplam fenolik içerik, antioksidan aktivite.

**TİYOFEN -TİYAZOL-SULFONAMİD YAPILARINI İÇEREN MOLEKÜLLERİN SENTEZİ**  
**SYNTHESIS OF MOLECULES CONTAINING THIOPHEN-THIAZOLE-SULPHONAMIDE**  
**STRUCTURES****Şengül Dilem DOĞAN***Erciyes University, Faculty of Science, ORCID: ID/0000-0003-1761-188X***Zülbiye KÖKBUDAK***Erciyes University, Faculty of Pharmacy, ORCID: ID/0000-0003-2413-9595,***Tuğba MEŞELİ***Erciyes University, Faculty of Science, ORCID: ID/0000-0002-1071-2226***ABSTRACT**

Sulfonamides (SA) are a synthetic broad-spectrum antibiotic drug group that can be classified in different ways. Sulfonamide derivatives are of interest due to their different physical, chemical and pharmaceutical properties as well as their wide application as antibacterial agents. Among the many classes of antibiotics, sulfonamides are the most commonly used substance in both developed and developing countries. It is among the most widely used antibacterial agents in the world due to its low cost and toxicity, excellent efficacy against bacterial diseases and wide range of activities. In addition to their antibacterial activities, SAs with many different biological activities such as antimicrobial, saluretic, carbonic anhydrase inhibitor, antitumor, antihypertensive, antifungal, antiprotozoal, anti-inflammatory, antiviral, rheumatoid arthritis, antidepressant, antiepileptic, anticancer are widely used in medicine and veterinary medicine. It is active against many gram positive and gram negative bacteria with SAs, Streptococcus, Staphylococcus, Escherichia coli, Neisseria, Shigella, Salmonella, Nocardia, Enterobacter Chlamydia and Clostridium species. It is also known that aryl and heteroaryl sulfonamides have antitumor effect. By competing with p-aminobenzoic acid for inhibition of folic acid synthesis, SAs are effective against bacterial infections. However, due to the bacteria's resistance to traditional sulfonamides over time, there was a need for different sulfonamide derivatives that show antimicrobial activity.

In this study, we aimed to carry out various molecular modifications on sulfathiazole, a well-known antibacterial sulfa drug, to overcome the problem of sulfonamide resistance. For this purpose, we synthesized twelve newly modified sulfonamide derivatives based on the structure of sulfathiazole. In the first step of this study, 4- (thiophene-2-yl) -1,3- thiazol-2-amine (TA) compound was synthesized by a series of reactions starting from 2- acetylthiophene. In the second step, new sulfonamide derivatives (TSA1-TSA12) were synthesized as a result of the reactions of (TA) compound with benzenesulfonyl chloride derivatives. The structures of all compounds were determined using IR, <sup>1</sup>H NMR, <sup>13</sup>C NMR spectroscopy and mass spectrometry methods.

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**Keywords:** *Synthesis, Sulfonamide, Thiazole Thiophene.*

**ÖZET**

Sülfonamidler (SA), farklı şekillerde sınıflandırılabilen, sentetik geniş spektrumlu bir antibiyotik ilaç grubudur. Sülfonamid türevleri, farklı fiziksel, kimyasal ve farmasötik özellikler göstermeleri ve antibakteriyel ajan olarak geniş uygulamaları nedeniyle ilgi çekmektedir. Çok sayıda antibiyotik sınıfı arasında, sülfonamidler hem gelişmiş -hem de gelişmekte olan ülkelerde sık kullanılan maddedir. Düşük maliyet ve toksisiteleri, bakteriyel hastalıklara karşı mükemmel etkinlikleri ve geniş aktivite yelpazesi nedeniyle dünyada en yaygın kullanılan antibakteriyel ajanlar arasındadır. Antibakteriyel etkinliklerinin yanı sıra antimikrobiyal, saluretik, karbonik anhidraz inhibitörü, antitümör, antihipertansif, antifungal, antiprotozoal, antiinflamatuvar, antiviral, romatoid artrit, antidepresan, antiepileptik, antikanser gibi birçok farklı biyolojik aktiviteye sahip SA'lar insan ve veterinerlik tıbbında yaygın olarak kullanılmaktadır. SA'lar, Streptococcus, Staphylococcus, Escherichia coli, Neisseria, Shigella, Salmonella, Nocardia, Enterobacter Chlamydia ve Clostridium türleriyle birçok

gram pozitif ve gram negatif bakteriye karşı aktiftir. Ayrıca aril ve heteroaril sülfonamidlerin antitümör etkisi gösterdiği bilinmektedir. Folik asit sentezinin inhibisyonu için p-aminobenzoik asit ile rekabet ederek, SA'lar bakteriyel enfeksiyonlara karşı etkili olmaktadır. Fakat bakterilerin zamanla geleneksel sülfonamidlere karşı direnç göstermesi nedeni ile antimikrobiyal aktivite gösteren farklı sülfonamid türevlerine ihtiyaç duyulmuştur. Bu çalışmada sülfonamid direnç sorununun üstesinden gelmek için, iyi bilinen bir antibakteriyel sülfonamid olan sülfatiazol üzerinde çeşitli moleküler modifikasyonlar gerçekleştirmeyi amaçladık. Bu amaç ışığında, sülfatiazolün yapısına dayalı olarak on iki yeni modifiye edilmiş sülfonamid türevini sentezledik. Bu çalışmanın ilk basamağında, 4-(tiyofen-2-il)-1,3-tiyazol-2-amin (TA) bileşiği 2-asetiltiyofenden başlayarak, bir seri reaksiyonlar sonucu sentezlendi. İkinci basamakta, (TA) bileşiğinin benzensülfonil klorür türevleri ile reaksiyonları sonucu yeni sülfonamid türevleri (TSA1-TSA12) sentez edildi. Bütün bileşiklerin yapıları IR, <sup>1</sup>H NMR, <sup>13</sup>C NMR spektroskopisi ve kütle spektrometresi yöntemleri kullanılarak belirlendi.

Bu çalışma, Erciyes Üniversitesi Bilimsel Araştırma Projeleri Birimi tarafından FYL-2018-8309 kodlu proje ile desteklenmiştir. Bu araştırmayı destekleyen Erciyes Üniversitesi Bilimsel Araştırma Projeleri Birimine teşekkür ederim.

**Anahtar Kelimeler:** *Sentez, Sülfonamid, Tiyazol Tiyofen.*

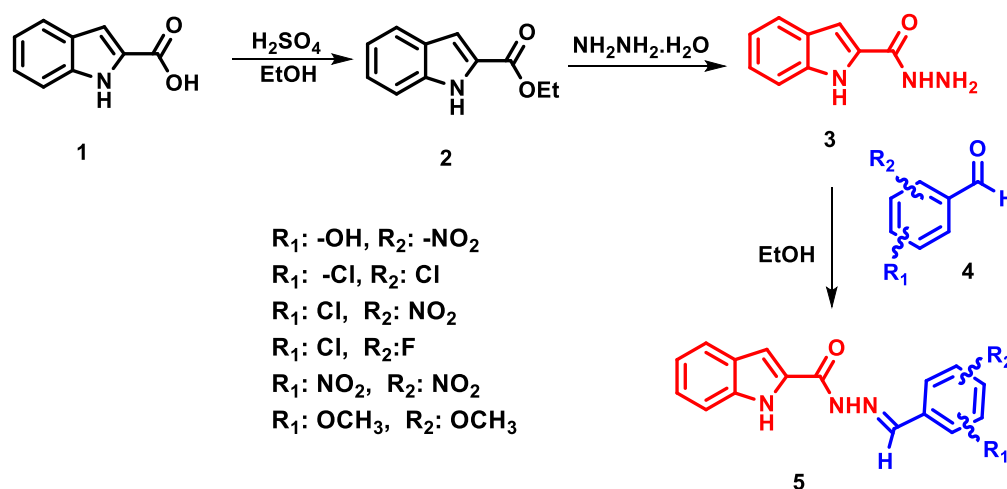
## THE SYNTHESIS OF NOVEL INDOLE N-ACYLHYDRAZONE DERIVATIVES

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## ABSTRACT

Nitrogen containing heterocycles are important compounds due to their biological activities. Indole derivatives have various pharmaceutical applications such as antibacterial, anticancer, antidepressant and anti-HIV properties. Schiff bases are also important in pharmaceutical chemistry as a pharmacophore and antioxidant, antidiabetic, analgesic potentials are among their numerous activities.<sup>1</sup> In literature, it has been shown that the schiff bases containing indole heterocycle has significant biological activities such as anticancer, antitumor, antioxidant and antimicrobial. Thus, the number of the studies on the synthesis of schiff bases having indole skeleton on their structure has been increasing in recent years. In this work, we focused on the construction of novel indole-2-carboxylic acid benzylidene-hydrazides **5** which is also called as indole N-acylhydrazones. The key step of the synthetic pathway is the reaction between indole-2-carbohydrazide **3** and substituted benzaldehydes **4**. To obtain the key compound **3**, indole-2-carboxylic acid (**1**) was chosen as a starting material and it was firstly converted to related ester **2** and then the compound having ester functionality **2** was reacted with hydrazinemonohydrate with the help of the literature procedures. The formed product **3** of this reaction was treated with various substituted benzaldehydes **4** in order to get corresponding novel N-acylhydrazone derivatives **5** that have different substituents on phenyl ring. The synthesized novel target molecules **5** are important compounds, both synthetically and pharmacologically, due to their high probability of biological activity because of the functional groups and heterocycles in their structures.



**Keywords:** Indole derivatives, schiff base, N-acylhydrazone, carbohydrazide.

**İĞDIR İÇME SULARINDAKİ TUNGSTENİN ICP-MS İLE TAYİNİNE POTASYUM  
PERMANGANATIN ETKİSİ**

**THE EFFECT OF POTASSIUM PERMANGANATE ON THE DETERMINATION OF  
TUNGSTEN IN İĞDIR DRINKING WATERS WITH ICP-MS**

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**ÖZET**

İğdir ili ve ilçelerindeki içme suları, Ağrı dağı volkanik kayaların toksik etkisi dolayısıyla birçok ağır metal ve toksik elementi bileşiminde çözünmüş halde bulundurmaktadır. Bunlardan arsenik su içinde kabul edilebilir standartları aşmaktadır. Ayrıca yoğunlukları sırasıyla 10,2 g/cm<sup>3</sup> 19,26 g/cm<sup>3</sup> olan ağır metallerden molibden ve tungsten sularında: +2, +3, +4, +5 veya +6 yükseltgenme basamaklarında kompleks iyonlar halinde çözünebilmektedir.

Doğada volkanik alanlarda bulunan tungsten en çok Şilit (CaWO<sub>4</sub>), Wolframit (Fe,Mn,WO<sub>4</sub>) Wolframioixiolite (Fe,Mn,Nb)(Nb,W,Ta)O<sub>4</sub>, Sanmartinite (Zn,Fe)WO<sub>4</sub>, Krasnoselskite (CoWO<sub>4</sub>), Hubnerite MnWO<sub>4</sub> ve Ferberite FeWO<sub>4</sub> mineralleri literatürde yer almaktadır. Bu tungsten içerikli minerallerinin zenginleştirilmesinde kullanılan bazik ortamda çözülen amonyum tungstatın saflaştırılması prosesinde, suda (NH<sub>4</sub>)<sub>2</sub>WO<sub>4</sub> ve (NH<sub>4</sub>)<sub>2</sub>MoO<sub>4</sub> tuzlarının çözüldüğü görülmektedir.

ICP-MS ile ilk ölçüm yapılmadan önce, İğdir ili ve ilçelerinde içme suyu olarak kullanılan su numuneleri ilk olarak 2 N. HNO<sub>3</sub> damla ile asitlendirilmiştir. İkinci ölçüm alınmadan önce 200 ppm'lik KMnO<sub>4</sub> ten bir damla eklendi ve ikinci ölçüm alındı. Son olarak aynı su numunelerine iki damla 200 ppm'lik KMnO<sub>4</sub> eklendi ve ICP- MS üçüncü ölçüm alındı. Bu ölçümlerde elde edilen en yüksek sonuçlar sırasıyla Molibden ve Tungsten değerleri: 7,98 ppm, 9,92 ppm iken, en küçük sonuçlar sırasıyla: 1,074 ppm ve 0,016 ppm şeklindedir.

Dolayısıyla İğdir içme sularında bulunan tungsten ve molibden iyonlarının yükseltgenme basamaklarına bağlı olarak ICP- MS ile KMnO<sub>4</sub> ortamında konsantrasyon değişimi belirlenerek yükseltgenme basamakları ortaya tespit edildi.

**Anahtar Kelimeler:** *KMnO<sub>4</sub>, Molibten, Tungsten, Oksidasyon basamağı, İçme suyu.*

**ABSTRACT**

Because of the toxic effect of mount Ağrı volcanic rocks the drinking water in İğdir province and districts have being contains to the dissolved many heavy metals and toxic elements. It has been exceeds acceptable standards arsenic of these one in drinking water. In addition, it can be dissolved as complex ions in oxidation steps of +2, +3, +4, +5, and +6, densities of respectively 10.2 g / cm<sup>3</sup> 19.26 g / cm<sup>3</sup>, heavy metals molybdenum and tungsten.

It is being, the most of tungsten minerals Scheelite (CaWO<sub>4</sub>), Wolframite (Fe, Mn, WO<sub>4</sub>), Wolframioixiolite (Fe,Mn,Nb) (Nb,W,Ta)O<sub>4</sub>, Sanmartinite (Zn,Fe)WO<sub>4</sub>, Krasnoselskite (CoWO<sub>4</sub>), Hubnerite (MnWO<sub>4</sub>), and Ferberite (FeWO<sub>4</sub>) are in the volcanic areas in the world. It is seen that (NH<sub>4</sub>)<sub>2</sub>WO<sub>4</sub> and (NH<sub>4</sub>)<sub>2</sub>MoO<sub>4</sub> salts dissolved in the basic solution used in the enrichment of these tungsten-containing minerals are dissolved in water in the process of purification of ammonium tungstate.

Before it was first measured with ICP-MS, the water samples used as drinking water in İğdir province and its districts were acidified with a drop of 2 N. HNO<sub>3</sub>. The second sample was measured after it was added a drop of 200 ppm KMnO<sub>4</sub>. It was made third measurement with ICP-MS, after the same water samples were added two drops of 200 ppm KMnO<sub>4</sub>. It was measured maximum results obtained respectively molybdenum and tungsten values, 7.98 ppm, 9.92 ppm, while the minimum are 1.074 ppm and 0.016 ppm.

Therefore, the oxidation steps was determined with ICP-MS were changing of solution concentrations of tungsten and molybdenum ions in İğdir drinking water after were added to KMnO<sub>4</sub>.

**Key words:** KMnO<sub>4</sub>, Molybdenum, Tungsten, Oxidation steps, Drinking water

**SYNTHESIS OF ZnO, ZnFe<sub>2</sub>O<sub>4</sub> and ZnO/ZnFe<sub>2</sub>O<sub>4</sub> FILMS AND INVESTIGATION OF THEIR PHOTOCATALYTIC EFFICIENCIES**

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**ABSTRACT**

The application of heterogeneous photocatalytic water purification processes is very popular due to its effectiveness in mineralizing the organic compounds as well as the possibility of utilizing the UV and visible-light spectrum. The photocatalytic degradation of the organic pollutants with the ZnO as photocatalyst is widely studied in the world. In this paper, various morphologies of ZnO, ZnFe<sub>2</sub>O<sub>4</sub> and ZnO/ZnFe<sub>2</sub>O<sub>4</sub> composite films are prepared via a two-step route including precipitation process and sol-gel method. The films are deposited on glass substrates via dip coating technique and characterized by means of Scanning Electron Microscopy, X-ray diffraction and UV-vis spectroscopy. Nanostructured ZnO thin films with different concentrations of ZnFe<sub>2</sub>O<sub>4</sub> (0, 0.25, 0.5 and 1.0 wt%) are investigated and compared for photocatalytic degradation of Malachite Green (3, 5 and 10 ppm) under UV and visible illumination. The experimental results indicate that the combination of spinel structure with ZnO (hexagonal wurtzite) reduces the photocatalytic efficiencies (UV –  $D_{\text{ZnO}} = 98\%$ ,  $D_{\text{ZnO/ZnFe}_2\text{O}_4} = 68\%$  and Vis –  $D_{\text{ZnO}} = 86\%$ ,  $D_{\text{ZnO/ZnFe}_2\text{O}_4} = 56\%$ )

**Keywords:** *zinc oxide, zinc ferrite, thin films, photocatalysis, sol-gel, Malachite Green.*



**ANATASE/RUTILE COMPOSITES – ON THE PHOTOCATALYTIC DEGRADATION OF  
ORANGE II AZO-DYE**

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**ABSTRACT**

The investigation is focused to clarify photocatalytic discoloration and purification of Orange II water solutions under UV irradiation with anatase/rutile composite powder catalysts samples. Comparative experiments with the commercial anatase, rutile and Degussa P 25 are provided. The variation of the pH values during the experiments is reported. The photocatalysts samples are characterized by SEM and XRD analysis. The photocatalytic destruction of Orange II was determined by spectroscopic and total organic carbon analysis. Faster and total discoloration of 20 ppm Orange II suspensions with Degussa P 25 is observed comparing the photocatalytic activity of the prepared anatase/rutile composites to the commercial catalysts. The apparent rate constants of the process generally increase with the anatase content in the composite samples. However, the total organic carbon measurements of the investigated solutions show better mineralization of the dye treated with the anatase 75 % catalyst sample.

**Keywords:** *TiO<sub>2</sub> composites, heterogeneous photocatalysis, UV light, Orange II, dye mineralization.*

**SYNTHESIS AND INVESTIGATION OF A NEW CRISTALLINE ORGANIC-INORGANIC  
HYBRID MATERIAL BASED ON ANTIMONY**

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**ABSTRACT**

In this work, we are interested to study the structural geometry, the Hirshfeld surface analysis and fingerprint plots to identify the significant intermolecular interactions in the lattice. The NMR spectroscopy of  $^{13}\text{C}$  is in agreement with the X-ray structure. The UV–visible spectrum exhibits two absorption bands with the band gap energy ( $E_g$ ) values are equal to 4.7 and 5.3 eV. Functional group identification of the compound was studied by Fourier transform infrared (FTIR) and Raman spectroscopy.

**Keywords:** *Hirshfeld surface analysis, NMR spectroscopy, UV–visible.*

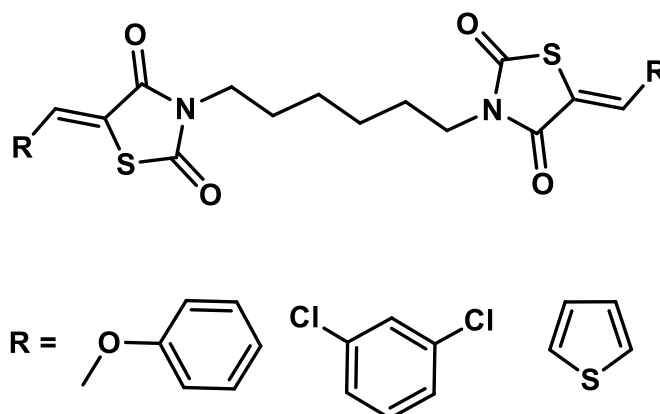
## NOVEL SYNTHESIS OF NEW BIS-THIAZOLIDINE-2, 4-DIONE AS ANTIMICROBIAL AGENT

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**ABSTRACT**

Thiazolidine-2,4-dione(2,4-TZD) is a heterocyclic ring and their derivatives are shown in a variety of biological activities [1,2]. It also has various medicinal properties such as antifungal [3], antibacterial [4], and antidiabetic [5], etc which increase its trait by being in different positions, so this ring is important from a pharmacological point of view. In this study, we succeeded in synthesizing a novel combination of bis-2,4-TZD by using one equivalent pre-made bis-aldehyde in reaction with two equivalents 2,4-TZD. The target product was separated, purified, and characterized using IR,  $^1\text{H}$ ,  $^{13}\text{C}$ NMR. The newly synthesized compound was evaluated for its in vitro antibacterial and antifungal activity. Antimicrobial studies have shown that this compound has high antibacterial activity. While it is much lower than its antifungal effect, consequently this combination is remarkable due to its non-toxicity, high antimicrobial activity, and high yield of production.



The new combinations were prepared for bis-2,4-TZD

**Keywords:** *Thiazolidine-2,4-dione(2,4-TZD), antibacterial, bis-2,4-TZD, antifungal.*

**INHIBITION AND DELAYING EFFECTS OF FRUIT ON SEEDLING EMERGENCE OF  
*Melia azedarach* L. COMPARED WITH ENDOCARP AND SEED**

***Melia azedarach* L. FİDE OLUŞUMUNDA MEYVENİN TOHUM VEYA ENDOKARP İLE  
KARŞILAŞTIRILDIĞINDA ENGELLEYİCİ VE GECİKTİRİCİ ETKİSİ**

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**ABSTRACT**

*Melia azedarach* is one of the broadleaved, perennial woody plant species and belongs to Meliaceae family. The plant is multipurposes and has few pests and diseases. Because of this reason, some of the plant parts may be used as plant protection agent.

One of the propagation methods is generative propagation and this study is aimed to find out seedling emergence ratio differences between groups (fruit, endocarp and seed) under different water treatments as 1 day, 7 days and 14 days along besides control (no water treatment) under non-sterile condition in laboratory before sowing peat under greenhouse. At the end of the 120th day the study was completed and first and last emergence days (day and date), seedling emergence rate (%), shoot number per sowed part were revealed.

Data showed that first seedling emergence days changed between 25,50-36,75 in seeds and 31,00-37,25 in endocarp in all water treatment and control. In fruits there is no emergence in control and first seedling emergence days changed between 53,00-78,00 in all water treatments. Emergence ratios were very high with a ratio of 80-92,50% in endocarps, and very low with a ratio of 0-12,5% in fruits. According to data this is emphasized that the planted parts (fruit, endocarp, seed) are more effective than water treatment in most parameters and the fruit has a strong emergence inhibiting and retarding effects on seedling emergence in *Melia azedarach*.

**Key words:** *Melia azedarach*, fruit, endocarp, seed, seedling, water treatment

**ÖZET**

*Melia azedarach* geniş yapraklı, çok yıllık, odunsu bir bitki türü olup Meliaceae familyasına aittir. Kullanım amaçları çok yönlü olan bu bitkinin çok az hastalık ve zararlısı bulunmaktadır. Bu sebepten dolayı da bazı bitki kısımları bitki koruma maddesi olarak kullanılabilir.

Çoğaltma yöntemlerinden biri de generatif çoğaltma olup bu çalışmada cam serada torf ortamına dikilmeden önce kontrol (su muamelesi yapılmamış) uygulamasının yanısıra laboratuvarında steril olmayan şartlar altında 1 gün, 7 gün ve 14 gün olacak şekilde farklı su uygulamalarına alınan ekimi yapılacak grupların (meyve, endokarp ve tohum) fide oluşumuna etkisini ortaya koymak amaçlanmıştır. 120 gün sonunda tamamlanan çalışmada ilk ve son bitki çıkış günleri (gün ve tarih), bitki çıkış oranı (%), ekilen her bir kısımdan çıkan sürgün sayısı ortaya konmuştur.

Sonuçlara göre; bütün su uygulamaları ve kontrol dahil edildiğinde ilk bitki çıkışlarının günleri tohumlarda 25,50-36,75 arasında, endokarplarda 31,00-37,25 arasında olmuştur. Meyveler kontrol uygulamasında hiçbir bitki çıkışı yapamazken, su uygulamalarında bitki çıkış günleri 53,00-78,00 arasında olmuştur. Fide oluşum oranı; su uygulamaları ve kontrolün tamamı göz önüne alındığında %80,00-92,50 ile en yüksek değerleri endokarp ekimlerinde, %0-12,50 ile en düşük değerleri meyve ekimlerinde göstermiştir.

Elde edilen verilere göre *Melia azedarach* bitkisinde fide elde edilmesinde çoğu parametre açısından ekimi yapılacak kısmın (meyve, endokarp, tohum) su uygulamalarına göre daha önemli olduğu, meyvenin fide oluşumunda kuvvetli bir engelleyici ve süreyi geciktirici etkisi olduğu vurgulanabilir.

**Anahtar kelimeler:** *Melia azedarach*, meyve, endokarp, tohum, fide, su muamelesi

**NUMERICAL STUDY OF HEAT AND MASS TRANSFER CONTROL INSIDE  
CHANNEL PARTIALLY FILLED WITH A POROUS MEDIUM USING HYBRID  
NANOFLUID**

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**ABSTRACT**

The aim of this paper is the numerical analysis of the heat and mass transfer during mixed convective drying of porous walls containing hybrid nanofluid. A solid phase, a hybrid nanofluid phase, and a gas phase are all present in the porous wall, which is positioned in a vertical channel as the application of drying the brick. For this, we developed a two-dimensional code using Comsol Multiphysics that solves the systems of equations for mass, momentum, species and energy. After validation of this numerical code, the effect of several parameters such as nanoparticle volume fraction, ambient temperature and initial nanofluid saturation on heat and mass transfer were investigated. The temperature of the porous medium is found to be significantly reduced as the nanoparticle volume fraction increases. As compared to pure water, the heat and mass transfer of Water-Alumina-Copper hybrid nanofluid has been found to be significantly reduced.

**Key words:** *mixed convection, porous media, heat transfer, mass transfer, hybrid nanofluid.*

**ASSESSING THE PERFORMANCE OF HUNGARIAN VETCH GENOTYPES FOR  
AGRONOMIC AND HAY YIELD TRAITS**

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**ABSTRACT**

*Vicia pannonica* L. which commonly known as Hungarian vetch is an important legume crop used as forage crop having balanced nutrition for livestock feeding. Hungarian vetch is winter-hardy and drought-resistant legume species and cultivated in regions having cool winter growing conditions. This plant has a semierect growth habit with a leaning tendency in pure stands, especially during rainy years. During this study, a total of five Hungarian vetch genotypes were used as plant material for the investigation of agronomic and hay yield related traits. Field experiment was conducted in November 2017 using randomized complete block design with three replications and harvesting was performed in July 2018. A good range of variations was observed for various studied traits. Mean days to flowering were 158.2, mean plant height 58.35 cm, resistance to fold was 93.25%, green hays was 1437.25 kg/da and dry hay was 277.71 kg/da. Correlation analysis was performed and dry hay yield reflected highly significant and positive association with green hay. The genotype vs trait biplot analysis was performed and first two components accounted a total of 86.38% variations. The biplot analysis revealed that days to flowering, plant height and green hay are main variation contributing traits and should be used for the selection of superior common vetch genotypes. Among the evaluated five Hungarian vetch genotypes, Budak genotype was found superior for various agronomic and hay related traits and could be used for large scale cultivation.

**Keywords:** *Vicia pannonica*, *Fodder Crop*, *Legume*, *Hay Yield*, *Turkey*.

**ASSESSING THE PERFORMANCE COMMON VETCH GENOTYPES FOR AGRONOMIC  
AND HAY YIELD TRAITS**

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**ABSTRACT**

Legumes are considered key pillar of our agriculture production system and contributing a vital role in the sustainable agriculture system. Legumes are serving a source of nutritious food for both human and livestock. Among the most important legume crops, Common vetch (*Vicia sativa* L.) is highly nutritious crop used as fodder crop. The origin center of this crop is considered Mediterranean basin, now it is cultivated all over the world due to having high nutrition and economic and ecological advantages. Current investigation involved six common vetch genotypes for the assessment of their performance for various agronomic and hay yield traits. Field experiment was conducted in April 2018 using randomized complete block design with three replications and harvesting was performed in July 2018. A good range of variations was observed for various studied traits. Mean values for studied like days to flowering (106.62), main stem length (63.45 cm), main stem width (2.59 mm), plant height (38.96 cm), number of tiller (3.35), resistance to cold (100%), green hay (3176.2 kg/da) and dry hay (716.20 kg/da) were observed during the study. Dry hay reflected highly significant and a positive correlation with main stem width, plant height and green hay. The genotype vs trait biplot analysis was performed and first two components accounted a total of 78.98% variations. The biplot analysis revealed that days to flowering, number of tillers and green hay are main variation contributing traits and should be used for the selection of superior common vetch genotypes. Amon the evaluated six common vetch genotypes, krallığı genotype was found superior for various agronomic and hay related traits and could be used for large scale cultivation.

**Keywords:** *Vicia sativa*, Fodder Crop, Green Hay, Dry Hay.

FARKLI BESİN REÇETELERİ VE IŞIK YOĞUNLUĞUNUN DOMATES BİTKİSİNİN  
GELİŞİMİ ÜZERİNE ETKİSİ

EFFECT OF DIFFERENT NUTRIENT SOLUTION CONCENTRATIONS AND LIGHT  
INTENSITY ON THE DEVELOPMENT OF TOMATO PLANT

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ÖZET

Bu çalışmanın amacı, kontrollü şartlar altında farklı besin reçeteleri ve farklı ışık yoğunluğu uygulamalarının domates bitkilerinin gelişimi üzerine etkisinin olup olmadığını belirlemektir.

Çalışmada Adamset çeşidi F1 hibrit domates bitkileri kullanılmıştır. Çalışmada domates bitkileri, kontrollü iklim odasında 16/8 saatlik aydınlık/karanlık fotoperiyotta, 25<sup>0</sup> C sıcaklıkta, % 65 nemde, 400 µmol m<sup>-2</sup>s<sup>-1</sup> ışık ve 800 µmol m<sup>-2</sup>s<sup>-1</sup> ışık yoğunluğunda 6 farklı besin solüsyonu kullanılarak hidroponik kültürde yetiştirilmiştir. Domates tohumları çimlendirme kaplarındaki pomza içine ekilmiştir. Tohumlar çimlendikten sonra, 2 gerçek yaprak oluşan fideler hidroponik kültüre alınmıştır. Özel olarak hazırlanmış ve plastik tablalara domates fideleri bitki kökleri besin solüsyonu içinde olacak şekilde yerleştirilmiştir. Havalandırma işlemi, akvaryum pompasına bağlı bulunan ince plastik hortumların besin çözeltisi içerisine daldırılması yoluyla yapılmıştır. Kullanılan standart Hogland besin solüsyonuna farklı dozlarda Mg (12 ppm, 24 ppm, 36 ppm, 48 ppm, 60ppm, 72 ppm) ve K (117.1 ppm, 136.6 ppm, 156.1 ppm, 175.6 ppm, 195.1 ppm, 214.6 ppm) eklenmiştir. Her hafta çözeltiler tazelenmiştir Örnek alma işlemi 20.günün sonunda yapılmıştır. Bitkilerin, kök, gövde ve yaprak ağırlıkları, gövde boyu ve çapı ile yaprak sayısına bakılmıştır.

Çalışmadan elde edilen veriler doğrultusunda yapılan uygulamaların bitki gelişim parametreleri bakımından farklılıklar oluşturduğu söylenebilir. 800 µmol m<sup>-2</sup>s<sup>-1</sup> ışık yoğunluğunda yetişen ve artan dozlarda Mg ve K uygulamalarının domates bitkilerinin bitki gelişimine olumlu etkisinin olduğu yapılan ölçümler sonunda belirlenmiştir.

**Anahtar Kelimeler:** *Domates, ışık, magnezyum, potasyum, bitki gelişimi.*

ABSTRACT

The aim of this study was to determine whether different nutrient solution concentrations and different light intensity applications have an effect on the development of tomato plants under controlled conditions. Adamset F1 hybrid tomato variety was used in the study. In the study, tomato plants were grown in a hydroponic culture by using six different nutrient solutions at 16/8 hours light / dark photoperiod, 25<sup>0</sup> C temperature, 65% humidity, 400 µmol m<sup>-2</sup>s<sup>-1</sup> light and 800 µmol m<sup>-2</sup>s<sup>-1</sup> light intensity in a controlled climate room. Tomato seeds were planted in pumice in germination containers. After the seeds germinated, the seedlings consisting of 2 true leaves were taken into hydroponic culture. Pepper seedlings were placed in specially prepared plastic trays so that the plant roots were in the nutrient solution. Aeration was done by dipping thin plastic hoses connected to the aquarium pump into the nutrient solution. Different doses of Mg (12 ppm, 24 ppm, 36 ppm, 48 ppm, 60ppm, 72 ppm) ve K (117.1 ppm, 136.6 ppm, 156.1 ppm, 175.6 ppm, 195.1 ppm, 214.6 ppm) were added to the standard Hogland solution used. Solutions were refreshed every week. Sampling was done at the end of the 20th day. Weights of roots, stems and leaves, stem length and diameter and number of leaves were examined. In line with the data obtained from the study; It can be said that applications create differences in terms of plant growth parameters. It has been determined that growing at 800 µmol m<sup>-2</sup>s<sup>-1</sup> light intensity and Mg and K applications increasing doses have a positive effect on the plant growth of tomato plants.

**Keywords:** Tomato, light, magnesium, potassium, plant growth.



**FARKLI DOZLARDA TİCARİ MİKROBİYAL GÜBRE UYGULAMASININ  
SOĞAN TOHURLARININ ÇİMLENMESİ ÜZERİNE ETKİSİ  
EFFECTS OF DIFFERENT DOZES COMMERCIAL MICROBIAL  
FERTILIZER ON GERMINATION OF ONION SEEDS**

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**ÖZET**

Mikrobiyal gübreleme bazı doğal mikroorganizmaların çoğaltılarak uygun bir formülasyonda bitkilere verilmesidir. Mikrobiyal gübreler tarımda birçok amaçla kullanılan alternatif metotlardan birisidir. Bu çalışma, üretici firma tarafından garanti edilen, *Bacillus* spp., *Bifidobacterium* spp., *Lactobacillus* spp., *Streptococcus* spp., *Saccharomyces* spp. Ve *Rhodopseudomonas* spp bakterilerini içeren bir ticari mikrobiyal gübrenin (%0, %1, %2, %3, %4, %5) soğan (*Allium cepa* L.) tohumlarının çimlenmesi üzerine etkilerini araştırmak amacıyla yürütülmüştür. Mikrobiyal gübre olarak ise SCD ProBio Balance TM Plus (SCD Probiyotik İlaç San. ve Tic. A.Ş.) kullanılmıştır. Deneme tesadüf parselleri deneme desenine göre beş tekerrürlü olarak yürütülmüştür. Her tekerrürde 5 petri (10 cm çapındaki kapaklı petri kapları) olacak şekilde petri başına 20 tohum ekilerek gerçekleştirilmiştir. Mikrobiyal gübre (%0, %1, %2, %3, %4, %5 dozlarında) ilave edilen tohumlar çift kat filtre kâğıdı içeren cam petri kaplarına ekilmiştir. Her bir petriye toplamda 5 ml mikrobiyal gübre + su karışımı ilave edilmiştir. Mikrobiyal gübre uygulanan soğan tohumları 23±2 °C'ye ayarlanan inkübatörde çimlenme testlerine tabi tutulmuştur. Tohumlarda kökçüğün görülmesi (1-2 mm) çimlenme için yeterli sayılmış ve her gün çimlenen tohum sayısı belirlenmiş ve bu işlem çimlenen tohum sayısı sabit hale gelene kadar devam etmiştir. Çimlenme testi sonunda toplam çimlenme oranı (%), çimlenme hızı (G50):%50 çimlenme için geçen zaman (gün), çimlenme üniformitesi (G10-90): %10 çimlenme ile %90 çimlenme arasındaki süre (gün) parametreleri belirlenmiştir. Mikrobiyal gübre olarak *Bacillus* spp., *Bifidobacterium* spp., *Lactobacillus* spp., *Streptococcus* spp., *Saccharomyces* spp. ve *Rhodopseudomonas* spp'un kombinasyonunun topraksız koşullarda soğan tohumlarında çimlenmeyi olumlu olarak etkilediği görülmüştür.

**Anahtar Kelimeler:** *Soğan, Mikrobiyal Gübre, Çimlenme, Çimlenme Oranı.*

**ABSTRACT**

Microbial fertilization is the reproduction of some natural microorganisms to plants in a suitable formulation. Microbial fertilizers are one of the alternative methods used in agriculture for many purposes. This research was conducted in order to investigate effects of a commercial microbial fertilizer containing *Bacillus* spp., *Bifidobacterium* spp., *Lactobacillus* spp., *Streptococcus* spp., *Saccharomyces* spp. and *Rhodopseudomonas* spp. (0%, 1%, 2%, 3%, 4%, 5%) on the germination of onion (*Allium cepa* L.) plants. Seeds of Onion (*Allium cepa* L.) were used as plant material. SCD ProBio Balance TM Plus was used as microbial fertilizer. The experiment was conducted with randomized plot design with five replications. It was performed by sowing 20 seeds per petri dish with 5 petri dishes (10 cm diameter lid petri dishes) in each repetition. The seeds were added to microbial fertilizer (0%, 1%, 2%, 3%, 4%, 5%) and the seeds were planted in glass petri dishes containing double filter paper. A total of 5 ml of microbial fertilizer + water mixture to each petri dish was added. Onion seeds with microbial fertilizer were subjected to germination tests in incubator set to 23 ± 2 °C. Seedling (1-2 mm) was considered sufficient for germination and the number of seeds germinated each day was determined and this process continued until the number of germinated seeds became constant. At the end of germination test, total germination rate (%), germination rate (G50): time elapsed for 50% germination (days), germination uniformity (G10-90): time between 10% germination and 90% germination (day) parameters were determined. *Bacillus* spp., *Bifidobacterium* spp., *Lactobacillus* spp., *Streptococcus* spp., *Saccharomyces* spp. and *Rhodopseudomonas* spp. have been shown to positively affect germination of onion seeds under hydroponic conditions.

**Keywords:** *Onion, Microbial Fertilizer, Germination, Germination Rate.*

**TÜRKİYE’DE KEÇİ SÜTÜ ÜRETİMİNİN GELECEĞİ ÜZERİNE BİR DEĞERLENDİRME**

AN EVALUATION ON THE FUTURE OF GOAT MILK PRODUCTION IN TURKEY

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FAO'nun 2019 yılı verilerine göre Türkiye, dünya keçi mevcudunun %1'ini, dünya keçi sütü üretiminin ise %2.9'unu oluşturmaktadır. 2019 yılında sağılan 5471086 baş hayvandan 577209 ton keçi sütü elde edilmiştir. Aynı yıl Türkiye toplam süt üretiminin (22960379 ton) %2.51'ini keçi sütü oluşturmuştur. Keçi yetiştiriciliği ve keçi sütünün son dönemde ekonomik değer kazanmasıyla birlikte bu konuya ilişkin yayınların ve araştırmaların da arttığı görülmektedir. Keçi ürünlerinin önem kazanması ve alternatif bir gelir kaynağı olabileceğinin ortaya çıkmasından sonra, bugün artık üretici, sanayici ve tüketici keçi sütü ve ürünlerine daha çok ilgi göstermekte ve bu yöndeki araştırmaları dikkate almaktadır. Türkiye’de son dönemde keçi yetiştiriciliğinin geliştirilmesi açısından üreticileri ve bu alana yatırım yapacak girişimcileri teşvik edecek farklı uygulamalar düzenlenmiştir. Keçi yetiştiriciliğinde sürdürülebilirlik; ekonomik, kültürel, politik ve sosyo-ekonomik faktörlerden etkilenmektedir. Bu nedenle, keçi yetiştiriciliğinde sürdürülebilirliğe etki eden faktörlerin incelenmesi, izlenecek politikaların kurgulanması aşamasında önem taşımaktadır. Bu çalışmanın amacı, Türkiye’de keçi sütü üretimindeki gelişmeleri incelemek ve geleceği üzerine bazı değerlendirmeler yapmaktır. Çalışmanın ana materyalini, FAO, TÜİK, Tarım ve Orman Bakanlığında elde veriler ile konuyla ilgili daha önce yapılan araştırmalardan elde edilen sonuçlar oluşturmaktadır. Toplanan istatistiksel veriler çizelgeler şeklinde düzenlenmiş, yüzde ve indeks hesaplamaları yapılarak yorumlanmıştır. Keçi yetiştiriciliğinde süt üretiminin ekonomik olarak sürdürülebilirliğini sağlamak için, süt üretimi gelirini artıracak ve yem masraflarını azaltacak önlemlerin alınması ve yetiştiricilerin daha fazla desteklemelerden yararlanabilmesi için gerekli düzenlemelerin yapılması gerekmektedir. Keçi yetiştiriciliğine yönelik destekleme politikaları gözden geçirilmeli ve desteklerin AB’ndeki hayvancılık destekleme düzeylerine yükseltilmesi sağlanmalıdır.

**Anahtar kelimeler:** *küçükbaş hayvancılık, keçi yetiştiriciliği, keçi yetiştiriciliği ekonomisi, keçi sütü, keçi peyniri.*

**ABSTRACT**

According to FAO's data for 2019, Turkey constitutes 1% of the goat population and 2.9% of the goat milk production in the world. In Turkey, 577209 tons of goat milk was obtained from 5471086 nimals milked in 2019. In the same year, goat milk constituted %2.51 of Turkey's total milk production (22960379 tons). With the recent economic value of goat breeding and goat milk, it is seen that publications and researches on this subject have increased. After the goat products gained importance and could be an alternative source of income, today, farmers, industrialists and consumers show more interest in goat milk and products and take into account the researches in this direction. In Turkey, different applications is organized to encourage for farmers and entrepreneurs who invest in this area for the development of goat breeding in recent years. Sustainability in goat breeding; it is affected by economic, cultural, political and socio-economic factors. For this reason, examining the factors affecting sustainability in goat breeding is of importance at the stage of designing policies to be followed. The aim of this study is to examine developments in goat milk production in Turkey and make some evaluations on the future. The main material of the study is the data obtained from FAO, TURKSTAT, the Ministry of Agriculture and Forestry and the results obtained from previous researches on the subject. The statistical data collected are arranged in tables and interpreted by

calculating percentages and indexes. In order to ensure the economic sustainability of milk production in goat breeding, measures should be taken to increase milk production income and reduce feed costs and necessary arrangements should be made in order for the breeders to benefit from more supports. Support policies for goat breeding should be reviewed and it should be ensured that the supports are increased to the levels of animal husbandry support in the EU.

**Keywords:** *small ruminant, goat breeding, goat breeding economics, goat milk, goat cheese.*

**CURRENT SITUATION AND FUTURE OF SHEEP'S MILK PRODUCTION IN TURKEY  
TÜRKİYE'DE KOYUN SÜTÜ ÜRETİMİNİN MEVCUT DURUMU VE GELECEĞİ****Turğay TAŞKIN***Ege Üniversitesi Ziraat Fakültesi Zootečni Bölümü, ORCID: 0000-0001-8528-9760***Çağrı KANDEMİR***Ege Üniversitesi Ziraat Fakültesi Zootečni Bölümü, ORCID: 0000-0001-7378-6962***Sait ENGİNDENİZ***Ege Üniversitesi Ziraat Fakültesi Tarım Ekonomisi Bölümü, ORCID: 0000-0002-7371-3330***Nedim KOŞUM***Ege Üniversitesi Ziraat Fakültesi Zootečni Bölümü, ORCID: 0000-0002-8253-5337***ABSTRACT**

Turkey has an important place in the presence of sheep in the world and EU countries. In our country, there has been a 32% throw approximately 1980-2014 years. Sheep milk production in our country is 1521455 tons as of 2019. This value constitutes 6.62% of our total milk production. The number of dairy sheep has also increased, especially since 2010, and this number reached 20 million heads in 2019. The prior period in livestock breeding sheep as a least developed country, despised nowadays has become one of Turkey's rising values. When milk productivity in Turkey, there has been an increase in the long and medium-term. The yield per cow milked has increased by 5.8% in the last five years and has been calculated as 3.143 lt/head /year in 2017. Dairy exports in Turkey were realized as 40.6 thousand tons as of 2017, and 33.4 million dollars in export revenue were obtained. As of 2017, 85.6% of milk exports are made to Qatar (54.9%), Iraq (23.1%), and Libya (7.6%). Exports of dairy products in Turkey amounted to 151 thousand tons in 2017. In the same year, 81.9% of dairy products export concentrated on milk powder (21.6%), cheese (31.9%), and whey (28.3%). The import of dairy products increased by 11% in the last 2000-2017 period to 20.3 thousand tons and the import was mainly made of butter (48.2%) and cheese (45.9%). The most important input item affecting the cost in dairy sheep and goat farms consists of feed cost. It has a share of 50%-70% in cost items. Labour costs take second place and constitute approximately 15-20% of the milk cost and the other expenses 20-25% of the costs. In this paper; after examining the sheep's milk production in Turkey according to the existing situation in the products derived from sheep's milk consumption, price supports made of sheep's milk cases are dealt with. Finally, some technical and economic suggestions related to the issue regarding the solution of the problems encountered in the production and marketing of sheep milk are included.

**Keywords:** *Sheep milk, milk production, sheep milk products, milk marketing.*

**ÖZET**

Türkiye koyun varlığında dünya ve AB ülkeleri içinde önemli bir yere sahiptir. Ülkemizde 1980-2014 yılları arasından %32'lik bir atış olmuştur. Ülkemizde koyun sütü üretimi 2019 yılı itibariyle 1521455 ton 'dur. Bu değer toplam süt üretimimizin %6.62'sini oluşturmaktadır. Sağmal koyun sayısında da özellikle 2010 yılından itibaren artış olup 2019 yılında bu sayı yaklaşık 20 milyon başa yaklaşmıştır. Geçmiş dönemlerde az gelişmiş ülke hayvancılığı olarak hor görülen küçükbaş hayvancılık bugün Türkiye'nin yükselen değerlerinden biri haline gelmiştir. Türkiye'de süt verimliliğine bakıldığında, uzun ve orta vadede artış yaşanmıştır. Sağılan inek başına verim son beş yıl içerisinde %5,8 oranında artarak 2017 yılında 3.143 lt/baş/yıl olarak hesaplanmıştır. Türkiye'de süt ihracatı 2017 yılı itibariyle 40,6 bin ton olarak gerçekleşmiş ve 33,4 milyon dolar ihracat geliri elde edilmiştir. 2017 yılı itibariyle süt ihracatının %85,6'sının Katar'a (%54,9), Irak'a (%23,1) ve Libya'ya (%7,6) yapılmaktadır. Türkiye'de süt ürünleri ihracatı 2017 yılında 151 bin ton olarak gerçekleşmiştir. Aynı yılda süt ürünleri ihracatının %81,9'luk bölümü süt tozu (%21,6), peynir (%31,9) ve peyniraltı suyu (%28,3)'nda yoğunlaşmıştır. Süt ürünleri ithalatı ise son 2000-2017 döneminde %11 artarak 20,3 bin ton olarak gerçekleşmiş ve ithalat ağırlıklı olarak tereyağı (%48,2) ve peynir (%45,9)'de yapılmıştır. Küçükbaş süt hayvancılığı işletmelerinde maliyeti etkileyen en önemli girdi kalemi yem olup maliyet kalemleri içerisinde %50-70'lik bir paya sahiptir. İşçilik masrafları ise ikinci sırada yer almakta ve süt maliyetinin yaklaşık yüzde 15-20'sini, diğer masraflar ise maliyetin yaklaşık %20-25'ini

oluřturmaktadır. Bu makalede; Trkiye’de koyun st retiminin mevcut durumu yıllara gre incelendikten sonra koyun stnden elde edilen rnlerin tketim, fiyat durumu ile koyun stne yapılan desteklemeler ele alınmıřtır. Son olarak da koyun st retimi ve pazarlanmasında yařanan sorunların zmne ynelik konuyla ilgili bazı teknik ve ekonomik nerilere yer verilmiřtir.

**Anahtar kelimeler:** *Koyun st, st retimi, koyun st rnleri, stn pazarlanması.*

**BOR EKSİKLİĞİ VE TOKSİSİTESİ KOŞULLARI ALTINDA YETİŞTİRİLEN BUĞDAYIN FİZYOLOJİK DEĞİŞİKLİKLERİ**

PHYSIOLOGICAL CHANGES OF WHEAT GROWN UNDER BOTH DEFICIENCY AND TOXICITY CONDITIONS OF BORON

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**ABSTRACT**

In the soils, boron exists mainly as boric acid. Under high rainfall conditions, boric acid leach easily that leads deficiency, whereas under low rainfall conditions insufficient leaching of boric acid leads toxicity. Boron deficiency as well as toxicity is a worldwide problem that reduces significantly crop yields in agriculture. Boron content of the soil is very important because it leads boron accumulation in the crop. Toxic boron content has different effects on plant physiological and biochemical processes including disruption of growth, cell wall development, and cellular division as well as reduction in chlorophyll contents and photosynthetic rates. Deficiency of boron has also many deteriorative effects on plants due to lack of an essential nutrient. The aim of this study was to evaluate the boron toxicity accumulation in the leaves, to compare the effects of toxicity and deficiency of boron and to understand the deteriorative effects of both boron deficiency and toxicity on some physiological parameters of wheat. In this study, photosynthetic performance, pigment contents, ion leakage, lipid peroxidation and leaf boron content were measured after 7 days application of 0 mM for deficiency treatment and 10 mM of boron for toxicity treatment in half strength Hoagland solution at optimum conditions (at 25°C, 250  $\mu\text{mol m}^{-2}\text{s}^{-1}$  light intensity, 16 hour light/8 hour dark, %40-50 humidity) in the controlled growth chamber. PSII photochemical activity of the leaves was obtained by chlorophyll a fluorescence measurement. Both deficiency and toxicity treatments resulted in chlorosis of leaves. Therefore, the chlorophyll pigments levels and photosynthetic capacity of the leaves decreased. Both deficiency and toxicity treatments lead abiotic stress determined by higher membrane disorder and lower photosynthetic activity. These results showed that grown in either boron toxic or deficiency soils may decrease the productivity of wheat.

**Keywords:** *Triticum aestivum L., Boron deficiency, Boron toxicity, Photosynthetic activity.*

**ÖZET**

Topraklarda boron genellikle borik asit olarak bulunmaktadır. Aşırı yağış koşulları altında, borik asit topraktan kolayca süzülerek eksikliğe neden olurken, düşük yağış koşullarında yeteri miktarda süzülmemeyerek boric asit toksisitesine neden olur. Bor eksikliği ve toksisitesi tarımda ürün verimliliğini azaltan dünya çapında bir problemdir. Toprağın bor miktarı üründe bor birikimine neden olduğu için oldukça önemlidir. Toksik bor miktarının bitkinin fizyolojik ve biyokimyasal süreçleri üzerinde, büyümenin bozulması, hücre duvarı gelişimi ve hücresel bölünmenin yanı sıra klorofil içeriklerinde ve fotosentetik oranlarında azalma gibi farklı etkileri vardır. Bor eksikliğinin, temel bir besin maddesi eksikliğinden dolayı bitkiler üzerinde pek çok olumsuz etkisi vardır. Bu çalışmanın amacı, yapraklarda bor toksisitesi birikimini değerlendirmek, toksisite ve bor noksanlığının etkilerini karşılaştırmak ve hem bor noksanlığının hem de toksisitenin buğdayın bazı fizyolojik parametreleri üzerindeki bozucu etkilerini anlamaktır. Bu çalışmada, fotosentetik performans, pigment miktarı, iyon sızıntısı, lipid peroksidasyonu ve yaprak bor içeriği 7 gün uygulanan 0 mM (noksanlık) ve 10 mM (toksisite) bor uygulamasından sonra ölçülmüştür. Çalışma yarım kuvvet Hoagland solüsyonu ile optimum koşullarda (25°C, 250  $\mu\text{mol m}^{-2}\text{s}^{-1}$  ışık yoğunluğu, 16 saat ışık/8 saat karanlık, %40-50 nem) kontrollü iklim kabininde gerçekleştirilmiştir. Yaprakların PSII fotokimyasal aktivitesi klorofil a floresansı ile belirlenmiştir. Hem toksisite hem de noksanlık uygulamaları yapraklarda klorozis ile sonuçlanmıştır. Bu nedenle yaprakların klorofil pigment seviyeleri ve fotosentez kapasitesi azalmıştır. Hem eksiklik hem de toksisite uygulamaları, daha yüksek membran bozukluğu ve daha düşük fotosentetik aktivite ile belirlenen abiyotik strese neden olmuştur. Bu sonuçlar, bor toksik veya noksan topraklarda yetişen buğdayın verimini düşürebileceğini göstermiştir.

**Anahtar Kelimeler:** *Triticum aestivum L., Bor eksikliđi, Bor toksisitesi, Fotosentetik aktivite.*

**INTRAOPERATIVE EFFECTS OF INTRATESTICULAR LIDOCAINE IN CATS WITH XYLASINE-KETAMINE ANESTHESIA UNDERGOING ROUTINE CASTRATION**

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**ABSTRACT**

This study aimed to evaluate the effects of intratesticular lidocaine on intraoperative nocifensive responses in cats under xylazine-ketamine anesthesia experiencing elective castration. Cats between the age of six months and three and half years were eligible for inclusion and accepted for elective castration. Cats were arbitrarily included into treatment group: a xylazine-ketamine group. Cats received a slow injection of 1 mg/kg lidocaine (2% lidocaine hydrochloride) into the body of right testis. In addition to clinical monitoring, the electrocardiogram, respiration frequency (*f*R), heart rate (HR), blood pressure, pulse oximetry and rectal temperature were monitored continuously via a multi-parameter monitor. *f*R values were significantly higher than baseline at time points T1 and T2 in group 1. Two cat's *f*R and HR values were increased by 20% in group following the ligation procedure (T2 time point). These findings propose that intratesticular lidocaine is a beneficial analgesic method in cats with anesthetized xylazine-ketamine experiencing elective castration and might be accepted as a supplement to standard anesthetic practice.

**Keywords:** *Castration, Cat, Intratesticular injection, Local anesthetic*

**INTRAOPERATIVE EFFECTS OF INTRATESTICULAR LIDOCAINE IN CATS WITH XYLASINE-PROPOFOL ANESTHESIA UNDERGOING ROUTINE CASTRATION**

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**ABSTRACT**

This study aimed to evaluate the effects of intratesticular lidocaine on intraoperative nocifensive responses in cats under xylazine-propofol anesthesia experiencing elective castration. Cats between the age of nine months and three years were eligible for inclusion and accepted for elective castration. Cats were arbitrarily included into treatment group: a xylazine-propofol group. Cats received a slow injection of 1 mg/kg lidocaine (2% lidocaine hydrochloride) into the body of right testis. In addition to clinical monitoring, the electrocardiogram, respiration frequency ( $f_R$ ), heart rate (HR), blood pressure, pulse oximetry and rectal temperature were monitored continuously via a multi-parameter monitor. There were no statistically significant distinctions in  $f_R$  value among baseline and T1, T2, T3, or T4 in the group. Two cat's  $f_R$  and HR values were increased by 20% in group following the ligation procedure (T2 time point). These findings propose that intratesticular lidocaine is a beneficial analgesic method in cats with anesthetized xylazine-propofol experiencing elective castration and might be accepted as a supplement to standard anesthetic practice.

**Keywords:** *Castration, Cat, Intratesticular injection, Local anesthetic.*



## SÜT SIĞIRLARININ AMİNO ASİT BESLENMESİ

### AMINO ACID NUTRITION FOR DAIRY CATTLE

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#### **ABSTRACT**

Crude protein (CP) and amino acid (AA) nutrition in dairy cows has several important points: Rumen degradable protein (RDP) is required by the rumen microorganisms and AA is required by the cow. Therefore, it is important to consider amino acids, not CP, for dairy cows. Additionally, methionine and lysine are the most restrictive AA and methionine more restrictive than lysine. Histidine has also been shown to be a potential limiting AA after lysin and methionin. Balancing the lysine and methionine levels of the diet can offer significant opportunities to minimize the risk of AA deficiencies and for reducing protein needs. Recent research indicates that transition cows may benefit the most from balancing for limiting AA. For example, supplementing high-Lys diets with rumen-protected Met not only resulted in significant increases in DMI, milk yield, and milk protein concentrations but measurements of liver function, inflammation, and oxidative stress also revealed improved immuno-metabolic status. However, the metabolic bioavailability levels of commercial methionine and lysine additives protected from ruminal fermentation to be used in nutrition should be known. As a result, diets with balanced AA levels are a contributing factor to higher milk yield, higher milk composition content and higher herd profitability in dairy cattle.

**Keywords:** *Dairy cattle, amino acid, nutrition.*

#### **ÖZET**

Süt ineklerinde ham protein (HP) ve amino asit (AA) beslenmesinin birkaç önemli noktası vardır: Rumende parçalanabilir protein (RDP) rumen mikroorganizmaları için gereklidir ve AA inek için gereklidir. Bundan dolayı süt ineği için HP değil, amino asitlerin dikkate alınması önemlidir. Ek olarak, metiyonin ve lizin en sınırlayıcı AA'dır ve metiyonin lizinden daha sınırlayıcıdır. Histidinin, lizin ve metiyoninden sonra potansiyel bir sınırlayıcı AA'dır. Diyetin lizin ve metiyonin düzeyini dengelemek, AA eksikliği yaşayan ineklerin riskini en aza indirmek ve protein ihtiyacını azaltmak için önemli fırsatlar sunabilir. Son araştırmalar, AA'yı sınırlamak için dengelemeden en çok geçiş ineklerinin fayda sağlayabileceğini göstermektedir. Örneğin, yüksek Lys diyetlerini rumen korumalı Met ile takviye etmek, yalnızca DMI, süt verimi ve süt proteini konsantrasyonlarında önemli artışlarla sonuçlanmakla kalmadı, aynı zamanda karaciğer fonksiyonu ölçümleri, iltihaplanma ve oksidatif stres ayrıca immüno-metabolik durumun iyileştiğini de ortaya koymuştur. Ancak, beslemede kullanılacak ruminal fermantasyondan korunmuş ticari metiyonin ve lizin katkılarının metabolik biyoyararlanım düzeyleri bilinmelidir. Sonuç olarak, AA düzeyi dengelenmiş diyetler, süt sığırlarında daha yüksek süt verimi, daha yüksek süt kompozisyonu içeriği ve daha fazla sürü karlılığına katkıda bulunan bir faktördür.

**Anahtar kelimeler:** *Süt sığırı, amino asit, besleme.*

**SÜT İNEKLERİNDE SUBKLİNİK HİPOKLSEMİ RİSKİNİ AZALTAN DİYET FAKTÖRLERİNİN ETKİNLİĞİNİN DEĞERLENDİRİLMESİ**

EVALUATION OF THE EFFECTIVENESS OF DIET FACTORS THAT REDUCED THE RISK OF SUBCLINICAL HYPOCALCEMIA IN DAIRY CATTLE

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**ABSTRACT**

Hypocalcemia is a disease characterized by a decrease in the blood Ca level in cows prior to calving and is most common in high milk yielding cows in the third and subsequent lactation. Dairy cows with blood Ca concentrations at or below 8.0 mg/dL (2.0 mmol/L) but not showing clinical signs are considered subclinically hypocalcemic. The initiation of lactation, a large increase in the Ca requirement of the cow for milk production occurs (about 20 to 30 grams of Ca per day). Thus, metabolic adaptations must take place to support the increased need for Ca. If they do not take place soon enough or are of insufficient magnitude, the concentration of Ca in the blood drops below a critical threshold and clinical and subclinical hypocalcaemia can result. Several dietary factors that affect different aspects of Ca metabolism are known to reduce the incidence of milk fever but no single approach has been found suitable for all husbandry and farming settings. There are two main approaches to preventing hypocalcemia - pre-calving dietary manipulation and post-calving strategic oral Ca supplementation. (i) Low Ca diets pre-fresh: One potential way of preventing parturient hypocalcemia in the dairy cow is to feed dry cow diets very low in calcium (<20 g/d); but, because it is difficult to formulate diets sufficiently low in Ca, this principle has been almost abandoned. Recent studies have shown, however, that it is possible to prevent milk fever, as well as subclinical hypocalcemia, by supplementing the dry cow diet with sodium aluminium silicate (zeolite A), which has the capacity to bind Ca. (ii) Low K forages/diets pre-fresh: In this strategy, dietary K is to keep the blood pH close to the NRC (1%) requirements, which directs the blood pH towards the metabolic alkalosis and reduces the functionality of the parathyroid hormone and ultimately suppresses bone Ca mobilization. (iii) Dietary feeding (-150 to 200 meq / kg DM) formulated with negative cation-anion (DCAD) balance during the last 21 days of pregnancy is one of the effective protection methods. (iv) Oral or injectable applications of vitamin D or its hydroxylated forms and calcitriol before the east cause hypercalcemia by affecting the gastrointestinal absorption. However, the fact that effective doses are very close to toxic doses and the administration depends on the time of delivery limits its applicability in practice. (v) Mg, which is necessary for parathyroid hormone secretion and increases tissue sensitivity to parathyroid hormone, into the diet at birth reduces the risk of hypocalcemia. (vi) Oral sources of calcium: After birth, oral Ca supplements provide increased blood Ca, helping to alleviate the negative effects of subclinical hypocalcemia on health and productivity.

**Keywords:** *Dairy cattle, Subclinical Hypocalcemia, Diet strategies*

**ÖZET**

Hipokalsemi, esas olarak doğumdan sonra ineklerde kan Ca düzeyinin düşmesi ile karakterize bir hastalıktır ve en çok üçüncü ve sonraki laktasyondaki yüksek süt verimli ineklerde görülür. Kan Ca konsantrasyonu 8.0 mg/dL (2.0 mmol/L) veya altında olan ancak klinik belirtiler göstermeyen süt inekleri subklinik hipokalsemik kabul edilir. Laktasyonun başlaması ile süt üretimi için ineğin Ca ihtiyacında büyük bir artış meydana gelir (yaklaşık 20 ila 30 gram/gün). Bu nedenle, Ca ihtiyacını desteklemek için metabolik adaptasyonlar gerçekleştirilmelidir. Bu metabolik adaptasyonlar yeterince erken gerçekleşmezlerse veya yetersiz büyüklükteyse, kan Ca konsantrasyonu kritik eşik altına düşer ve klinik- subklinik hipokalsemi ortaya çıkabilir. Çeşitli diyet uygulamaları Ca metabolizmasının farklı yönlerini etkileyen hipokalsemi insidansını azalttığı bilinmektedir. Ancak tüm süt sığırcı işletmeleri için uygun tek bir diyet yaklaşımı yoktur. Hipokalseminin önlenmesine yönelik iki ana yaklaşım vardır - buzağılama öncesi diyet manipülasyonu ve buzağılama sonrası stratejik oral Ca takviyesi. (i) Prepartum diyetinde Ca düzeyinin düşürülmesi: Süt ineklerinde hipokalsemiyi önlemenin potansiyel bir yolu, C bakımından çok düşük (<20 g / gün) kuru dönem inek diyeti ile

beslemektir; ancak Ca bakımından yeterince düşük diyetleri formüle edilmesi zor olduğundan, bu ilke neredeyse terk edilmiştir. Fakat, son çalışmalar, Ca bağlama kapasitesine sahip rumende korunmuş pirinç kepeği ve zeolit eklenmiş kuru dönem diyetleri ile subklinik hipokalseminin önlenilebileceğini göstermiştir. (ii) K içeriği düşük prepartum kaba yemler/diyetler: Bu stratejide, kan pH'ını metabolik alkalozaya doğru yönlendiren ve parathormonun işlevselliğini azaltan ve sonuçta kemik Ca mobilizasyonu baskılayan K'nın diyetteki düzeyinin NRC (%1) gereksinimlerine yakın tutmaktır. (iii) Negatif katyon-anyon diyeti (DCAD): Gebeliğin son 21 gün boyunca negatif katyon-anyon dengesi ile formüle edilen diyetle besleme (-150 -200 arası meq/kg KM) etkili koruyıcı yöntemlerinden biridir. (iv) Doğudan öncesi D vitamini veya hidroksile formları ve kalsitriol oral veya enjektabl uygulamalar gastrointestinal absorpsiyona etki ederek hiperkalsemiye neden olur. Ancak etkili dozların toksik dozlara çok yakın olması ve uygulamanın doğum zamanına bağlı olması pratikte uygulanabilirliğini kısıtlar. (v) Paratiroid hormonu salgılanması için gerekli olan ve paratiroid hormonuna doku duyarlılığını artıran Mg'nin doğumda diyetle eklenmesi hipokalsemi riskini azaltır. (vi) Oral Ca kaynakları: Doğumdan sonra oral Ca takviyeleri kan Ca artırmak subklinik hipokalseminin sağlık ve verim üzerindeki olumsuz etkilerini hafifletmeye yardımcı olur.

**Anahtar Kelimeler:** *Süt ineği, subklinik hipokalsemi, Diyet stratejileri*

**WOMEN'S BODY IN THE CHALLENGING BETWEEN HEALTHY AND BEAUTY****Kamal KOOHI**

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**ABSTRACT**

In any society, the human body has a physical reality and a social reality. The shape, size, clothing and adornment of the human body is a means of communicating and transmitting information to other members of society. Therefore, the body is a culture and it reflects the basic issues within that culture. The growth of consumer culture, the growth of new technologies in nutrition, health and exercise along with the importance of agency and the body's extreme consumerism, the move from modernity to late modernity are also considered as major social changes that have made the body an important topic in contemporary social and cultural studies. Turner, the founder of body sociology, in his book "Society and the Body" stated that paying attention to beauty and youth in the mass media, increasing interest in youth and trying to maintain it in the non-youth years, managing the body like diets, Cosmetic surgery, exercise, bodybuilding, tattooing and aerobics have been the factors that have expanded the attention of scientists to researching, discussions and debating in the field of the body as a social matter and not merely biological and psychological with a focus on body management.

In the modern world, the importance of cosmetic surgery on different parts of the body, various diets, excessive use of cosmetics, weight control for weight loss and tattoos, all of which are referred to as body management, are not hidden from anyone. The visualization of aesthetic criteria in modern consumer society has led different sections of society to tend to these mentioned behaviors and actions. this tendency, in turn, has paved the way for a dilemma called the "paradox of health value and beauty value." many of today's body management behaviors include; a variety of cosmetic surgeries, the use of cosmetics on the face and body are known to be harmful to human health. However, the tendency of people, especially women, to engage in such behaviors has increased day by day due to the false propaganda of the mass media, even leading to its spread among men and a new chapter has been provided in the beauty industry as "men's beauty". such behaviors with the body have led to a reduction in the gap between masculinity and femininity. In general, in modern industrial societies, especially in developing and developed societies, the value of beauty is sometimes more important than the value of health, and this has led to a variety of changes and corrections in the body from cosmetic surgery to tattoos and the like have often been identified dangerous to human health. However, the trend of changing and modifying the body in societies indicates that it is increasing.

**Keywords;** women's body, healthy, beauty, body management, cosmetic surgery.

2017 AVRUPA KIŞ GENÇLİK OLİMPİK FESTİVALİ SÜRESİNCE OLUŞAN SPOR  
YARALANMASI OLGULARININ ANALİZİ  
EXAMINATION OF SPORT INJURIES DURING 2017 WINTER EUROPEAN YOUTH  
OLYMPIC FESTIVAL

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**ABSTRACT**

**Introduction:** In this study, we evaluated sports injuries in 2017 Winter European Youth Olympic Festival (W-EYOF). We aimed to analyze and explain the, characteristics and types of sports injuries that occur during the games.

**Materials an Methods:** In this retrospective descriptive study, we evaluated the admissions of Olympic athletes to the emergency room with sport injuries between 11-18 February 2017, retrospectively. We evaluated the age, gender, sports branch, injury site and treatment processes of all patient. Whether the frequency and the types of injuries vary depending on the sports branches were analyzed.

**Results:** 644 athletes participated to W-EYOF2017, and 38 sport injuries were identified during the competitions held in 9 sport branches. The injury prevalence was 5.88 per 1000 athletes throughout the games. According to gender, the rate of injury was 9,44% in female and 3,57% in male. Among the injuries, knee was seen most frequently with a rate of 31.6%. The anatomical regions where sports injuries were detected were the pelvis (15.8%), the shoulder (15.8%), and the wrist and hand (10.5%). The most common injuries were seen in snowboarding (42.1%), Alpine skiing (28.9%) and ice hockey (21.2%). When patients are classified according to the type of injury, 78.4% was soft tissue trauma. These patients were discharged with recommendations such as rest, immobilization, cold application and elevation (RICE). The rate of cases requiring surgical intervention in all injuries was 7.89%. The prevalence of injuries requiring surgical intervention in the athlete population is 4.5 per 100,000 people.

**Conclusion:** Athletes have a high risk of injury in sports based on physical contact and challenge or requiring high effort, speed, and torque. In this context the most commonly injured anatomical region is the knee. Measures can be planned to reduce injuries in competitions such as Alpine

**Keywords:** *Emergency, olympics, winter, trauma, sport injury*

**ÖZET**

**Giriş:** Triyaj sistemleri, acil servis bekleme alanlarında hastalığın Giriş: Bu çalışmada 2017 Kış Avrupa Gençlik Olimpik Festivali (W-EYOF) boyunca mücadele eden atletlerin spor yaralanması açısından acil servis başvuruları incelenmiştir. Oyunlar boyunca oluşan spor yaralanmalarının oranlarını, özelliklerini ve tiplerini analiz etmek ve açıklamak amaçlanmıştır.

**Gereç ve Yöntemler:** Bu retrospektif tanımlayıcı çalışmada 11-18 Şubat 2017 tarihleri arasında olimpiyat atletlerinin akreditasyon numarası ile acil servise yaptıkları başvuruları geriye dönük olarak değerlendirildi. Başvuruların tümü analiz edilerek spor yaralanmaları değerlendirmeye alındı. Çalışmaya dahil edilen tüm hastaların yaş, cinsiyet, yarıştığı spor dalı, yaralanma bölgesi ve tedavi süreçleri değerlendirmeye alındı. Yarışılan spor dallarındaki yaralanma sıklığı ve yaralanma bölgeleri, yaralanma tiplerinin spor dallarına bağlı değişiklik gösterip göstermediği değerlendirildi.

**Bulgular:** W-EYOF 2017'ye toplam 644 atlet katılmıştır. 9 spor dalında gerçekleştirilen yarışmalar boyunca toplam 38 spor yaralanması vakası tespit edildi. Tüm oyunlar boyunca her 1000 atlet için yaralanma prevalansı 5.88 olarak bulundu. Cinsiyete göre yaralanma oranları kadınlar atletlerde %9,44 iken, erkek atletlerde %3,57 tespit edildi. Yaralanmalar içinde en sık %31,6 oranıyla diz yaralanması görüldü. Sıklık sırasına göre pelvis yaralanmaları %15,8, omuz yaralanmaları %15,8 ve

el ve el bilek yaralanmaları %10,5 olarak bulundu. Spor dalları içinde en sık yaralanma snowboard (%42,1), Alp disiplini (%28,9) ve buz hokeyinde (%21,2) görülmüştür. Hastalar yaralanma tipine göre sınıflandırıldığında %78,4'ünün yumuşak doku travması grubuna dahil olduğu ve bu hastaların istirahat, soğuk uygulama, elevasyon ve immobilizasyon gibi öneriler ile taburcu edildiği tespit edildi. Yaralanmaların tümünde cerrahi müdahale gerektiren vakaların oranı %7,89 bulundu. Cerrahi müdahale gerektiren yaralanmaların atlet popülasyonu içindeki prevalansı 100.000 kişide 4,5 olarak tespit edildi.

**Sonuç:** Atletlerin fiziksel temas ve mücadeleye dayalı veya yüksek efor, hız ve dönme momenti gerektiren spor dallarında yaralanma riski fazladır. Bu bağlamda en sık yaralanan anatomik bölgenin diz olduğu bulunmuştur. Alp disiplini, snowboard ve buz hokeyi gibi yarışmalarda yaralanmaları azaltmaya yönelik tedbirler planlanabilir.

**Anahtar kelimeler:** *Acil, olimpiyat, kış, travma, spor yaralanması*

**İŞ SAĞLIĞI ve GÜVENLİĞİ ALANINDA ULUSLARASI SÖZLEŞMELER ve KURULUŞLAR**  
INTERNATIONAL CONTRACTS ON OCCUPATIONAL HEALTH AND SAFETY and INSTITUTIONS

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**ÖZET**

Çalışma yaşamımızda standart uygulamaların yapılması ve olası karmaşaların önüne geçilebilmesi amacıyla yasal birtakım düzenlemeler yapılmıştır. Yasal düzenlemelerin yanı sıra konuyla özel olarak ilgilenmek üzere Resmi Kurumlar kurulmuştur. Öte yandan Uluslararası alanda da iş sağlığı ve güvenliği ile ilgili özel ve resmi kurumlar da zaman içinde kurulmuştur. Ülkemiz bu kurumlardan bazılarının üyesi olmuştur. Yine Uluslararası alanda iş sağlığı ve güvenliği ile ilgili pek çok sözleşmeye de ülkemiz imza atmıştır. İş sağlığı ve güvenliği alanındaki Uluslararası sözleşmeler şu şekilde sıralanabilir: Uluslararası Çalışma Örgütü, Dünya Sağlık Örgütü, İş Sağlığı ve Güvenliği Ajansları, Birleşmiş Milletler Çevre Programı, Uluslararası Atom Enerjisi Ajansı, Birleşmiş Milletler Sanayi Geliştirme Örgütü, Uluslararası Çalışma Örgütü, amacı Birinci Dünya Savaşından sonra giderek büyüyen sorunlara yönelik sosyal reform niteliğinde çözümler bulmak ve reformların uluslararası düzeyde uygulanmasını sağlamaktır. İkinci Dünya Savaşından sonra, Filadelfiya Bildirgesi ile birlikte, Uluslararası Çalışma Örgütü'nün temel amaç ve ilkeleri yeniden oluşum ve genişleme sürecine girmiştir. Bildirge, savaş sonrası ulusal bağımsızlıkla birlikte büyümeyi öngörmüş, gelişmiş dünya ile büyük ölçekte teknik işbirliğinin başlangıcının müjdecisi olmuştur. Bazı önemli Uluslararası Çalışma Örgütü sözleşmeleri bazıları şunlardır: Zorla Çalıştırma Sözleşmesi, Örgütlenme Özgürlüğü ve Örgütlenme Hakkının Korunması Sözleşmesi, Örgütlenme ve Toplu Sözleşme Hakkı Sözleşmesi, Ücret Eşitliği Sözleşmesi, Zorla Çalıştırmanın Yasaklanması Sözleşmesi, Ayrımcılık Sözleşmesi, Asgari Yaş Sözleşmesi, Çocuk İşçiliğinin En Kötü Biçimleri Sözleşmesi, İş Sağlığı ve Güvenliği ve Çalışma Ortamına İlişkin Sözleşme, İş Sağlığı Hizmetlerine İlişkin Sözleşme, Tehlikeli Kimyasallar ile ilgili sözleşme. Dünya Sağlık Örgütü, sağlık alanında uluslar arası nitelik taşıyan çalışmalarda yönetici ve koordinatör makamı sıfatı ile hareket etmek amacıdır. İş Sağlığı ve Güvenliği Ajansları'nın kuruluş amacı, işyeri güvenliği ve işçi sağlığı hakkındaki yasal düzenlemeleri çıkarmaktır.

**Anahtar Kelimeler:** *Uluslararası Çalışma Örgütü, Dünya Sağlık Örgütü, İş Sağlığı ve Güvenliği Ajansları*

**ABSTRACT**

Some legal regulations have been made in order to make standard practices in our working life and to prevent possible confusion. In addition to legal regulations, Official Institutions have been established to deal with the issue specifically. On the other hand, private and public institutions related to occupational health and safety have also been established over time in the international arena. Our country has become a member of some of these institutions. Our country has also signed many conventions related to occupational health and safety in the international field. International Labor Organization, World Health Organization, Occupational Health and Safety Agencies, United Nations Environment Program, International Atomic Energy Agency, United Nations Industrial Development Organization, International Labor Organization, whose aim was to find social reform-like solutions to the growing problems after the First World War and to ensure that the reforms were implemented

internationally. After the Second World War, with the Philadelphia Declaration, the main objectives and principles of the International Labor Organization entered the process of re-formation and expansion. The Declaration envisaged growth with post-war national independence, heralded the beginning of large-scale technical cooperation with the developed world. Some of the important International Labor Organization conventions are: Forced Labor Convention, Convention on Freedom of Association and Protection of the Right to Association, Convention on the Right of Association and Collective Bargaining, Equality of Wages Convention, Convention on Prohibition of Forced Labor, Discrimination Convention, Convention on Minimum Age, Worst Forms of Child Labor Convention , Contract on Occupational Health and Safety and Working Environment, Contract on Occupational Health Services, Contract on Hazardous Chemicals. The World Health Organization aims to act as a manager and coordinator in the field of health in international studies. The purpose of the Occupational Health and Safety Agencies is to issue legal regulations on workplace safety and worker health.

**Keywords:** *International Labor Organization, World Health Organization, Occupational Health and Safety Agencies*



ÇALIŞMA YAŞAMINDA ÖZEL RİSK GRUPLARI  
SPECIAL RISK GROUPS IN WORKING LIFE

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**ABSTRACT**

There are groups that have different risks in terms of health and safety in working life and need special protection. These are; children or young workers, women workers, elderly workers, disabled workers, workers with chronic illnesses, or workers with a prior diagnosis or an occupational disease. In this context, since the personality traits of the employees are a risk factor in themselves, the personal characteristics of the employees should be taken into consideration in order to achieve more positive results in terms of occupational health and safety, and the situation of the groups that should adopt special policies in work and life should be focused on. Article 50 of our Constitution states, "No one may be required to perform work unsuited to his age, sex, and capacity. Minors, women and persons with physical or mental disabilities, shall enjoy special protection with regard to working conditions. All workers have the right to rest and leisure. Rights and conditions relating to paid weekends and holidays, together with paid annual leave, shall be regulated by law." provision is included. In accordance with the Occupational Health and Safety Law No. 6331, the employer is obliged to observe the situation of female employees and groups that require special policies such as young, elderly, disabled, pregnant or breastfeeding employees while performing risk assessment. It is important to determine the specific risk factors of the workers in the population that we have determined to need special policies, to evaluate the existing regulations in our laws, and to determine the policies to be implemented to what extent we can ensure the occupational health and safety of the workers. Based on all these, recommendations are determined for the measures to be taken for employees with special protection. In this study, our legal obligations and the measures that can be taken are examined by considering the above mentioned population specific risk factors of the workers, which we determined to be in groups that require special policies in terms of occupational health and safety.

**Keywords:** *Risk groups, Child labor, Work life, Work safety, Special protection.*

**ÖZET**

Çalışma yaşamında sağlık ve güvenlik açısından farklı riskleri olan ve özel olarak korunması gereken gruplar vardır. Bunlar; çocuk veya genç işçiler, kadın işçiler, yaşlı işçiler, engelli işçiler, kronik hastalığı olan işçiler veya önceden teşhis edilmiş veya meslek hastalığı teşhisi konmuş işçiler olarak sıralanabilir. Bu bağlamda, çalışanların kişilik özellikleri bizzat risk faktörü olduğu için, iş sağlığı ve güvenliği açısından daha olumlu sonuçlara ulaşmak amacıyla çalışanların kişisel özellikleri dikkate alınmalı ve iş hayatı ile yaşamda özel politikalar benimsemesi gereken grupların durumuna odaklanılmalıdır. Anayasamızın 50. maddesinde, "Kimse, yaşına, cinsiyetine ve gücüne uymayan işlerde çalıştırılmaz. Küçükler ve kadınlar ile bedenî ve ruhî yetersizliği olanlar çalışma şartları bakımından özel olarak korunurlar." hükmüne yer verilmiştir. 6331 sayılı İş Sağlığı ve Güvenliği Kanunu gereğince de işverene, risk değerlendirmesi yaparken genç, yaşlı, engelli, gebe veya emziren çalışanlar gibi özel politika gerektiren gruplar ile kadın çalışanların durumunu gözetme yükümlülüğü getirilmiştir. Özel politikalara ihtiyaç duyduğunu belirlediğimiz nüfustaki işçilerin, kendilerine özgü

risk faktörlerinin belirlenmesi, kanunlarımızdaki mevcut düzenlemelerin değerlendirilmesi ve işçilerin iş sağlığı ve güvenliğini ne ölçüde sağlayabileceğimiz uygulanacak politikaların belirlenmesinde önem arz eder. Bütün bunlardan hareketle, özel korumaya sahip çalışanlara yönelik alınması gereken önlemler için öneriler belirlenir. Bu çalışmada, iş sağlığı ve güvenliği açısından özel politika gerektiren gruplara girdiğini belirlediğimiz işçilerin, ayrı başlıklar altında ele alıp yukarıda belirtilen popülasyona özgü risk faktörlerini vurgulayarak, yasal yükümlülüklerimiz ve alınabilecek tedbirler incelenmiştir.

**Anahtar Kelimeler:** *Risk grupları, Çocuk işçi, Çalışma hayatı, İş güvenliği, Özel korunma.*

**İNSANLARDA TELOMER VE TELOMERLERLE İLİŞKİLİ HASTALIKLAR:  
TELOMERAPATİLER****TELOMERES AND TELOMER-RELATED DISEASES IN HUMANS: TELOMERAPATHIES****Sacide PEHLİVAN***Istanbul University, İstanbul Medical Faculty, ORCID NO:0000-0003-1272-5845***Fatma Ceren TUNÇEL***Istanbul University, İstanbul Medical Faculty, ORCID NO:0000-0001-6787-2565***Yasemin OYACI***Istanbul University, İstanbul Medical Faculty, ORCID NO:0000-0002-1338-0087***ABSTRACT**

Telomeres (TLs) are repetitive non-coding DNA sequences located at the ends of human chromosomes. Hermann J. Muller, who was first working on *Drosophila melanogaster* (vinegar fly) in 1938, was recognized by observing that the ends of the chromosomes were resistant to mutagenic X-rays and were not erased or inverted due to the presence of cap-like structures covering the endpoints. The inability of cells to divide permanently led researchers to investigate whether telomeres are associated with aging, and in 1971, a researcher named Olovnikov found that somatic cell chromosomes have a limited number of divisions associated with the loss of DNA sequences in the extremities of the TL (telomeres), and that the cells age by crossing this limit claimed that it started. As researchers continue to investigate the roles of telomeres, they have shown that they are of great importance for DNA repair mechanisms, protecting and stabilizing DNA by controlling the number of cell divisions (with replication potential). Differences in enzymes involved in telomere replication are called Telomere Biology Disorders (TBD) or Telomeropathies. Telomeropathies include numerous rare diseases caused by genetic defects in the mechanism of telomerase enzyme or DNA Damage Response (DDR) system. Telomeropathies that are characterized by symptoms resulting in defects (mostly mutations) in the core genes involved in telomere care are classified as primary telomeropathies (Dyskeratosis Congenita), while telomeropathies that express disorders caused by a protein mutation encoded by the gene responsible for DNA repair, not a defect in the genes responsible for telomere maintenance, are classified as secondary telomeropathies (Fanconi Anemia). Primary telomeropathies usually have incomplete penetrance phenotypes such that individuals in the same family with the same mutation can present with different phenotypes, whereas in secondary telomeropathies patients typically have short telomeres and the cells undergo premature aging. This study aims to contribute to the definition and classification of telomeropathies, their relationship with diseases and future studies

**Keywords:** *DDR, TBD, Telomeres, Telomeropathy.*

**ÖZET**

Telomerler (TLs) insan kromozomlarının uçlarında yer alan, tekrar eden non-coding (kodlanmayan) DNA dizileridir. İlk olarak 1938'de *Drosophila melanogaster* (sirke sineği) üzerinde çalışan Hermann J. Muller'in, kromozomların uçlarının mutajenik X-ışınlarına dirençli olduğunu ve uç noktaları örten kapak benzeri yapıların varlığından dolayı silme veya inversiyona uğramadığını gözlemlemesi ile tanındı. Hücrelerin devamlı bölünmemesi araştırmacıları telomerlerin yaşlanma ile ilişkili olup olmadığının araştırılmasına yönlendirdi ve 1971 yılında Olovnikov adında bir araştırmacı, somatik hücre kromozomlarının uç bölgelerinde, yani TL (telomer)'lerde DNA dizilerinin kaybı ile bağlantılı olarak sınırlı sayıda bölünmeye sahip olduğunu ve bu sınırın aşılmasıyla hücrelerin yaşlanmaya başladığını ileriye sürmüştür. Araştırmacılar telomerlerin görevlerinin ne olduğunu araştırmaya devam ederken, DNA tamir mekanizmaları için büyük önem taşıdıklarını, hücre bölünmelerinin sayısını (replikasyon potansiyeli olan) kontrol ederek DNA'yı koruduğunu ve stabilize ettiğini göstermişlerdir. Telomer replikasyonunda görevli olan enzimlerdeki farklılıklara Telomer Biyoloji Bozuklukları (TBD) ya da Telomeropatiler adı verilmektedir. Telomeropatiler, telomeraz enziminin çalışma mekanizmasındaki veya DNA hasar yanıtı (DDR) sistemindeki genetik kusurların neden olduğu çok sayıda nadir hastalıkları içerir. Telomer bakımında yer alan çekirdek genlerindeki

kusurlar (çoğunlukla mutasyonlar) ile sonuçlanan semptomlar ile karakterize edilen telomeropatiler primer (birincil) telomeropatiler (Diskeratoz Konjenita), telomer bakımından sorumlu genlerdeki bir kusuru değil de DNA onarımından sorumlu genin kodladığı protein mutasyonundan kaynaklı bozuklukları ifade eden telomeropatiler ise sekonder (ikincil) telomeropatiler (Fankoni Anemi) olarak sınıflandırılır. Primer telomeropatilerde genellikle aynı mutasyona sahip aynı aile içindeki bireylerin farklı fenotiplerle ortaya çıkabileceği şekilde eksik penetrans fenotiplere sahipken, sekonder telomeropatilerde hastalar tipik olarak kısa telomerlere sahiptir ve hücreler erken yaşlanmaya maruz kalmaktadır. Bu çalışmada, telomeropatilerin tanımlanması, sınıflandırılması, hastalıklarla ilişkisi ve gelecekte yapılacak çalışmalar için katkı sağlamak amaçlanmıştır

**Anahtar Kelimeler:** *DDR, TBD, Telomer, Telomeropati.*

**HÜCRE KÜLTÜRÜ VE HÜCRELERDEKİ MOLEKÜLER MEKANİZMALARIN  
ARAŞTIRILMASINDA KULLANILAN YÖNTEMLER**  
CELL CULTURE AND METHODS USED IN THE STUDY OF MOLECULAR MECHANISMS  
IN CELLS

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**ABSTRACT**

The technique of extracting cells, tissues or organs from an animal or plant and then growing them in an artificial environment to help them survive and / or reproduce can be defined as "Cell Culture". The cultured cells can be divided into three groups according to their origin as primary cells, stem cells and immortalized cell lines. Primary cells; biochemical properties can be defined as the best experimental model for studies that require in vivo properties in terms of having the most similar properties to the tissue from which it originated. Immortalized cell lines; They are groups of cells isolated from different tissues or transformed from a normal cell line by viral methods and capable of unlimited division. They are widely used cell groups in terms of rapid division and reaching density for studies requiring high amount of cells. Stem cells provide superiority over other cell groups in areas such as tissue repair, change and regeneration with their self-renewal, unlimited growth and differentiation properties. Cell culture studies provide excellent model systems for studying the normal physiology and biochemistry of cells (metabolic studies, aging), the effects of drugs and toxic compounds on cells, mutagenesis, and carcinogenesis. It is also used in drug screening and development, and in the large-scale manufacture of biological compounds (eg vaccines, therapeutic proteins). The major advantage of using cell culture for any of these applications is the consistency and reproducibility of the results that can be obtained using a group of clonal cells. While cell culture eliminates ethical problems in the conduct of these studies, the analysis of the molecular mechanisms examined in the studies allows the use of a wide variety of techniques. For example, Sanger and Maxam-Gilbert techniques as DNA sequencing methods, next generation sequencing (NGS) in whole genome and exome sequencing research; RNA sequencing and microarraying in transcriptome stages, Northern blot and microarray methods in mRNA analysis; chromatin precipitation in epigenome research, RNA precipitation in non-coding RNA analysis with bisulfite sequencing and RNA sequencing (RIP-seq) methods; In protein research, techniques such as mass spectrophotometry, co-immunoprecipitation (protein interaction), luciferase analysis (DNA-protein interaction), analysis of biomolecules such as lipids and carbohydrates and chromatographic separation methods such as Gas Chromatography, High Performance Liquid Chromatography, Nuclear Magnetic Resonance for metabolic profiling It can be studied in harmony with cell culture techniques. In this study, currently used methods will be introduced.

**Keywords:** *cell culture, eucaryotic cell, molecular methods, DNA, RNA, protein, microarray.*

**ÖZET**

Bir hayvandan veya bitkiden hücrelerin, dokuların veya organların çıkarılması ve daha sonra bunların hayatta kalmalarına ve / veya çoğalmalarına yardımcı olacak yapay bir ortamda büyütülmeleri tekniği "Hücre Kültürü" olarak tanımlanabilir. Kökenlerine göre kültüre edilen hücreler; primer hücreler, kök hücreler ve immortalize hücre hatları olarak üç grupta incelenebilir. Primer hücreler; biyokimyasal özellikleri köken aldığı dokuya en benzer özellikleri taşıması açısından in vivo özellikleri gerektiren çalışmalar için en iyi deneysel model olarak tanımlanabilir. İmmortalize hücre hatları; farklı dokulardan izole edilen veya normal bir hücre hattından viral yöntemlerle transforme edilmiş ve sınırsız bölünebilme yeteneğine sahip hücre gruplarıdır. Yüksek miktarda hücre gerektiren çalışmalar

için hızlı bölünme ve yoğunluğa ulaşabilmesi açısından yaygın kullanılan hücre gruplarıdır. Kök hücreler, kendini yenileme, sınırsız büyüme ve farklılaşabilme özellikleri doku onarımı, değişimi ve rejenerasyonu gibi alanlarda diğer hücre gruplarına göre üstünlük sağlar. Hücre kültürü çalışmaları hücrelerin normal fizyolojisi ve biyokimyasını (metabolik çalışmalar, yaşlanma), ilaçların ve toksik bileşiklerin hücreler üzerindeki etkilerini, mutagenез ve karsinogenezi incelemek için mükemmel model sistemler sağlar. Ayrıca ilaç taraması ve geliştirilmesinde ve biyolojik bileşiklerin (örneğin aşular, terapötik proteinler) büyük ölçekli imalatında kullanılır. Bu uygulamalardan herhangi biri için hücre kültürü kullanmanın en büyük avantajı, bir grup klonal hücre kullanılarak elde edilebilen sonuçların tutarlılığı ve tekrarlanabilirliğidir. Bu çalışmaların yürütülmesinde hücre kültürü etik sorunları ortadan kaldırmakla birlikte, çalışmalarda incelenen moleküler mekanizmaların analizi çok çeşitli tekniklerin kullanımına olanak sağlar. Örnek olarak DNA dizileme yöntemi olarak Sanger ve Maxam-Gilbert teknikleri, tüm genom ve ekzom dizileme araştırmalarında yeni nesil sekanslama (NGS); transkriptom aşamalarında RNA sekanslama ve mikrodizileme, mRNA analizlerinde Northern Blot ve mikroarray metodları; epigenom araştırmalarında kromatin çöktürme, bisülfid sekanslama ile kodlanmayan RNA analizlerinde RNA çöktürmesi ve RNA sekanslama (RIP-seq) yöntemleri; protein araştırmalarında, kütle spektrofotometresi, ko-immünoçöktürme (protein interaksyonu), lusiferaz analiz (DNA-protein interaksyonu), lipid, karbonhidrat gibi biyomoleküllerin analizleri ve metabolik profillemeye için; Gaz Kromatografisi, Yüksek Performanslı Sıvı Kromatografisi, Nükleer Magnetik Rezonans gibi kromatografik ayırma yöntemleri gibi teknikler hücre kültürü teknikleri ile uyumlu bir şekilde çalışılabilmektedir. Bu çalışmada güncel olarak kullanılan yöntemler tanıtılacaktır.

**Anahtar Kelimeler:** *hücre kültürü, ökaryotik hücre, moleküler metotlar, DNA, RNA, protein, mikroarray*

**COVID-19 PANDEMİSİNDE ACİL HEMŞİRELİĞİ****EMERGENCY NURSING IN COVID-19 PANDEMIC****Asst. Prof. Deniz Zeynep SÖNMEZ***Osmaniye Korkut Ata University, ORCID: 0000-0002-2377-6253***ABSTRACT**

Emergency services are healthcare units that aim to evaluate and stabilize every patient in need of emergency care, especially at risk of death or disability, and therefore have to have qualified personnel with the necessary knowledge and skills. In emergency services, which is a dynamic area that needs to be made and implemented quickly many factors such as crowded, distressed and serious patients, relatives of patients, and lack of space increase the workload and stress burden. Emergency nursing is a specialty in professional nursing that focuses on the care of patients who require urgent medical attention to avoid long-term disability or death. Emergency care nurses are nursing professionals who are undiagnosed, unstable, have medical and surgical problems, and provide the necessary nursing care without delay to individuals of different age groups with different cultural and economic conditions. Although nursing care in emergency care is similar to other units, it has different characteristics in terms of the obligation to provide care to patients who have not been diagnosed yet and who are in critical condition in a complex environment in a limited time. Emergency departments are the most intense units of hospitals, with different types of stressors as well as providing services to a large number of patients and providing the transfer of patients between medical care areas. COVID-19 disease caused by the Sars COV-2 virus, which emerged in Wuhan, China and caused a pandemic in the world in a short time, increased the burden of hospitals all over the world and in our country. Studies show that many emergency services have unfavorable working conditions in the pre-pandemic period. During the pandemic period, in addition to the pre-existing problems, the emergency room staff increased the patient load, problems related to practice due to the insufficient knowledge of the transmission routes of the disease at the beginning, the risk of transmission of the disease, the inadequacy of the physical conditions and the number of personnel due to the increase in the number of patients, He has to struggle with many problems such as living away from home with the worry of transmitting the disease to their families. During this period, many healthcare professionals who were fighting on the front line lost their lives by being caught by COVID-19. Like all health professionals struggling with this disease, emergency room nurses have been negatively affected by this process in physical, mental and social terms. There are few studies on the problems experienced by emergency nurses during the pandemic period. In the COVID-19 Pandemic, it is important to identify the problems faced by emergency services nurses and to plan initiatives to solve them.

**Keywords:** *COVID-19, Emergency Nursing, Emergency Care, Emergency Nurses, Emergency Service.*

**ÖZET**

Acil servisler özellikle ölüm veya sakat kalma riski bulunan, acil bakım ihtiyacı olan her hastanın değerlendirilmesi ve stabilizasyonunun sağlanmasının amaçlandığı ve bu nedenle gerekli bilgi ve beceriye sahip nitelikli personeli bulundurmak zorunda olan sağlık birimleridir. Hızlı karar verilmesi ve uygulanması gereken dinamik bir alan olan acil servislerde; kalabalık, sıkıntılı ve ağır hastalar, hasta yakınları, alan darlığı gibi pek çok faktör iş yükünü ve stres yükünü arttırmaktadır. Acil hemşireliği, profesyonel hemşirelik alanında, uzun süreli sakatlık veya ölümden kaçınmak için acil

tıbbi müdahale gerektiren hastaların bakımına odaklanan bir uzmanlık alanıdır. Acil bakım hemşireleri tanısı konmamış, stabil olmayan, tıbbi ve cerrahi sorunları olan, kültürel ve ekonomik durumu birbirinden farklı yaş gruplarındaki bireylere gerekli hemşirelik bakımını zaman kaybetmeden uygulayan hemşirelik profesyonelleridir. Acil bakımda yürütülen hemşirelik bakımı diğer birimlerdekine benzerlik göstermekle beraber henüz tanısı konmamış ve durumu kritik olan hastalara, karmaşık bir ortamda sınırlı bir zamanda bakım verme yükümlülüğü açısından farklı özellikler taşımaktadır. Acil servisler çok sayıda hastaya hizmet vermesi, hastaların tıbbi bakım alanları arasındaki naklini sağlaması yönüyle hastanelerin en yoğun ve bu yoğunluğun yanı sıra farklı türden stresör barındıran birimleridir. Çin'in Wuhan kentinde ortaya çıkan ve kısa sürede tüm Dünya'da bir pandemiye neden olan Sars COV-2 virüsüne bağlı COVID-19 hastalığı tüm Dünya'da ve Ülkemizde hastanelerin yükünü arttırmıştır. Yapılan çalışmalar pandemi öncesi dönemde birçok acil servisin olumsuz çalışma koşullarına sahip olduğu göstermektedir. Pandemi döneminde ise acil servis çalışanları önceden var olan sorunlara ek olarak, hasta yükünün çok artması, başlangıçta hastalığın bulaş yollarının yeterince bilinmiyor oluşuna bağlı uygulama ile ilgili sorunlar, hastalığın bulaşma riskinin yüksek olması, hasta sayısındaki artış nedeniyle fiziki koşulların ve personel sayısının yetersiz kalması, çalışanların hastalığı ailelerine bulaştırma endişesi ile evlerinden uzakta yaşaması gibi birçok sorun ile mücadele etmek durumundadır. Bu dönemde ön cephede savaşmakta olan birçok sağlık profesyoneli COVID-19'a yakalanarak hayatını kaybetmiştir. Bu hastalıkla mücadele eden tüm sağlık profesyonelleri gibi acil servis hemşireleri de fiziksel, ruhsal ve sosyal anlamda bu süreçten olumsuz etkilenmiştir. Pandemi döneminde acil hemşirelerinin yaşadığı sorunlara ilişkin az sayıda çalışma bulunmaktadır. COVID-19 Pandemisinde acil servis hemşirelerinin de yaşadığı sorunların belirlenmesi ve çözümüne yönelik girişimlerin planlanması önem kazanmaktadır.

**Anahtar Kelimeler:** *COVID-19, Acil Hemşireliği, Acil Bakım, Acil Hemşireleri, Acil Servis.*



**COVID-19 PANDEMİSİ VE YAŞLI SAĞLIĞI**  
**ELDERLY HEALTH IN THE COVID-19 PANDEMIC**

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**ABSTRACT**

The Sars COV-2 virus, which was first seen in Wuhan, China, and the resulting COVID-19 disease were evaluated as pandemics by WHO. The first case in our country was seen on March 11, 2020, and then various measures were taken. In this process, both the fact that the disease affects the elderly people more and the measures taken are aimed at restricting the elderly people, making this process difficult for them. Old age; It is a period of widespread losses in all areas of life. This concept expresses a period in which individuals lose their physical, psychological and social independence and become dependent; It is defined by WHO as "the gradual decrease in the ability to adapt to environmental factors". Although the old age period varies according to various societies and cultures, it is a period in which psychological, social and economic changes are experienced as well as changes in the biological structure of individuals. Older individuals try to cope with these changes and adapt. During the pandemic period we are in, all segments of the society are trying to cope with various difficulties. However, this adaptation process poses greater difficulties, especially for elderly people. In our country, curfews have been imposed on individuals over the age of 65 since the beginning of the epidemic in order to protect them from COVID-19 transmission. When pandemic was declared, for elderly people, a full-time curfew was imposed. Currently, these individuals have the freedom to go out for only four hours a day. There are studies showing that this situation creates negative emotions in these individuals. Considering the changes in the musculoskeletal system, especially in the old age, it is important to meet the movement requirement properly. This situation turns into a disadvantage for these individuals both psychologically and physically. In addition, today, contrary to the first days of the pandemic, the mode of transmission of COVID-19 is better known. It is known that going out on the streets by following the mask and distance rule does not increase the risk, and the risk increases with other individuals entering and leaving the house from outside. Considering that it is not known how long the epidemic will last, it is inevitable that such restrictions will turn into a situation that will lead to the deterioration of the health of elderly people. For this reason, taking scientific data into consideration, making new plans in order to reduce the negative social, physical and psychological effects of the epidemic on individuals over the age of 65; Rather than imposing restrictions on individuals over the age of 65, it is important to raise awareness for the protection of older individuals in other segments of the society, especially the young population at risk of infecting them.

**Keywords:** *COVID-19, Old Age, Elderly Health.*

**ÖZET**

İlk kez Çin'in Wuhan kentinde görülen Sars COV-2 virüsü ve buna bağlı ortaya çıkan COVID-19 hastalığının DSÖ tarafından pandemi olarak değerlendirilmiştir. Ülkemizde ilk vaka 11 Mart 2020 tarihinde görülmüş, ardından çeşitli önlemler alınmaya başlanmıştır. Bu süreçte hem hastalığın yaşlı bireyleri daha fazla etkiliyor olması, hem de alınan önlemlerin özellikle yaşlı bireylerin kısıtlanmasına yönelik olması bu süreci onlar için zorlaştırmıştır. Yaşlılık dönemi; yaşamın her alanında yaygın kayıpların yaşandığı bir dönemdir. Özellikle bireylerin bedensel, psikolojik ve sosyal yönden bağımsızlıklarını yitirdiği ve bağımlı duruma geldikleri bir dönemi ifade eden bu kavram; DSÖ tarafından "çevresel faktörlere uyum sağlama yetisinin giderek azalması olarak" tanımlanmaktadır. Yaşlılık dönemi çeşitli toplumlara ve kültüre göre değişiklik gösteriyor olsa da bireylerin biyolojik yapılarında değişimlerin yanı sıra psikolojik, sosyal ve ekonomik değişimlerin yaşandığı bir dönemdir. Yaşlı bireyler bu değişimlerle baş etme ve uyum göstermeye çalışmaktadır. İçinde bulunduğumuz pandemi döneminde toplumun tüm kesimleri çeşitli zorluklarla baş etmeye çalışmaktadır. Ancak özellikle yaşlı bireyler için bu uyum süreci daha büyük güçlükler

barındırmaktadır. Ülkemizde salgının başından itibaren 65 yaş üstü bireylere, COVID-19 bulaşından korumak amacıyla, sokağa çıkma kısıtlamaları uygulanmaktadır. Yaşlı bireyleri için pandemi ilan edildiğinde tam gün sokağa çıkma yasağı uygulanmıştır. Mevcut durumda bu bireylerin günde dört saat sokağa çıkma serbestliği bulunmaktadır. Bu durumun bu bireylerde olumsuz duygular yarattığına dair araştırmalar bulunmaktadır. Özellikle yaşlılık döneminde kas ve iskelet sistemindeki değişiklikler göz önüne alındığında hareket gereksiniminin uygun şekilde karşılanması önemlidir. Bu durum hem psikolojik hem de fiziksel açıdan bu bireyler için bir dezavantaj haline dönüşmektedir. Ayrıca günümüzde pandeminin ilk günlerinin aksine COVID-19'un bulaşma şekli daha iyi bilinmektedir. Maske ve mesafe kuralına uyarak sokağa çıkılmasının riski arttırmadığı, riskin ev içine dışardan girip çıkan diğer bireylerle arttığı bilinmektedir. Salgının ne kadar süreceğinin bilinmediği göz önüne alındığında ve bu tür kısıtlamaların yaşlı bireylerin sağlıklarının bozulmasına yol açacak bir duruma dönüşmesi kaçınılmazdır. Bu nedenle bilimsel veriler göz önüne alınarak, 65 yaş üstü bireyler üzerinde salgının yarattığı olumsuz sosyal, fiziksel ve psikolojik etkilerin azaltılması amacıyla yeni planlamalar yapılması; 65 yaş üstü bireylere kısıtlama getirmek yerine onlara bulaştırma riski olan genç nüfus başta olmak üzere toplumun diğer kesimlerinde yaşlı bireylerin korunması için farkındalık oluşturulması önem kazanmaktadır.

**Anahtar Kelimeler:** *COVID-19, Yaşlılık, Yaşlı Sağlığı.*

**SU SPORLARIYLA UĞRAŞAN BİREYLERİN BAZI PSİKOLOJİK ÖZELLİKLERİNİN İNCELENMESİ****INVESTIGATION OF SOME PSYCHOLOGICAL CHARACTERISTICS OF ATHLETES DEALING WITH WATER SPORTS****Lale YILDIZ***Mugla Sitki Kocman University, ORCID: ID/0000 0002 1283 4788***Sevil ULUDAG UYANIKER***Mugla Sitki Kocman University, ORCID: ID/0000 0003 4997 4861***ABSTRACT**

It is known that many factors can cause pressure for the athlete in sports performed on water rather than any nature sports. In this context, it is important to train athletes' cognitive abilities and skills with a strong mindset and to increase their awareness of their psychological characteristics. In the study, it was aimed to examine the psychological characteristics of individuals engaged in water sports regarding locus of control, motivation and achievement orientation according to some parameters and to determine possible relationships between characteristics. Appropriate sampling, one of the non-probabilistic sampling methods, was used in determining the participants, and the study was carried out with a correlational survey model. A total of 147 licensed athletes (34 females and 113 males), including 48 windsurfers, 36 individual sails, 37 sets of sails, 26 kitesurf, participated in the study. The participants were administered the “Revised Locus of Control Scale”, “Sports Motivation Scale II” and “2x2 Achievement Orientation Scale (Revised Form)”. Descriptive statistics, independent samples t-test, one-way ANOVA and Pearson correlation analysis were used in the analysis of the data. According to the analysis results, it was determined that there are statistically significant differences between national and non-national athletes in all sub-dimensions of the achievement orientation scale and that all athletes have a positive orientation towards learning. The average scores of the performance-approach sub-dimension of athletes aged 20 and under and the amotivated sub-dimension of individuals with sports age 9 and over were found to be significantly higher. In addition, a moderately significant positive correlation was found between performance-avoidance achievement orientation and the integrated regulation motivation dimension, and between intrinsic regulation and learning-approach orientation. As a result, it is thought that individuals dealing with water sports can develop different strategies according to their psychological characteristics on the way to success and the findings will contribute to the field of sports psychology.

**Keywords:** *Water Sports, Locus of Control, Motivation, Achievement Orientation, Psychological Skills.*

**ÖZET**

Herhangi bir doğa sporundan ziyade su üzerinde yapılan sporlarda, sporcu için birçok faktörün baskıya sebep olabileceği bilinmektedir. Bu bağlamda, güçlü bir zihin yapısı ile bireylerin sahip oldukları bilişsel yetenek ve becerilerinin eğitilmesi ve psikolojik özelliklerine ilişkin farkındalıklarının artırılması önemlidir. Çalışmada, su sporlarıyla uğraşan bireylerin, kontrol odağı, güdülenme ve başarı yönelimine ilişkin psikolojik özelliklerinin bazı parametrelere göre incelenmesi ve özellikler arasındaki olası ilişkilerin belirlenmesi amaçlanmıştır. Katılımcıların belirlenmesinde, olasılıklı olmayan örnekleme yöntemlerinden uygun örnekleme kullanılmış ve çalışma ilişkisel tarama desen modeli ile gerçekleştirilmiştir. Araştırmaya 48 rüzgar sörfü, 36 bireysel yelken, 37 takım yelken, 26 kitesurf olmak üzere toplam 147 ( $\bar{X}$  yaş=23.09±7.23) lisanslı sporcu (34 kadın 113 erkek) katılmıştır. Katılımcılara “Rotter İç-Dış Kontrol Odağı Ölçeği”, “Sporda Güdülenme Ölçeği II” ve “2x2 Başarı Yönelimleri Ölçeği (Revize Formu)” uygulanmıştır. Verilerin analizinde, betimsel istatistik, bağımsız örneklem t-testi, tek yönlü ANOVA ve pearson korelasyon analizleri kullanılmıştır. Analiz sonuçlarına göre, başarı yönelimi ölçeğinin tüm alt boyutlarında milli ve milli olmayan sporcular arasında istatistiksel olarak anlamlı farklılıklar olduğu ve tüm sporcuların öğrenmeye doğru olumlu bir yöneliminin olduğu tespit edilmiştir. 20 yaş ve altı sporcuların

performans-yaklaşma alt boyutu puan ortalamaları ile 9 ve üzeri spor yaşına sahip bireylerin güdülenme alt boyutu puan ortalamaları anlamlı düzeyde daha yüksek bulunmuştur. Ayrıca performans-kaçınma başarı yönelimi ile bütünleşmiş düzenleme güdülenme boyutu arasında ve içe atımla düzenleme ile öğrenme-yaklaşma yönelimi arasında orta düzeyde anlamlı pozitif ilişki olduğu saptanmıştır. Sonuç olarak, su sporlarıyla uğraşan bireylerin başarıya giden yolda psikolojik özelliklerine göre farklı stratejiler geliştirebileceği ve elde edilen bulguların spor psikolojisi alan yazınına katkı sağlaması düşünülmektedir.

**Anahtar Kelimeler:** *Su sporları, Kontrol odağı, Güdülenme, Başarı Yönelimi, Psikolojik Beceriler.*

**TÜRK MİLLİ YELKEN SPORCULARINDA PSİKOLOJİK BECERİ, MAKSİMAL KUVVET VE BRANŞ PERFORMANSINA YÖNELİK PİLOT BİR ÇALIŞMA**

THE RELATIONSHIP OF PSYCHOLOGICAL SKILLS, MAXIMAL STRENGTH AND PERFORMANCE IN TURKISH NATIONAL SAILING ATHLETES: A PILOT STUDY

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**ABSTRACT**

Athletes who are engaged in outdoor sports such as sailing should increase their their psychological skills, even if they have the physical strength to compete at an elite level, and should include mental studies for their needs in their programs. In this study, it is aimed to examine the possible relationships among the psychological skills, maximal strength and performances of Laser Standard male national sailing athletes. 13 Turkish national male athletes ( $\bar{X}$ age=19±2.13) between the ages of 17-25 participated in the study. The research was designed as a pilot study. As data collection tools; In the quantitative phase of the study, "Personal Information Form", "The Athletic Coping Skills Inventory (ACSI-28)" were applied to the participants. The maximum strength of the upper and lower extremities was measured by the 1TM determination method using free weights (Haff and Triplett, 2016). In the qualitative phase of the study, the answers given to the semi-structured open-ended questions created by the researchers were recorded. For quantitative data, descriptive analysis and Pearson correlation analysis were used with the SPSS 26 package program, while qualitative data were written down, defined according to certain phenomena, and interpreted with the depth and richness of the data. According to results, there is a high positive correlation between the ability to cope with adversity and these two that are peaking under pressure and concentration; A moderate positive correlation was found between peaking under pressure and these three that are concentration, confidence and achievement motivation, and freedom from worry. Negative high level correlation was found between the performances of the athletes and upper extremity strength and a very high level positive correlation was found between the performance and lower extremity strength. The qualitative findings of the study also support the quantitative findings. The majority of the participants stated that psychological skills and strength are very effective on performance and they generally feel self-confident. More than half of them stated that they can perform succesfully their duties under pressure, provide stress management and feel strong, and it is noteworthy that more successful athletes include the concepts of goal setting and openness to learning.

**Keywords:** *Sailing, Elite Athlete, Psychological Skills, Strength, Performance, Mixed Method.*

**ÖZET**

Yelken gibi doğa sporları ile uğraşan bireyler, elit düzeyde yarışabilecek fiziksel kuvvete sahip olsa da psikolojik becerileri ile ilgili farkındalıklarını artırmalı ve programlarında ihtiyaçlarına yönelik zihinsel çalışmalara da yer vermelidirler. Çalışmada Laser Standard erkek milli yelken sporcularının psikolojik beceri, maksimal kuvvet özellikleri ve branş performansları arasındaki olası ilişkileri incelemek amaçlanmıştır. Katılımcıların belirlenmesinde, amaçlı örnekleme yöntemlerinden benzeşik örnekleme yöntemi kullanılmış ve çalışma ilişkisel tarama desen modeli ile gerçekleştirilmiştir. Araştırmaya 17-25 yaş arası 13 Türk milli erkek sporcu ( $\bar{X}$  yaş=19±2.13) katılmıştır. Araştırma pilot bir çalışma olarak tasarlanmıştır. Veri toplama araçları olarak; çalışmanın nicel fazında katılımcılara "Kişisel Bilgi Formu", "Sporcuların Psikolojik Becerilerini Değerlendirme Ölçeği (ACSI-28)" uygulanmıştır. Üst ve alt ekstremitelerin maksimum kuvveti, serbest ağırlıklar kullanılarak 1TM belirleme yöntemiyle ölçülmüştür (Haff and Triplett, 2016). Branş performans puanları, sporcuların

Türkiye şampiyonalarındaki son 2 yarışından elde ettikleri sonuçlar ile belirlenmiştir. Çalışmanın nitel fazında ise araştırmacılar tarafından oluşturulan yarı yapılandırılmış açık uçlu sorulara verilen cevaplar kayıt altında alınmıştır. Nicel veriler için SPSS 26 paket programı ile betimsel analiz ve Pearson korelasyon analizi kullanılırken, nitel veriler, yazıya dökülerek, belli olgulara göre tanımlanıp, verinin derinliği ve zenginliği içindeki çözümlenmeler ile yorumlanmıştır. Analiz sonuçlarına göre, zorluklarla baş edebilme yeteneği ile konsantrasyon ve baskı altında iyi performans gösterme (BAİPG) arasında pozitif yönlü yüksek düzeyde ilişki; BAİPG ile konsantrasyon, güven-başarı motivasyonu ve endişelerden kurtulma arasında pozitif yönlü orta düzeyde ilişki tespit edilmiştir. Sporcuların branş performanları ile üst ekstremitte kuvveti arasında negatif yönlü yüksek düzeyde; alt ekstremitte kuvveti ile de pozitif yönlü çok yüksek düzeyde ilişki bulunmuştur. Çalışmanın nitel bulguları da nicel bulguları desteklemektedir. Katılımcıların büyük çoğunluğu psikolojik becerilerin ve kuvvetin performans üzerinde çok etkili olduğunu, genel olarak kendilerine güven duyduklarını ifade etmiştir. Yarısından fazlası baskı altında görevini yapabildiğini, stres yönetimini sağladığını ve kendini kuvvetli hissettiğini belirtirken, daha başarılı sporcuların hedef belirleme ve öğrenmeye açıklık kavramlarına yer verdiği dikkat çekmektedir.

**Anahtar Kelimeler:** *Yelken, Elit Sporcu, Psikolojik Beceri, Kuvvet, Performans, Karma Desen.*

**FASİYAL SİNİRİ KAS ŞUBELERİNİN DAĞILIMI DÜZENLEMELERİ**  
REGULARITIES OF DISTRIBUTION OF MUSCULAR BRANCHES OF THE FACIAL NERVE

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**ABSTRACT**

The aim of the study was to identify certain regularities in the distribution of nerves in the muscles, which are explained in the peculiarities of the development of the neuromuscular apparatus. Research results have shown that most of the facial muscles have one source of innervation, only some of the muscles receive additional nerve branches. A characteristic feature of the innervation of most of the facial muscles is the simultaneous departure from the common trunk of the nerve branches to two or more muscles. The distribution of extramuscular nerves creates dependence of one muscle on another. The level of origin of nerve branches from the main trunks of the facial nerve is variable, while the levels of entry of nerves into the muscles are more or less constant. Nerves running in isolation, as well as in the composition of neurovascular bundles, are introduced from the side of open surfaces facing the side of the bone or from the side of adjacent surfaces adjacent to one another. The sites of nerve penetration depend on the structural features of the muscles. The data obtained show that nerves are introduced from both the posterior and anterior surfaces of the muscles. The angles of nerve origin from their sources are usually sharp. The angles of penetration of nerve branches are largely determined by the length of the extramuscular part of the nerve. The greater the distance the nerve travels in the intermuscular spaces, the smaller the angle of its penetration. Most muscles are characterized by the introduction of nerves at an acute angle. Often, nerves retain their extramuscular direction in the thickness of the muscle. The direction of the main intramuscular nerves often coincides with the direction of the longitudinal axis of the muscle. The picture of the intramuscular distribution of nerves is distinguished by exceptional diversity and variability and is associated with the morphofunctional features of the muscle itself. In the thickness of the muscle, the nerves form various forms of branching. In muscle sections consisting of short obliquely directed muscle bundles, long nerve trunks are distributed along the main shape and give off numerous thinnest branches along the way. An inverse relationship was noted between the length of the intramuscular nerves and the length of the muscle bundles. In certain areas, muscle bundles receive nerve trunks, the course and direction of which are not always the same. Nerves in muscles are distributed unevenly, which is also due to the peculiarities of their structure. The greatest concentration of nerves is observed in the area of penetration and in more massive areas of the muscles. Nerve trunks usually come from the depths, or, conversely, from the surface and along the way they give off branches of a small order, intertwining with each other and forming a multilayer nervous network. The presence of nerve loops is noted, covering muscle fibers and in some areas acquiring the character of a large-loop plexus.

**Keywords:** *facial nerve, myelin fibers, mielinization, nerve trunk*

**ÖZET**

Çalışmanın amacı, nöromüsküler aparatın gelişiminin özelliklerinde açıklanan kaslardaki sinir dağılımındaki belirli düzenlilikleri tespit etmektir. Araştırma sonuçları, yüz kaslarının çoğunun tek bir innervasyon kaynağına sahip olduğunu göstermiştir. bazı kaslar ek sinir dalları alır. Yüz kaslarının çoğunun innervasyonunun karakteristik bir özelliği, sinir dallarının ortak gövdesinden iki veya daha fazla kasa eşzamanlı olarak ayrılmasıdır. Kas dışı sinirlerin dağılımı, bir kasta diğerine bağımlılık yaratır. Sinir dallarının fasiyal sinirin ana gövdelerinden kaynaklanma seviyesi değişkendir, sinirlerin kaslara giriş seviyeleri aşağı yukarı sabittir. Nörovasküler demetlerin bileşiminde olduğu gibi izolasyonda çalışan sinirler, kemiğin yan tarafına bakan açık yüzeylerin yanından veya birbirine bitişik bitişik yüzeylerin yanından sokulur. Sinir penetrasyon bölgeleri, kasların yapısal özelliklerine bağlıdır. Elde edilen veriler, sinirlerin kasların hem arka hem de ön yüzeylerinden sokulduğunu göstermektedir. Sinir kaynaklarının açıları genellikle keskindir. Sinir dallarının penetrasyon açıları

büyük ölçüde sinirin kas dışı kısmının uzunluğu ile belirlenir. Sinirin kaslar arası boşluklarda kat ettiği mesafe ne kadar büyükse, penetrasyon açısı o kadar küçük olur. Çoğu kas, sinirlerin keskin bir açıyla girmesiyle karakterizedir. Çoğu zaman, sinirler kas kalınlığında kas dışı yönlerini korurlar. Ana kas içi sinirlerin yönü genellikle kasın uzunlamasına ekseninin yönü ile çakışır. Sinirlerin kas içi dağılımının resmi, olağanüstü çeşitlilik ve değişkenlik ile ayırt edilir ve kasın kendisinin morfonksiyonel özellikleriyle ilişkilidir. Kasın kalınlığında, sinirler çeşitli dallanma biçimleri oluşturur. Kısa, eğik olarak yönlendirilmiş kas demetlerinden oluşan kas kesitlerinde, uzun sinir gövdeleri ana şekil boyunca dağıtılır ve yol boyunca çok sayıda en ince dallar verir. Kas içi sinirlerin uzunluğu ile kas demetlerinin uzunluğu arasında ters bir ilişki kaydedildi. Bazı bölgelerde, kas demetleri, seyri ve yönü her zaman aynı olmayan sinir gövdeleri alır. Kaslardaki sinirler düzensiz bir şekilde dağıtılır, bu da yapılarının özelliklerinden kaynaklanır. En büyük sinir konsantrasyonu, penetrasyon alanında ve kasların daha büyük alanlarında görülür. Sinir gövdeleri genellikle derinliklerden veya tersine yüzeyden gelir ve küçük bir düzenin dallarını verir, birbirleriyle iç içe geçer ve çok katmanlı bir sinir ağı oluşturur. Kas liflerini kaplayan ve bazı bölgelerde büyük döngülü bir pleksus karakterini kazanan sinir ilmeklerinin varlığı not edilir.

**Anahtar kelimeler:** *fasiyal sinir, miyelin lifleri, mielinizasyon, sinir gövdesi*



**THE PROCESSING OF CONSUMERS' BIOMETRIC DATA IN B2C CONTRACTS UNDER EU REGULATIONS**

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**ABSTRACT**

Perceived as species of sensitive data, the consumer's biometric data are exempt from the general rules applicable to personal data collecting and processing and continue to raise multiple interrogations for legal practitioners, especially in terms of adapting the regulations on obtaining the consumer's consent to the collecting of biometric data resulting from specific technical processing relating to the physical, physiological, or behavioural characteristics of a natural person, which allows or confirms the unique identification, such as facial images, voice recognition or fingerprint scanning (dactyloscopic data). Commonly used for performance of online financial services, as well as for the performance of other types of B2C contracts, the biometric data processing presents several intricacies, in terms of legal efficiency of the regulations preventing or anticipating data flow, illegal access to biometric data or security breaches. As underlined by specialised literature, consumers' biometric data are irreplaceable data, which makes the identity theft even more difficult to stop, once a security breach has been signalled; as opposed to the identifying or authentication procedures based on static and mobile passwords / codes of access, which may be changed once an illegal access attempt has been reported, in the case of identification based on iris recognition or on retina recognition, face structure recognition, fingerprint recognition or finger geometry and hand blood vessels recognitions, these data are irreplaceable and cannot be changed or altered by the person, once the biometric data have been accessed by unauthorised third parties. In accordance with the provisions of article 9, par. (2) of the EU General Regulation on the Protection of Personal Data, biometric data fall under the prohibition of the processing for the purpose of „uniquely identifying a natural person”, except in the hypotheses in which consumer's consent has been given explicitly (a), the cases in which the biometric information is necessary for carrying out obligations of the controller or the data subject in the field of employment, social security and social protection law (b), as well as if it's essential to protect the vital interests of the individual and he/she is incapable of giving consent (c), if the processing of biometric data is critical for any legal claims (d) or should it be necessary for reasons of public interest in the area of public health (e). The study emphasises the assertion that, in the field of business to consumer contracts, the processing of photographs or video images (such as those captured by the supervising cameras) would not systematically be considered to be processing of special categories of personal data as they are covered by the definition of biometric data only when processed through a specific technical means allowing the unique identification or authentication of a natural person, as resulting from the GDPR's Preamble, paragraph (51).

**Keywords:** *biometric data, consumers, B2C contracts, data processing, GDPR.*

**NATURE AND SIGNIFICANCE OF THE DECLARATIONS OF  
THE INTERNATIONAL LABOUR ORGANIZATION**

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**ABSTRACT**

The subject of scientific analysis is the nature and significance of declarations, as acts adopted by the International Labour Organization. The six solemn declarations, which were adopted at the sessions of the International Labour Conference (the General Conference), were presented.

**Keywords:** *International Labour Organization, International Labour Conference (General Conference), declarations, international labour law*

JEL: K310, K380

**GİRİŞİMCİ OLAY MODELİ İLE PLANLI DAVRANIŞ MODELİNİN  
KARŞILAŞTIRILMASI: TEORİK DÜZEYDE BİR ARAŞTIRMA**  
A COMPARISON BETWEEN ENTREPRENEURIAL EVENT MODEL AND PLANNED  
BEHAVIOUR MODEL: A THEORITICAL STUDY

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**ÖZET**

Bireylerin, girişimcilik faaliyetlerine yönelmelerinin hangi değişkenlere bağlı olduğu girişimcilik yazınındaki temel araştırma konuları arasındadır. Girişimcilik faaliyetleri, başlangıçta girişimcilere özgü unsurlarla, ardından da durumsal değişkenlerle açıklanmaya çalışılmıştır. Ancak 1980'li yıllar itibarıyla, girişimcilik faaliyetlerinin pek çok değişkenden etkilenen bütünsel bir özellik gösterdiği tartışılmaya başlanmış ve girişimci adaylarının niyetlerinin, girişimcilik faaliyetlerine yönelmelerindeki temel unsur olduğu ileri sürülmüştür. Bu doğrultuda, girişimcilik niyetini açıklayan çeşitli modeller ortaya konulmuştur. Bu çalışmanın amacı, girişimci olay modeli ile planlı davranış modelinin teorik düzeyde karşılaştırılmasıdır. Çalışma kapsamında, girişimci niyet modellerinin gelişimi, girişimcilik niyetini açıklamada yararlanan girişimci olay modeli ve planlı davranış modelinin kavramsal çerçeveleri ve teorik alt yapıları incelenmiştir. Planlı davranış ve girişimci olay modellerinin teorik düzeyde karşılaştırılmasına yönelik yurt dışı literatür incelendiğinde, modellerde farklı değişkenler kullanıldığı, hatta modellerde aynı teorik yapı kullanılsa dahi farklı ölçüm araçlarından yararlandığı görülmüştür. Türkçe alanyazında girişimcilik ile ilgili yapılan çalışmalarda ise planlı davranış modelinde ele alınan değişkenlere ilişkin fikir birliği bulunduğu, girişimci olay modelinin ise sınırlı sayıda çalışmada ve kavramsal düzeyde ele alındığı görülmüştür. Bu çalışma, ilgili modellerin ampirik olarak da karşılaştırılacakları araştırma modelinin ilk aşamasını oluşturmaktadır. Dolayısıyla çalışmanın, gelecekte girişimcilik konusunu ele alacak olan çalışmalara teorik anlamda katkı sağlanması hedeflenmektedir.

**Anahtar Kelimeler:** *Girişimcilik, Planlı Davranış Modeli, Girişimci Olay Modeli*

**ABSTRACT**

The factors that determine entrepreneurship orientation of individuals are among the main research topics in the field of entrepreneurship. Entrepreneurial activities were initially explained by entrepreneur-specific issues and later by situational variables. However, as of the 1980s, it was argued that entrepreneurial activities are being affected by many variables and should be considered in a holistic perspective. So, it was asserted that entrepreneurial intentions were the main elements towards entrepreneurial activities. Accordingly, various models that explain entrepreneurial intentions have been put forward. The aim of this study is to compare the entrepreneurial event model with the planned behavior model at the theoretical level. Within the scope of the study, the development of entrepreneurial models, conceptual frameworks and theoretical basics of the models were examined. When the foreign literature for a theoretical level comparison of planned behavior and entrepreneurial event models was examined, it was seen that different variables and different measurement tools were used despite the use of the same theoretical structure. In Turkish studies on entrepreneurship, it was seen that there was a consensus on the variables discussed in the planned behavior model, while the entrepreneurial event model was analyzed conceptually in a limited number of studies. This study constitutes the first stage of a research model, in which the relevant models will also be compared empirically. Therefore, with this study, it is aimed to contribute theoretically to the studies that will focus on entrepreneurship in the future.

**Keywords:** *Entrepreneurship, Theory of Planned Behavior, Entrepreneurial Event Model.*

**RENEWABLE ENERGY: REVIEW OF THE TURKISH LITERATURE****Bilge AKSAY***Adana Alpaslan Türkeş Science and Technology University, Orcid: 0000-0002-0563-7778***ABSTRACT**

With the European Green Deal, renewable energy got the spotlight in almost all over the globe. Selecting and acting on the most proper source of renewable energy requires understanding local, social, economic, and infrastructure conditions. The differences between the planned and the actual renewable energy production oblige Turkey to undergo immediate structural changes. Additionally, the necessity of high technology transfer for various renewable energy technologies pushes Turkish firms to consider new challenges in the highly volatile environment. Within the framework of Wüstenhagen, Wolsink, and Bürer (2007)'s classification, this study aims to analyze the research findings conducted in Turkish literature on renewable energy. By classifying the studies, it is hoped to determine the research gaps on renewable energy. Three main factors are contributing to renewable energy acceptance which are defined as sociopolitical factors, community factors, and market acceptance factors. The findings of this paper show that researches on renewable energy conducted in Turkish are mostly studied by scholars from the engineering field and within an optimization perspective framework. Despite the existence of some insights on renewable energy from the education field, there is plenty of research focusing on community and market factors. Thus, the findings of this review urge further research on community and market factors in Turkey that are instrumental in the adoption of renewable energy technology. In this vein, recommendations for future research on the individual, organizational, inter-organizational, and meso-level are presented.

**Keywords:** *Renewable energy, Turkey, review*

**STATISTICAL ANALYSIS OF THE LIFE VARIABLES PERCEPTION FOR AZERBAIJAN PEOPLE BY USING A NATIONAL REPRESENTATIVE SURVEY FROM 2011**

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**ABSTRACT**

In the present exposure we will analyse the opinions of the Azerbaijan people concerning the importance in the real life of the set *Life* defined by six categorical ordinal variables. More precisely, the group *Life* is composed by the variables: family (F), friends (M, mates), leisure time (T), politics (P), work (W) and religion (R). Our research is based on an Azerbaijan survey designed in 2011 year with 1002 respondents. Concretely, the primary data were taken from Word Values Survey databases, wave 6. The males/females records from the initial survey were weighted taking into account the demographic Azerbaijan statistics from 2012.

For the set *Life* of variables, every questioned person of the surveys has six alternatives to respond, that are: Not at all important (code 1), Not very important (code 2), Rather important (code 3), Very important (code 4), Don't know (DK), No answer (NA). In the proposed statistical models we will keep as data input only the individual opinions that are the response codes 1-4.

First, using the classical stochastic relation of order between the distributions of the categorical ordinal variables of *Life* we established the structure graph for the whole system *Life*. But the defined stochastic relation is a partial one since we can have two distributions of X and Y which are not comparable ( say  $X \# Y$  ). In our concrete case we deduce:  $R \# T$  ,  $W \# M$ .

For this reason the stochastic relation of order is not adequate to construct an hierarchy between all the variables *Life*. In this context we proposed a progress index based on a shifted average operation ( shortly the PSA coefficient ). Applying the PSA indicator we obtained the following hierarchy :  $F > W > M > R > T > P$ . More, we can quantify the differences between the variables *Life*. For example, to compute effectively the differences of the individual opinions referring to “family” (F) and “politics” (P).

At last we obtained the dendrograms for the objects *Life* by using an hierarchical agglomerative procedure of classification based on the city-block distances between the distributions of the variables *Life*. We mention at this point the special roles played by the variables “family” (F) and “politics” (P).

**Keywords** : *survey, life values, stochastic relation of order, PSA index, classification.*

**KÜRESELLEŞMEDEN SERBEST TİCARETE GELECEK SENARYOLARI**  
FUTURE SCENARIOS TO COME FROM GLOBALIZATION TO FREE TRADE

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**ABSTRACT**

This note is concerned with a weighted Dirichlet-Steklov problem driven by the  $p$ -biharmonic operator. Our approach is based on variational method and Ljusternick-Schnirelmann principle, we establish that the above problem admits a non-decreasing sequence of non-negative eigenvalues.

**Keywords:**  *$p$ -Biharmonic operator, Steklov boundary conditions, Ljusternick-Schnirelmann principle, Palais-Smale condition.*

COUSIN MARRIAGE IN THE LIGHT OF ISLAM AND MEDICAL SCIENCE

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**ABSTRACT**

Cousin marriage is considered to be a cause of viral diseases in the societies where it is in practice. This study focuses on the practice of cousin marriage in the light of Islam and medical science. Various holy texts regarding Maharim, non-Maharim and marriage were studied in detail. Analyses of the studies about diseases that are counted with consanguineous marriages were carried out. It was observed that there were a number of rare disorders described in medical science linked with cousin marriages. Islam taking into account this drawback in cousin marriage encourages marriages outside the family, so that the social circle is widened and deadly diseases in health can be avoided.

Marriage is a divine favour that God bestows on His servants. Islam calls upon the Muslim community to preserve this sacred and beautiful tradition and to make it a conduit for coming closer to God. In fact, it should be understood that marriage itself is an act of worship, and when done correctly with consciousness of God and with strict adherence to the rights that God sent down, can lead a person to Paradise. A series of verses from the holy Qur'an indicate this fact as God says: And Allah has given you spouses from your kind, and has granted you through your spouses, sons and grandsons, wholesome things as sustenance. (After knowing all this), do they still believe in falsehood and deny Allah's bounty.

**Keywords:** *Congenital Disorders, Cousin Marriage, Medical, Islam.*

**ASSESSING PERCEIVED QUALITY OF E COMMERCE WEBSITES AND ITS IMPACT  
ON ALGERIAN CONSUMER BEHAVIOR**

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**ABSTRACT**

The development of information and communication technologies, in the forefront of which is the Internet, is leading to numerous changes in consumer behavior and existing distribution networks. The distribution sector has not escaped the questioning of the implementation of this new channel as an information and sales tool, with some seeing it as an opportunity for a new development path.

Quality of service is defined as the extent to which accurate, complete, and timely content is provided to online consumers during the process of interacting with the user interface in the virtual environment. The user interface is an essential component of the e-service experience. In the context of the online atmosphere, the store layout and design particularly influence the service consumer's consumption experience.

The objective of this study is to test the effect of merchant website quality on online consumer behavior in Algeria especially the purchase intention. To capture the features of the sale website, we identified three components based on the literature: design, reliability and information. These dimensions have been found to be important in past studies on the online service context.

A quantitative study uses a large-scale questionnaire, investigating 370 consumers, to test the impact of the mentioned dimensions on the purchase intention. The research uses structural equation modeling (SEM) to analyze and confirm the conceptual model proposed in the study. The findings show that (1) reliability and information have a significant effect on purchase intention; (2) design have no significant effect on purchase intention. Finally, the paper provides us with some profound conclusions and insightful implications about how to motivate purchase intention by visiting the sale websites and how to transfer this intention into truly positive purchasing behavior.

**Keywords:** *Sale Websites; Perceived Quality; Consumer Behavior; Algerian Consumer; Website design.*



**CRM CHALLENGE FOR THE 21ST CENTURY**

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**ABSTRACT**

CRM (Customer Relationship Management) has an important place in business and influences the behavior of enterprises and organizations. A great influence is evident in the changes in the work of marketers and sales people who have direct contact with customers. The changes are brought by information technology to offer innovations that help in the default time and time of a pandemic too. Many applications implement artificial intelligence to support advanced analysis and automated processes. There is also interest in IoT (Internet of Things). CRM systems have the same vision for better support IT (Information Technology) users based on intelligence and IoT integration. Another challenge is related to the visualization and support of team communication. This article focuses on monitoring innovations in CRM systems and their evaluation according to specified metrics from the perspective of small business. The added value will be visible in the recommendation for better CRM implementation according to their benefits.

**VISA SEEKERS; A NEW FORM OF TOURISM**

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**ABSTRACT**

Tourism is one of the service industries, with a significant contribution to the economics and lifestyle of the whole world. It is defined as the movement of individuals from their place of residence to another location, with the hope of returning in a maximum of a year. Tourists may have different traveling motivations from leisure to business enjoyment and many more. Tourism takes different forms depending on the traveling motivations of tourists. Some of the popular forms of tourism are urban tourism, cultural tourism, industrial tourism, medical tourism, religious tourism, rural tourism, event tourism, sports, and adventure tourism. However, these forms could make a big list based on different literature. Reviewing literature we found that there is a tourism form which is missed until now. Visa seekers; are a group of tourists who are traveling between countries for the purpose of getting or renewing the visa. This comes from the practice that some countries offer a limited period of visa per entry to certain nations. Individuals who are at the end of the period of their visa but still motivated to stay in the country due to any other reason might think of leaving the country and return again for the sake of a refreshed visa per entry. Hence, they usually prefer the cheapest nearest country, which might be different from their home country, to travel for a few hours or maybe a few days and then return back. Until now no study, to the best of the authors' knowledge, has been done on this type of travelings. Thus, with this paper and based on observations, authors highlight the existence of these travelers. Identification of different forms of tourism contributes to better management and policy makings, hence this article can be useful from the perspective of international tourism management.

**Keywords:** *Tourism, Visa Seekers, Traveling Motivation.*

**THE IMPACT OF EMPLOYEE RELATIONS ON EMPLOYEE PERFORMANCE: THE  
CASE STUDY OF TAWAM HOSPITAL, UNITED ARAB EMIRATES**

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**ABSTRACT**

For organizations, the effective performance of employees in the workplace is necessary as it determines the overall performance of business. Healthy and strong employee relationship is deemed as an effective tool that puts positive impact on the performance of employees. This study is conducted in Tawam Hospital to understand the management practices to improve employee relations and how they impact the overall performance of employees in the workplace. This study sheds light on qualitative research design and structured interviews are conducted to collect data from the management of Tawam Hospital. The results of this study shows that there is strong relationship between employee relationship and performance and firms should focus on improvement of employees' relations in the organization.

**Keywords:** Relationship among employees, performance of employees, Tawam hospital.

**REGIONAL ASPECTS OF ASSESSMENT AND USE OF GEORGIA'S  
TOURISM-RECREATIONAL RESOURCE POTENTIAL**

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**ABSTRACT**

Tourism is one of the promising directions for the development of the regional economy of the country. It contributes to the effective use of the natural resource potential of the regions of the country, helps to solve the problem of employment of the population and attract additional funds to the economy of the region. In addition, the development of regional tourism allows the local population to organize leisure, to meet the needs of their cultural leisure.

The directions of tourist flows in Georgia cover more and more regions. Not all regions are able (can not afford) to fully use their tourism resources to make the region's economy healthier.

The methodological basis for the assessment of the region's tourism resources contains the general principles, methods and rules that are necessary:

- To develop a concept for a comprehensive assessment of tourism resources;
- For research and evaluation of certain types and conditions of tourism resources;
- To determine the tourism potential of the regions;
- For tourist regions of the region and rating assessment;
- For passportization of tourist resources and facilities, for the production of registers.

By the method of analysis of tourism development resources of the region we mean the system of evaluation of information on means, tools, assembly means, processing, analysis and information on tourism development resources of the region.

**Keywords:** *Tourism; recreational resource; region; assessment.*

**MINORITY INTEGRATION WITHIN GROWING ECONOMIC SECTORS IN MIXED  
REGIONS**

KARMA BÖLGELERDE BÜYÜYEN EKONOMİK SEKTÖRLER İÇİNDE AZINLIK  
ENTEGRASYONU

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**ABSTRACT**

This study attempts to identify the conditions necessary to promote the integration of low socioeconomically minorities in mixed regions into technological entrepreneurship and high-tech activities, and how the smart specialization model can be adapted to these situations. This experimental research was conducted in Israel as case study and focused on the mixed region of Beersheva-Rahat and the surrounding Bedouin dispersion, where the minority population is ranked extremely low on the socioeconomic scale.

The findings indicate that in mixed regions with a minority population that is ranked very low on the socioeconomic scale and has low level of readiness, a pre-preliminary-phase is needed in order for smart specialization to work - a phase in which educational and training infrastructures are improved and the population gains awareness of its own potential for future integration in the high-tech sector. This phase constitutes an addition to the smart specialization model. The study findings also point to the important role of the local and regional entrepreneurial initiatives in improving the minority population readiness to take part in that technological entrepreneurship and high-tech activities. The study employs qualitative methodology using in-depth interviews. The study findings have a theoretical and practical contribution by expanding the smart specialization model for implementation in mixed majority-minority regions with a population that ranks very low on the socioeconomic scale, while showing the need for preliminary phases and for governmental policy tools that promote these pre-phases.

**Keywords:** *Smart specialization, mixed regions, integration, minorities, entrepreneurial knowledge, high-tech, policy.*

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**ÖZET**

Bu çalışma, karma bölgelerdeki düşük sosyoekonomik olarak azınlıkların teknolojik girişimciliğe ve yüksek teknoloji faaliyetlerine entegrasyonunu teşvik etmek için gerekli koşulları ve akıllı uzmanlaşma modelinin bu durumlara nasıl uyarlanabileceğini belirlemeye çalışmaktadır. Bu deneysel araştırma İsrail'de örnek olay incelemesi olarak gerçekleştirildi ve azınlık nüfusunun sosyoekonomik ölçekte son derece düşük sıralandığı Beersheva-Rahat karma bölgesi ve çevresindeki Bedevi dağılımına odaklandı.

Bulgular, sosyoekonomik ölçekte çok alt sıralarda yer alan ve hazırlık düzeyi düşük olan azınlık nüfusa sahip karma bölgelerde, akıllı uzmanlaşmanın çalışabilmesi için bir ön hazırlık aşaması gerektiğine işaret ediyor - eğitim ve öğretimin yapıldığı bir aşama. altyapılar iyileştirilir ve nüfus, ileri teknoloji sektörüne gelecekteki entegrasyon için kendi potansiyeli hakkında farkındalık kazanır. Bu aşama, akıllı uzmanlaşma modeline bir ek teşkil eder. Çalışma bulguları ayrıca, yerel ve bölgesel girişimcilik girişimlerinin, azınlık nüfusun söz konusu teknolojik girişimcilik ve yüksek teknoloji faaliyetlerine katılmaya hazır olma durumunun iyileştirilmesindeki önemli rolüne işaret etmektedir. Çalışma, derinlemesine görüşmeler kullanarak nitel metodoloji kullanmaktadır. Çalışma bulguları, sosyoekonomik ölçekte çok düşük bir nüfusa sahip karma çoğunluk-azınlık bölgelerinde uygulama için akıllı uzmanlaşma modelini genişleterek, ön aşamalara ve bunları teşvik eden hükümet politika araçlarına olan ihtiyacı göstererek teorik ve pratik bir katkı sağlar. ön aşamalar.

**Anahtar Kelimeler:** *Akıllı uzmanlaşma, karma bölgeler, entegrasyon, azınlıklar, girişimcilik bilgisi, yüksek teknoloji, politika.*

**COVID-19 PANDEMİ SÜRECİNDE SAĞLIK ÇALIŞANLARININ ALGILANAN STRES VE DUYGUSAL TÜKENME DÜZEYLERİNİN İNCELENMESİ****THE ANALYSIS OF PERCEIVED STRESS AND EMOTIONAL EXHAUSTION LEVELS OF HEALTHCARE PROFESSIONALS IN COVID-19 PROCESS****İbrahim TÜRKMEN***Usak University, ORCID: ID/0000-0002-1558-0736***Asst. Prof. Emine ÇETİN ASLAN***Izmir Bakircay University, ORCID: ID/ 0000-0003-4326-2070***ABSTRACT**

Difficult working conditions along with the Covid-19 pandemic cause healthcare professionals to experience physical, social and psychological problems. The purpose of this study is to examine the perceived stress and emotional exhaustion levels of healthcare professionals in Covid-19 pandemic process and determine the effect of perceived stress on emotional exhaustion. The study was designed as quantitative. The universe of the study was determined as the healthcare professionals working in Ankara city center. Convenience sampling method was used in the study. The research data were collected through online survey form prepared on Google Forms. The survey form consists of descriptive information, perceived stress scale (Cohen, 1983) and emotional exhaustion scale (Maslach, 1981). The research data were obtained from 173 participants between 1st February and 26th February, 2021 and analyzed through SPSS 22 program. Demographic qualities of participants were determined through frequency analysis; validity of the scales was determined through explanatory factor analysis; reliability of the scales was determined through Cronbach's Alpha coefficient; normal distribution was determined through Skewness and Kurtosis values; the differences in research variables according to demographic qualities were determined through t-test and Anova test; the correlation between variables was determined through correlation analysis and the effect of perceived stress on emotional exhaustion was determined through regression analysis. According to the findings, it was determined that the perceived stress and emotional exhaustion levels of female healthcare professionals are higher than male. According to the age groups of the participants, it was found that the perceived stress level of the 21-29 age groups was higher than the other age groups, and the emotional exhaustion level of the 51 and over age group was lower than the other groups. It was determined that emotional exhaustion levels of emergency medical technicians were higher than other professional groups. It was concluded that the emotional exhaustion levels of healthcare professionals with 1-10 years of professional experience were higher than other working year groups. Another result of the study is that it has a significant positive effect on the perceived stress and emotional exhaustion levels of healthcare professionals. It is necessary to determine the factors that cause stress for healthcare professionals and to take measures against these stress sources.

**Keywords:** *Covid-19, Perceived Stress, Emotional Exhaustion, Healthcare Professionals.*

**ÖZET**

Covid-19 pandemisi ile birlikte zorlaşan çalışma koşulları, sağlık çalışanlarının fiziksel, sosyal ve psikolojik sorunlar yaşamalarına neden olmaktadır. Bu çalışmada Covid-19 pandemisi sürecinde sağlık çalışanlarının algılanan stres ve duygusal tükenme düzeylerinin incelenmesi ve algılanan stresin duygusal tükenme üzerindeki etkisi tespit edilmeye çalışılmıştır. Araştırma nicel araştırma olarak tasarlanmıştır. Araştırmanın evreni Ankara il merkezinde görev yapan sağlık çalışanları olarak belirlenmiştir. Araştırmada kolayda örneklem yöntemi kullanılmıştır. Araştırma verileri, Google Forms aracılığıyla hazırlanan anket formu ile çevrimiçi olarak toplanmıştır. Anket formu katılımcıları tanımlayıcı bilgiler, algılanan stres ölçeği (Cohen, 1983) ve duygusal tükenme ölçeğinden (Maslach, 1981) oluşmaktadır. Araştırma verileri 01 Şubat–26 Şubat Aralık 2021 tarihleri arasında 173 katılımcıdan elde edilmiş ve SPSS 22 programı kullanılarak analiz edilmiştir. Katılımcıların

demografik özelliklere ilişkin frekans analizi, ölçeklerin geçerliliği açıklayıcı faktör analizi, güvenilirliği Cronbach's Alpha katsayısı, normal dağılım Skewness ve Kurtosis değerleri, demografik özelliklere göre araştırma değişkenlerindeki farklılıklar t-testi ve Anova testleri, değişkenler arasındaki ilişki korelasyon analizi, algılanan stresin duygusal tükenme üzerine etkisi regresyon analizi ile tespit edilmiştir. Elde edilen bulgulara göre kadın sağlık çalışanlarının algıladıkları stres ve duygusal tükenme düzeylerinin erkeklerden daha yüksek olduğu tespit edilmiştir. Katılımcıların yaş gruplarına göre ise 21-29 yaş grubunun algıladıkları stres düzeyi diğer yaş gruplarından daha yüksek olduğu, duygusal tükenme düzeyleri açısından ise 51 ve üzeri yaş grubunun diğer gruplardan daha düşük olduğu bulunmuştur. Duygusal tükenme düzeyleri; acil tıp teknisyenlerinin diğer meslek gruplarından daha yüksek olduğu tespit edilmiştir. Mesleki tecrübeleri 1-10 yıl olan sağlık çalışanlarının duygusal tükenme düzeyleri, diğer çalışma yılı gruplarından daha yüksek olduğu sonucuna ulaşılmıştır. Araştırmanın bir diğer sonucu ise sağlık çalışanlarının algıladıkları stres, duygusal tükenme düzeyleri üzerinde pozitif yönde önemli etkisi bulunduğudır. Sağlık çalışanlarının strese neden olan faktörlerin tespit edilmesi ve bu stres kaynaklarına karşı önlemler alınması gerekmektedir.

**Anahtar Kelimeler:** *Covid-19, Algılanan Stres, Duygusal Tükenme, Sağlık Çalışanları.*

**G-7 ÜLKELERİNDE TİCARİ AÇIKLIK VE ENERJİ TÜKETİMİ İLİŞKİSİ**  
**THE RELATIONSHIP OF COMMERCIAL OPENNESS AND ENERGY CONSUMPTION IN G-7 COUNTRIES**

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**ABSTRACT**

The country groups formed by countries depending on their development, which makes the effect of globalization even more evident, become more important over time. Being effective in international trade and politics, the purchasing power of the member countries, per capita income, employment rates, intra- industry trade, production level and diversity, as well as the advantages of trade openness, have led to significant developments on growth and development. However, the Covid- 19 Pandemic, which has created global dominance for more than a year, drags countries to a global slowdown in foreign trade levels, while at the same time reshaping a new understanding of politics, nationalization, introversion, production- consumption, innovation and integration. The aim of this study is to reveal the relationship between commercial openness and energy consumption by causality approach. In the group of member countries including Germany, USA, United Kingdom, France, Italy, Japan and Canada, which is called G-7 group, corresponds to 64% of the global wealth and holds USD 263 trillion with 2018 data, the period between 1971-2018 has been discussed. Among the data included in the analysis, commercial openness data were obtained from the World Bank data set, and energy consumption data were obtained from the statistical data page of the International Energy Agency website. In the analysis, the existence of correlation between units was tested. Sequentially, Correlation Test between units, MADF Unit Root Test applied and after testing homogeneity with Delta Test, Dumitrescu Hurlin Panel Causality analysis was used assuming that the model is heterogeneous. According to the causality analysis results, while there is causality from commercial openness to energy consumption, it has been found that there is no causal relationship from energy consumption to commercial openness. All in all, the results of this study revealed that in the G-7 countries group with trade openness, energy consumption is affected by this gap and it is concluded that the trade openness is the cause of energy consumption.

**Keywords:** *G-7 Countries, Trade Oppennes, Global Wealth, Globalization.*

**ÖZET**

Küreselleşmenin etkisini daha da belirgin hale getiren, ülkelerin gelişmişliklerine bağlı olarak oluşturdukları ülke grupları zaman içinde daha önemli olmaktadır. Uluslararası ticaret ve siyasette etkili olma, üye ülkelerin sahip olduğu satın alma gücü, kişi başına düşen gelir, istihdam oranları, endüstri içi ticaret, üretim seviye ve çeşitliliği yanında ticari açıklığın sağladığı avantajların büyüme ve kalkınma üzerindeki etkileri anlamlı gelişmelere yol açmıştır. Ancak, bir yıldan uzun bir süreden beri küresel hakimiyet yaratan Covid- 19 Pandemisi, ülkeleri dış ticaret seviyelerinde küresel yavaşlamaya sürüklerken aynı zamanda yeni bir siyaset anlayışı, millileşme, içe kapanma, üretim-tüketim, yenilikçilik, entegrasyon anlayışının da yeniden şekillenmesine neden olmaktadır. Bu çalışmada amaç, ticari açıklık ve enerji tüketimi arasındaki ilişkiyi nedensellik analizi ile ortaya koymaktır. Küresel zenginliğin % 64'lük kısmına denk düşen ve 2018 yılı verileri ile 263 trilyon Amerikan Dolarını elinde bulunduran, G-7 grubu olarak adlandırılan, Almanya, ABD, Birleşik Krallık, Fransa, İtalya, Japonya ve Kanada'nın içinde bulunduğu ve Avrupa Birliği'nin de temsil edildiği üye ülkeler grubunda 1971-2018 yılları arasındaki dönem ele alınmıştır. Analize dahil edilen verilerden ticari açıklık verisine Dünya Bankası veri setinden, enerji tüketimi verisine ise Uluslararası Enerji Ajansı web sitesi istatistiksel veriler sayfasından ulaşılmıştır. Analizde öncelikle birimler arası korelasyonun varlığı test edilmiş ve sınanmıştır. Sırasıyla uygulanan Birimler Arası Korelasyon Testi, MADF Birim Kök Testi, Delta Testi ile Homojenlik sınanmasının ardından, modelin heterojen olduğu kabul edilerek Dumitrescu Hurlin panel nedensellik analizinden yararlanılmıştır. Nedensellik testi sonuçlarına göre ticari açıklıktan enerji tüketimine doğru nedensellik söz konusu iken enerji tüketiminden ticari açıklığa doğru herhangi bir nedensel ilişkiye rastlanmamıştır. Söz konusu sonuçlar



ticari açıklığa sahip olan G-7 ülkeler grubunda enerji tüketiminin bu açıklıktan etkilendiğini göstermektedir olup ticari açıklık enerji tüketiminin nedenidir sonucuna varılmıştır.

**Anahtar Kelimeler :** *G7 ülkeleri, Ticari Açıklık, Küresel Zenginlik, Küreselleşme.*

**CİPS AMBALAJLARININ SATIN ALMAYA ETKİSİ: NİCEL BİR ARAŞTIRMA**  
**THE EFFECT OF CHIPS PACKAGING ON PURCHASE: A QUANTITATIVE RESEARCH****İhsan EKEN***Istanbul Medipol University, ORCID: ID/ 0000-0002-0401-8545***ABSTRACT**

The design of the packaging also affects the consumers' decision to purchase that product, as well as the benefits of the protection, reuse, storage and transportation of the products from the first time the packages were introduced to the present and even the future. The design of the packaging is a critical element in creating a brand identity for that product. The first point that consumers pay attention to when purchasing a product is the name of the product and the packaging of the product. For this reason, packaging is vital in creating an identity. Consumers are exposed to many different brands and packaging in stores while shopping or purchasing products. One of the most important factors that accelerate the decision-making process of consumers here is packaging. Packaging is an important element that differentiates from competitors and sells the product. There are many factors in the purchasing process. One of the factors that make the purchasing process is our emotional decisions. One of the most important tasks of packaging designers is to create an emotional bond between consumers and the product. In the scope of the study, the effects of chips packaging on consumer purchasing behavior will be examined. In the scope of the study, products of the *Fritolay* brand will be used in the examination of chips packaging. *Fritolay* and Turkey is one of the world's largest brand chips. *Fritolay* includes *Doritos*, *Lay's*, *Ruffles*, *Cheetos*, *Çerezza* and *Rocco*. The aim of the study is to investigate to what extent consumers pay attention to package designs before purchasing the product. The method of the study is screening research, one of the quantitative research methods. Questionnaire method was used to collect data in screening studies. The survey with consumers was conducted online due to the pandemic. The universe of the study consists of 513 consumers. The sample of the study is purposeful sample. Within the scope of the study, it was observed that especially consumers attach importance to packaging design while purchasing products and they purchase products in this direction. It has also been found that the packaging of products plays an important role in marketing for brands.

**Keywords:** *Packaging, Chips, Purchasing*

**ÖZET**

Ambalajlar ilk ortaya çıktığından zamandan itibaren günümüze hatta geleceğe değin ürünlerin korunması, tekrar kullanılması, depolanması ve nakliyesi gibi faydalarının olduğu gibi aynı zamanda ambalajların tasarımı da tüketicilerin o ürünü satın alma kararını da etkilemektedir. Ambalajın tasarımı o ürünün bir marka kimliği oluşturulmasında kritik bir unsurdur. Tüketicilerin ürün satın alırken ilk dikkat ettiği nokta ürünün ismi ve ürünün ambalajıdır. Bu sebeple bir kimlik oluşturmada ambalaj hayati öneme sahiptir. Tüketiciler alışveriş yaparken ya da ürün satın alırken mağazalarda birçok farklı markaya ve ambalaja maruz kalmaktadır. Tüketicilerin burada karar verme sürecini hızlandıran en önemli etkenlerden birisi ise ambalajdır. Ambalaj rakip ürünlerden farklılaşarak, ürünün satışını gerçekleştiren önemli bir unsurdur. Satın alma süreci içerisinde birçok unsur bulunmaktadır. Satın alma sürecini gerçekleştiren unsurlardan birisi ise de duygusal kararlarımızdır. Ambalaj tasarımcıların en önemli görevlerinden bir tanesi de tüketiciler ile ürün arasındaki duygusal bağı oluşturma da önemli bir unsur olarak görev alırlar. Çalışma kapsamında cips ambalajlarında, tüketicinin satın alma davranışları üzerindeki etkileri incelenecektir. Çalışma kapsamında cips ambalajlarının incelenmesinde *Fritolay* markasının ürünleri kullanılacaktır. *Fritolay* Dünya'nın ve Türkiye'nin en büyük cips markalarından biridir. *Fritolay* bünyesinde *Doritos*, *Lay's*, *Ruffles*, *Cheetos*, *Çerezza* ve *Rocco* bulunmaktadır. Çalışmanın amacı cips ambalaj tasarımlarının tüketicilerin

ürünü satın almadan önce ambalaj tasarımlarına ne ölçüde önem verdiklerinin araştırılması amaçlanmaktadır. Çalışmanın yöntemi nicel araştırma yöntemlerinden tarama arařtırmalarıdır. Tarama arařtırmalarında verilerin toplanmasında anket metodu kullanılmıřtır. Tüketicilerle yapılan anket pandemi sebebiyle çevrimiçi olarak yapılmıřtır. Çalışmanın evrenini 513 tüketici oluřturmaktadır. Çalışmanın örneklemi ise amaçsal örneklemdir. Çalışma kapsamında özellikle tüketicilerin ürün satın alırken ambalaj tasarımına önem verdikleri ve bu dođrultuda ürün alımı yaptıkları görülmüřtür. Aynı zamanda markalar açısından ürünlerin ambalajının pazarlama açısından önemli bir rol oynadıđı da tespit edilmiřtir.

**Anahtar Kelimeler:** *Ambalaj, Cips, Satın Alma*

**LOJİSTİK BAKIŞ AÇISINDAN KARADENİZ'E KIYI ÜLKELER İLE TÜRKİYE  
ARASINDAKİ DIŞ TİCARET İLİŞKİLERİ**  
FOREIGN TRADE RELATIONS BETWEEN BLACK SEA COASTLINE COUNTRIES AND  
TURKEY FROM A LOGISTICS POINT OF VIEW

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**ABSTRACT**

The establishment of stability, peace and good relations in international economic relations is an important ground. The commercial reflections of positive relations developed based on reconciliation and common interests between countries manifest themselves with a win-win logic. Turkey and the countries Black Sea neighboring coast in foreign trade, which is infused with both opportunities and disadvantages together. While the logistical facilities provided by the convenience of sea transportation are an important advantage, regional instabilities and memberships framed as different camps present a disadvantageous appearance in terms of foreign trade. This situation suggests that, in terms of classical foreign trade theories, comparative advantages are not sufficiently utilized. The neighboring five countries in Turkey's Black Sea (Romania, Bulgaria, Ukraine, Russia, Georgia) is a pretty striking result was observed when looking at the commercial relationship. The share of these countries in Turkey's total exports in the 2019 year is 9%. Already region is observed far from being considered as an export market for Turkey. On the other hand, the ratio of the countries of Turkey's import ratio is 12% in the total level of imports. Here, especially the Russian Federation stands out. In this sense, the Black Sea countries in terms of imports and in particular Russia, is emerging as an important import country for Turkey. In this study, external trade relations, economic and political relations with the Black Sea countries of Turkey, dealing with the logistics point of view, a situation assessment will be made.

**Keywords:** *Black Sea Countries, foreign trade, regional cooperation, logistics, import, export*

**ÖZET**

Uluslararası ekonomik ilişkilerde istikrar, barış ve iyi ilişkilerin kurulması önemli bir zemindir. Ülkeler arasındaki uzlaşma ve ortak çıkarlar temelli geliştirilen olumlu ilişkilerin ticari yansımaları kazan-kazan mantığı ile kendini göstermektedir. Türkiye'nin Karadeniz'e kıyı olan komşuları ile ortak dış ticaret ilişkileri hem fırsatları hem de dezavantajları bir arada barındırmaktadır. Deniz ulaşımındaki kolaylığın sağladığı lojistik imkanlar önemli bir avantaj iken, bölgesel istikrarsızlıklar ve farklı kamplar şeklinde çerçelenmiş üyelikler, dış ticaret açısından dezavantajlı bir görünüm arz etmektedir. Bu durum, klasik dış ticaret kuramları açısından bakıldığında karşılaştırmalı üstünlüklerden yeterince faydalanılmadığını düşündürmektedir. Türkiye'nin Karadeniz'de komşusu olan beş ülke (Romanya, Bulgaristan, Ukrayna, Rusya Federasyonu, Gürcistan) ile olan ticari ilişkilerine bakıldığında oldukça çarpıcı bir sonuç gözlenmektedir. Türkiye'nin toplam ihracatı içerisinde 2019 yılı için bu ülkelerin aldığı pay %9 deyincedir. Halihazırda bölge Türkiye için bir ihracat pazarı olarak değerlendirilmekten uzak gözlenmektedir. Öte yandan Türkiye'nin yaptığı ithalat oranlarında bölge ülkelerinin oranı toplam ithalat içerisinde %12 düzeyindedir. Burada özellikle Rusya Federasyonu ön plana çıkmaktadır. Bu anlamda ithalat açısından Karadeniz ülkeleri ve özellikle Rusya, Türkiye için önemli bir ithalat ülkesi olarak ortaya çıkmaktadır. Bu çalışmada Türkiye'nin Karadeniz ülkeleri ile olan ekonomik ve politik ilişkileri ile dış ticaret ilişkileri lojistik bakış açısı ile ele alınarak bir durum değerlendirmesi yapılacaktır.

**Anahtar Kelimeler:** *Karadeniz Ülkeleri, dış ticaret, lojistik, bölgesel iş birliği, ithalat, ihracat*

**KARADENİZ İLLERİNİN İNSANİ GELİŞME ENDEKSİ AÇISINDAN  
DEĞERLENDİRİLMESİ**  
EVALUATION OF THE BLACK SEA REGION PROVINCES IN TERMS OF HUMAN  
DEVELOPMENT INDEX

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**ABSTRACT**

Examining and listing countries, regions, and cities' development status provides important information for many segments. From politicians to social researchers, those concerned can make projections by making evaluations based on these data. Determining the development level of a place creates a data set about what needs to be done today and, in the future, and in which areas there are deficiencies. The human development index (HDI) prepared by the United Nations Development Organization (UNDP) is the most important scale used for rankings among countries in the world. The three variables taken as the basis in this scale are health, education, and income dimensions. A comparable scale is created by converting the data obtained from these fields into indices. At the same time, with this method, human development ranking can be made on a provincial or regional basis within a country. In some studies conducted in recent years, it has also made calculations for Turkey. These studies are not carried out in an institutionalized and standardized manner within Turkish Statistical Institute (TURKSTAT). It is done independently by academicians with different years and different calculation techniques. Besides, some criticisms and correction suggestions were made against HDI in the international arena. The calculations, reflecting especially the inequality, emerged after these criticisms. In this study, the Black Sea region, in particular, will be calculated on a human development index 2019 and a comparison will be made with other regions of Turkey. Thus, development differences at both provincial and regional level will be revealed. As a result, a data set will be obtained in terms of investment plans for the future of the public and private sectors. In addition, the study will contribute to the formation of a new data set by calculating the provincial education index.

**Keywords:** *Black Sea region, human development index, regional development, education index*

**ÖZET**

Ülkelerin, bölgelerin ve şehirlerin gelişmişlik durumlarının incelenmesi ve sıralanması pek çok kesim için önemli bilgiler vermektedir. Politikacılardan, sosyal araştırmacılara değin, ilgililer bu verilerden hareketle değerlendirmelerde bulunarak, projeksiyonlar yapabilmektedir. Bir yerin gelişmişlik düzeyinin tespit edilmesi, bugün ve gelecekte nelerin yapılması gerektiği ve hangi alanlarda eksikliklerin olduğuna dair veri seti oluşturmaktadır. Birleşmiş Milletler Kalkınma Örgütü (UNDP) tarafından hazırlanmış olan insani gelişme endeksi (HDI), dünyada ülkeler arasındaki sıralamalar için kullanılan en önemli ölçektir. Bu ölçekte temel alınan üç değişken, sağlık, eğitim ve gelir boyutlarıdır. Bu alanlardan elde edilen veriler birer endekse dönüştürülerek karşılaştırma yapılabilir bir ölçek oluşturulmaktadır. Aynı zamanda bu yöntem ile bir ülke içinde il ya da bölgesel bazda insani gelişme sıralaması yapılabilir. Son yıllarda yapılan bazı araştırmalarda, Türkiye için de hesaplamalar yapılmıştır. Bu çalışmalar Türkiye İstatistik Kurumu (TÜİK) bünyesinde kurumsallaşmış ve standartlaştırılmış bir şekilde yapılmamaktadır. Akademisyenler tarafından, bağımsız olarak farklı yıllar ve farklı hesaplama teknikleri ile yapılmaktadır. Bunun yanında uluslararası alanda, HDI'ya yönelik bazı eleştiriler ve düzeltme önerileri de yapılmıştır. Özellikle eşitsizliği yansıtan bir şekilde hesaplamalar bu eleştirilerden sonra ortaya çıkmıştır.

Bu çalışmada da Karadeniz bölgesi özelinde 2019 yılına dair bir insani gelişme endeksi hesaplanacak ve Türkiye'nin diğer bölgeleri ile bir karşılaştırma yapılacaktır. Böylece hem il bazında hem de bölgesel düzeydeki gelişme farklılıkları ortaya konacaktır. Bunun sonucunda da kamu ve özel sektörünün geleceği yönelik yatırım planları açısından bir veri seti elde edilecektir. Çalışmada ayrıca, il bazında eğitim endeksi de hesaplanarak, yeni bir veri setinin oluşumuna katkı sağlanacaktır.

**Anahtar Kelimeler:** *Karadeniz Bölgesi, insani Gelişme endeksi, bölgesel gelişme, eğitim endeksi*

**ACİL DURUM UZAKTAN EĞİTİM KAPSAMINDA TEMEL DERS YAPISI**  
**BASIC COURSE STRUCTURE WITHIN EMERGENCY REMOTE EDUCATION****Nil GÖKSEL***Anadolu University, ORCID: ID/0000-0002-3447-2722,***ABSTRACT**

With the sudden existence of the coronavirus pandemic in the world, open and distance learning inevitably was put on the agenda. In this context, hundreds of educational institutions and billions of students around the world have been affected by corona restrictions and have had to stay away from face-to-face milieus of learning. In reducing ‘distance’ experienced involuntarily by many of the students, ‘virtual interaction’ between learner-learner, instructor-learner and learner-content had gained more importance in this period. When interaction as the primary goal of the educational process is taken into account within the context of Emergency Remote Education (ERE), interaction seems to have a very essential role in maintaining effective online learning, creating inner motivation, enhancing self-regulated learning, and fostering digital literacy skills of both instructors and learners. In this connection, course design is a core element for reaching students in online environments, so it needs close attention. While planning the course design, the diversity of the learners, scope of the course, relevance in course content, time-space differences and assessment tools should be chosen and revised carefully as the students have to be away from their instructors due to Covid-19. Therefore, the focal aim of this study is to underline the essential factors for a suitable course design in terms of Course Structure, Content, Measurement and Evaluation, Formative Design, Multimedia Materials, Course Accessibility and Usability.

**Keywords:** Open and Distance Learning (ODL), Covid-19, Emergency Remote Education (ERE), Course Structure

**ÖZET**

Koronavirüs salgınının dünyada aniden ortaya çıkması ile birlikte Açık ve Uzaktan Öğrenme kaçınılmaz olarak gündeme gelmiştir. Bu bağlamda, dünya çapında yüzlerce eğitim kurumu ve milyarlarca öğrenci korona kısıtlamalarından etkilenmiş ve yüz yüze öğrenme ortamlarından uzak kalmışlardır. Öğrencilerin birçoğunun istemsiz olarak deneyimlediği 'uzaklığı' azaltmada, öğrenci-öğrenci, öğretmen-öğrenci ve öğrenci-içerik arasındaki ‘sanal etkileşim’ bu dönemde daha fazla önem kazanmıştır. Eğitim sürecinin birincil hedefi olan etkileşim, Acil Uzaktan Eğitim (AUE) bağlamında dikkate alındığında, etkileşimin etkili çevrimiçi öğrenmeyi sürdürmede, iç motivasyon oluşturmada, öz yönetimi düzenleyen öğrenmeyi geliştirmede ve hem öğreticilerin hem de öğrencilerin dijital okuryazarlık becerilerini arttırmada oldukça önemli bir role sahip olduğu gözlemlenmektedir. Ders tasarımı çevrimiçi ortamlarda öğrencilere ulaşmak için temel bir unsurdur, bu nedenle yakından ilgilenilmesi gerekir. Ders tasarımı planlarken, öğrencilerin Covid-19 nedeniyle öğreticilerinden uzaklaşması gerektiğinden, öğrencilerin çeşitliliği, dersin kapsamı, ders içeriğindeki uygunluk, zaman-mekân farklılıkları ve değerlendirme araçları dikkatlice seçilmeli ve revize edilmelidir. Bu nedenle, bu çalışmanın odak amacı, Ders Yapısı, İçeriği, Ölçme ve Değerlendirme, Biçimlendirici Tasarım, Multimedya Materyalleri, Ders Erişilebilirliği ve Kullanılabilirliği açılarından uygun bir ders tasarımı için olması gerekli unsurların altını çizmektir.

**Anahtar Kelimeler:** Açık ve Uzaktan Öğrenme (AUÖ), Covid-19, Acil Uzaktan Eğitim (AUE), Ders Yapısı

**DOĞU KARADENİZ'DE BALIKÇILIK TURİZMİ OLANAKLARI ÜZERİNE BİR DEĞERLENDİRME**

AN EVALUATION ON FISHING TOURISM OPPORTUNITIES IN THE EAST BLACK SEA

**Dr. Öğr. Üyesi Mehmet ŞİMŞEK***Giresun Üniversitesi, ORCID: ID/0000-0002-7558-5010***ÖZET**

Son yıllarda diğer denizlerimizde olduğu gibi Doğu Karadeniz'de de deniz kirliliğinin giderek artması ve artan rekabet koşulları nedeniyle aşırı ve düzensiz avlanma sonucunda balık stokları sürekli bir azalma eğilimindedir. Öte yandan kıyı bölgelerinde kentsel alan yaratmak ve karayolu geçirmek amacıyla yapılan deniz dolguları mahmuz, dalgakıran, balıkçı barınağı ve liman gibi kıyı yapıları ile şehirlerin ve sanayi kuruluşlarının atıklarının denizlere boşaltılması da bu sürecin olumsuz yönde hızlanmasına katkı sağlamaktadır. Bütün bu olumsuz gelişmelerin sonucunda geçimini balıkçılık yaparak sürdüren insanların çoğunun ya balıkçılığı bırakarak başka işlere yöneldiği ya da büyük şehirlere göç ettikleri gözlemlenmektedir. Oysa bir yandan Doğu Karadeniz kıyılarında tarım topraklarının ve sanayi kuruluşlarının yetersizliği diğer yandan balığın zengin proteinli bir besin maddesi olmasının giderek daha iyi anlaşılması söz konusu bölge için balıkçılığı ekonomik ve sosyal açıdan vazgeçilmez hale getirmektedir. Son yıllarda gittikçe dikkat çekmeye başlayan balıkçılık turizminin, geçimini bu yolla sağlayan yerel halkın gelirinin artmasında, ilave istihdam yaratılmasında ve büyük şehirlere göçün önlenmesinde önemli rol oynayacağı varsayılmaktadır. Balıkçılık turizminin, geleneksel balıkçılığa değer katarak aşırı ve düzensiz avlanmanın azaltılmasında ve deniz kaynaklarının korunmasında önemli bir araç olduğu da bilinmektedir. Öte yandan balıkçılık turizmi, yerel halkla bütünleşme, macera yaşama, doğayla iç içe olma ve gastronomi deneyimi gibi unsurları ile önemli bir alternatif turizm çeşididir. Balıkçılık turizmi, geleneksel balıkçı teknelerinde, bu deneyimi yaşamak isteyen insanların geleneksel metotlarla avlanması ve genel olarak balıkçılıkla ilgili turizm hizmetlerinin sağlanması olarak tanımlanabilir. Bu süreçte balıkçı teknikleri ile av araç gereçlerinin tanıtılması, balık avcılığının deneyimlenmesi, avlanan balıkların geleneksel yöntemlerle pişirilerek tadılması ve deniz ekosisteminin öğrenilmesi gibi faaliyetler balıkçılık turizminin bir parçası olabilmektedir. Günümüzde amatör balıkçılık, özellikle gelişmiş batı ülkelerinde oldukça popüler bir boş zaman faaliyetleri olarak görülmektedir. Örneğin; Avrupa'da yaklaşık 50 milyon civarında amatör balıkçının olduğu bilinmektedir. Finlandiya nüfusunun yaklaşık olarak % 44'ünün düzenli olarak balık tutmaya gittiği ve bunların yarısının tekne ile avlandıkları bilinmektedir. Öte yandan İrlanda'da, deniz aşırı olta balıkçıları balık avcılığına yılda 66 milyon pound harcamaktadırlar. Amatör balıkçılığın ticari balıkçılığa oranda 10 ila 40 kat daha büyük bir ekonomi yaratabileceği hesaplanmaktadır. 2000 yılı kayıtlarına göre Orta ve Doğu Karadeniz'de kayıtlı 2500 civarı teknenin yaklaşık % 90'ı küçük tekne olarak geçmektedir. Söz konusu bu teknelerin 5-9 m uzunluğunda ve 19 hp motor gücünde olduğundan ve yeterli düzeyde teknolojik donanıma sahip olmadığından bulunduğu il sınırlarından daha uzağa gidememektedir. Bu sebeplerden dolayı Doğu Karadeniz'de balıkçılık turizminin geliştirilmesi özellikle bu grup için ekonomik ve sosyal açıdan önemli bir açılım sağlayacaktır. Çünkü balıkçılık turizminin gelişmesi sonucunda ziyaretçi sayısının giderek artması, balıkçıların daha az zamanda daha fazla ekonomik gelir elde etmelerine öte yandan oluşan yeni iş olanakları sayesinde teknelerde çalışan personel sayısında da artışa sebep olacaktır.

**Anahtar Kelimeler:** *Balıkçılık turizmi, Amatör balıkçılık, Alternatif turizm, Balıkçılık.*

**ABSTRACT**

In recent years, as in our other seas, fish stocks tend to decrease continuously in the Eastern Black Sea as a result of increasing competition conditions and excessive and irregular fishing due to the increasing sea pollution. On the other hand, sea fillings built for the purpose of creating urban areas and passing highways in coastal regions, coastal structures such as spurs, breakwaters, fishing shelters and ports, and the discharge of wastes of cities and industrial establishments into the seas also contribute to the negative acceleration of this process. As a result of all these negative developments, it is observed that most of the people who make their living by fishing either quit fishing and turn to

other jobs or migrate to big cities. However, on the one hand, the insufficiency of agricultural lands and industrial establishments on the coasts of the Eastern Black Sea, and on the other hand, the increasing understanding of fish as a rich protein nutrient makes fishing economically and socially indispensable for the region in question. It is assumed that fishing tourism, which has started to attract more attention in recent years, will play an important role in increasing the income of local people who earn their living in this way, creating additional employment and preventing migration to big cities. It is also known that fishing tourism is an important tool in reducing excessive and irregular fishing and protecting marine resources by adding value to traditional fishing. On the other hand, fishing tourism is an important alternative tourism type with elements such as integration with local people, adventure, being in touch with nature and gastronomy experience. Fishing tourism can be defined as the traditional fishing of people who want to have this experience in traditional fishing boats and the provision of tourism services related to fishing in general. In this process, activities such as introducing fishing techniques and fishing gear, experiencing fishing, cooking and tasting fishes with traditional methods and learning the marine ecosystem can be a part of fishing tourism. Today, amateur fishing is seen as a very popular leisure activity, especially in developed western countries. For example; It is known that there are around 50 million amateur fishermen in Europe. It is known that approximately 44% of the Finnish population regularly go fishing and half of them are fishing by boat. In Ireland, on the other hand, overseas anglers spend 66 million pounds a year on fishing. It is calculated that amateur fishing can create an economy 10 to 40 times larger than commercial fishing. According to the records from year 2000, approximately 90% of around 2500 boats registered in the Middle and Eastern Black Sea are small boats. Since these boats are 5-9 m long, have a 19 hp engine power and do not have sufficient technological equipment, they cannot go further than the provincial borders where they are located. For these reasons, the development of fishing tourism in the Eastern Black Sea will provide an important economic and social opening especially for this group. Because, as a result of the development of fishing tourism, the increasing number of visitors will cause fishermen to earn more economic income in less time, on the other hand, thanks to the new job opportunities, the number of personnel working on the boats will increase.

**Keywords:** *Fishing tourism, Amateur fishing, Alternative tourism, Fishing.*



**GİRESUN’DA FINDIK TARIMININ TaTuTa (TARIM-TURİZM-TAKAS) KAPSAMINDA DEĞERLENDİRİLMESİ****EVALUATION OF HAZELNUT FARMING IN GİRESUN WITHIN THE SCOPE OF TATUTA (AGRICULTURE-TOURISM-EXCHANGE)****Dr. Öğr. Üyesi Mehmet ŞİMŞEK***Giresun Üniversitesi, ORCID: ID/0000-0002-7558-5010***ÖZET**

Son yıllarda şehir hayatının yoğun temposundan bunalan insanların turizme yönelik tercihi klasik deniz-kum-güneş turizminden alternatif turizme doğru bir eğilim göstermektedir. Bu durum beraberinde eko-turizm, tarım turizmi ve/veya çiftlik turizmi gibi doğayla ilgili turizm türlerine olan talebi arttırmaktadır. Çünkü insanlar tatil sürecinde ziyaret ettikleri bölgenin kültürel değerlerini, biyolojik çeşitliliğini ve doğal hayata yönelik farklı özelliklerini görme, öğrenme ve deneyimleme arzusu içindedirler. Kırsal turizm, tarım turizmi ve/veya çiftlik turizmi gibi turizm türleri bu tarz talepler sonucu ortaya çıkmıştır. 2002 yılında kurulan Buğday Derneği, başlattığı TaTuTa (Tarım-Turizm-Takas) projesi ile çiftlik sahipleri ve ekolojik turizm ve/veya tarım turizmi faaliyetlerinde bulunmak isteyen gönüllüleri buluşturmaktadır. TaTuTa projesinin yurt dışı ağı ECEAT (European Center for Eco-Agro Tourism/ Avrupa Ekolojik Tarım Turizmi Merkezi) ve WWOOF (World Wide Opportunities on Organic Farms/Organik Çiftliklerde Dünya Çapında Fırsatlar) isimli kuruluşlardır. Söz konusu kuruluşlardan ECEAT, kırsal bölgeleri, organik tarımı ve sürdürülebilir turizmi önemseyen ve alanında Avrupa'nın önde gelen kuruluşlarından. ECEAT bu amaçla her yıl ortalama 500.000 gece konaklama sağlayan seyahatler gerçekleştirmektedir. WWOOF ise wwoofer olarak adlandırılan gönüllüleri, çiftlik sahipleri ile buluşturarak çiftçiliği deneyimlemelerini sağlamaktadır. WWOOF, kurulduğu ülkeye göre düzenlenmekte olup, söz konusu ülkeler kendi WWOOF kurulum ve katılım şartlarını düzenlemektedirler. Buğday Derneği, ECEAT ve WWOOF organizasyonları ile iş birliği gerçekleştirerek TaTuTa projesinin yurt dışında tanıtımının yapılmasını sağlamaktadır. Bu anlamda Karadeniz bölgesinde TaTuTa bünyesinde toplam 25 adet ev sahibi konumunda çiftlik bulunmakta ve bunlardan hiçbiri maalesef Giresun İlinde yer almamaktadır. Oysa Fındığın başkenti diye anılan Giresun'da çoğu küçük ölçekli bahçelerde ve aile işletmeleri ile doğal ve geleneksel haliyle fındık tarımı yapılmaktadır. Özellikle hasat dönemlerinde (Temmuz-Ağustos-Eylül) yoğun işgücüne ihtiyaç duyulmakta, söz konusu işgücü ihtiyacı ise daha çok Güneydoğu Anadolu ve/veya Gürcistan'dan gelen mevsimlik işçilerle karşılanmaya çalışılmaktadır. Bu süreçte mevsimlik işçilerin barınma, sağlık, eğitim ve güvenlik sorunları yanında bölge insanı ile ekonomik ve kültürel çatışma sorunları da yaşanmaktadır. Oysa TaTuTa ve/veya oluşturulacak benzeri organizasyonlar ile söz konusu işgücü ihtiyacı daha ekonomik olarak giderilebileceği gibi, yurtiçi ve yurtdışından gelecek gönüllülerin bölgenin tarihi, kültürel ve doğal güzelliklerini deneyimleme fırsatı yaratılmış olacaktır. Söz konusu gönüllülerin yaşadıkları bu deneyimlerini, tatil dönüşü gerek sosyal paylaşım sitelerinde paylaşımları, gerekse aile, akraba, dost ve arkadaş ortamlarında anlatmaları bölgenin tanıtımı ve turizm anlamında sürdürülebilir gelişimine katkı sağlayacaktır.

**Anahtar Kelimeler:** *Tarım turizmi, Eko turizm, Çiftlik turizmi, TaTuTa.*

**ABSTRACT**

In recent years, people who are overwhelmed by the intense pace of city life tend to prefer alternative tourism to classical sea-sand-sun tourism. This situation increases the demand for nature related tourism types such as eco-tourism, agricultural tourism and/or farm tourism. Because people desire to see, learn and experience the cultural values, biological diversity and different characteristics of the region they visit during their holiday. Tourism types such as rural tourism, agricultural tourism and/or farm tourism have emerged as a result of such demands. Buğday Association that was founded in 2002, brings together farm owners and volunteers who want to engage in ecological tourism and/or agricultural tourism activities with the TaTuTa (Agriculture-Tourism-Barter) project. The international networks of the TaTuTa project are ECEAT (European Center for Eco-Agro Tourism) and WWOOF (World Wide Opportunities on Organic Farms). ECEAT is one of the leading organizations of Europe in its field, which cares about rural areas, organic agriculture and sustainable

tourism. For this purpose, ECEAT carries out trips that provide an average of 500,000 nights of accommodation each year. On the other hand, WWOOF brings together volunteers, called wwoofers, with the farm owners to experience farming. WWOOF is organized differently according to the countries in which it is established, and these countries regulate their own WWOOF establishment and participation conditions. Buğday Association cooperates with ECEAT and WWOOF organizations to promote the TaTuTa project abroad. In this sense, there are a total of 25 homeowner farms within TaTuTa in the Black Sea region, and unfortunately, none of them are located in Giresun Province. However, in Giresun, which is known as the capital of hazelnuts, hazelnut agriculture is carried out in its natural and traditional form, mostly in small-scale gardens and family businesses. Especially during the harvest periods (July-August-September), there is a need for an intensive workforce, and the labor force in question is tried to be met by seasonal workers from Southeastern Anatolia and/or Georgia. In this process, besides the housing, health, education and security problems of seasonal workers, there are also economic and cultural conflict problems with the local people. Whereas, with TaTuTa and/or similar organizations to be established, the labor force requirement can be met more economically, and the volunteers from Turkey and abroad will have the opportunity to experience the historical, cultural and natural beauties of the region. These volunteers will contribute to the promotion of the region and its sustainable development in terms of tourism if they share their experiences on social networking sites after vacation, and also in the environment of family, relatives, friends and friends.

**Keywords:** *Agricultural tourism, Eco tourism, Farm tourism, TaTuTa.*

**BLACK SEA NEIGHBORING COUNTRIES; CAPACITIES OF COOPERATION AND COMPETITION**

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**ABSTRACT**

While Black Sea has rich amounts of natural resources including oil, gas and aquatics in addition to the great transactional importance, the clear lack of a common language, ethnicity, religion or cultural perception weakens the possibility of building a positive space among the diverse countries and nations of this region. However; the endeavor amid at desecuritization of the issues between these states is able to lead to a solution for maximizing the interests of all of them. The importance of such endeavour becomes more evident when the current challenges and tensions in this region and the near regions are observed. For instance, the tensions between Ukraine and Russia, Syrian crisis and the unrests in Karabakh. Regarding all these issues this hypothesis shall be evaluated that the main area of cooperation of the neighboring countries of the Black Sea is the economic field. In this way the Organisation of the Black Sea Economy Cooperation (BSEC) founded in 1992 and the implementation of the regulations of the United Nations Convention on the Law of the Sea passed in 1982 could be the most crucial political and legal institutions. Obviously, the aforesaid gained interests can overflow to other arenas of the relations between these countries and while providing them with the maximum of economic interests, help them improve the security of the region by making an interdependency.

**Keywords:** Black Sea, Interdependency, Cooperation, Desecuritization.

**NEW CHALLENGES IN THE FIELD OF CONSTRUCTION, THE IMPORTANCE OF A FULL ASSESSMENT OF RISK FACTORS AND ENSURING SAFETY****Nino RATIANI***Georgian Technical University Mining and Geology Faculty, Occupational safety and health  
Department Tbilisi, Georgia***Abstract**

Construction is one of the most dangerous industries, which in physical terms is associated with the highest load. Trauma and accident statistics are high. Due to the multidisciplinary nature of employees in the construction sector, considering the impact of harmful and dangerous factors and difficulties of operating construction and transport equipment, construction is one of the most dangerous areas. Risks can be abundant for workers during construction, for instance dropping from a height, trauma, hand and arm vibration syndrome, burning from cement etc. During the 2020-2021 pandemic, various problems arose in the construction sector. The main goal of any construction is to perform the works according to a pre-planned daily schedule, which guarantees completion within the set timeframe. Not so infrequently the reason for the cancelation of the plan-schedule is related to the problems in the supply of construction materials and goods to the facilities. The problem of the construction industry, delays caused by pandemics, the main causes of safety breaches, hazard detection, risk management outcomes are discussed in the article and recommendations are given to improve them. Research methods: Analysis of the theoretical and practical experience of existing means of occupational safety, working on statistical data on traumas and accidents, develop methods for identifying hazards, and assessing risks based on specific examples. Based on theoretical studies and analysis of existing conditions, measures have been developed to improve occupational safety. The importance of the mechanism for predicting unforeseen delays in the construction sector, the cause-and-effect relationship between high statistics of injuries and accidents in conditions of excessive working hours. The complexity of the construction field is presented and analyzed with all clarity, taking into account the multitude of existing risk factors, the stages of risk assessment and management are schematically depicted, the criteria for determining the probability of events. Statistical information and data analysis of construction deaths and injuries are presented, and problems arising in the construction sector during the 2020-2021 pandemic are discussed. The purpose of this study is that to analyze the results of the research of the existing means and measures for protection against sharp fluctuations, instability, harmful and dangerous factors characteristic for the construction sector.

**Keywords:** *Risk management, Dangerous factors, Occupational risk, Identify the threat, Prevention.*

**CONVERSATIONAL AI: DIALOGUE SYSTEMS – INVESTIGATION OF A HYBRID SYMBOLIC AND NEURAL SOLUTION****Seyed Mahmood HASHEMI***KAR University, QAZVIN, Iran***ABSTRACT**

This paper discusses of the rising adoption of conversational AI models due to the emergence of natural language processing (NLP) – statistical and powerful deep learning transformer language models, in the last 2 to 3 years which are disruptive and revolutionary. Conversational AI models have impacted interactions, experiences, business changes, productivity, customer engagement, with omnichannel presence. However, conversational- AI dialogue systems made up of retrieval based and generative responses or an ensemble are challenged as they are not one-shot learning and statistical based approach such as the powerful language models present limited natural language understanding and meaning. Here dialogue planning and management reflects the long-standing issue of refining the accuracy of the interpretation of meaning to provide a realistic dialogue to support the human-to-computer communication. To address this, a two proged strategy is deployed. Firstly, a mature, rich functional linguistic theory Role and reference Grammar is able to explain, describe, cognitive processing and computational adequacies.[1-4] This is discussed, demonstrated and evaluated in earlier work by [5-9] with a proof of concept of linguistically centred conversational agent with simple clauses. Secondly, deep learning transformer language models have excellent accuracy results for some NLP tasks, but not dialogue planning and management. Fusing both strategies, and their technical abilities the requirements and conceptual framework of hybrid, modular symbolic and neural conversational dialogue agent is proposed, with future work.

Conversational AI, natural language processing, transformer language models, dialogue systems, role and reference grammar, hybrid – symbolic and neural solution

**REAL-ESTATE PREDICTION USING MACHINE LEARNING**

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**ABSTRACT**

Nowadays the use of prediction methods is used in most of the area. The rising demand for prediction has made it more popular and a helpful tool. Thus most of us go for prediction most of the time. But there are some cons in it, most of us don't think about the part which was going to happen after the prediction. The prediction is to find the approximate result but we are also able to use the predicted result for further use. The more we use the predicted value, our outcome will attain high usability in future aspects. People are becoming more curious about property value and their predictions. Among those, the real estate value is a very curious one because it is one of the fixed assets. Real estate deals with the land which is the most essential one for all. The land and housing property will be directly related to the country's economy and its growth and fall. The economic growth will be predicted by considering real estate as one of its features for prediction. The home is the one where we all live in and hence it is a mandatory one for all the people who live on earth. For a child, the place where it lives and how its surroundings will make the child grow with good qualities. The environment and surroundings are also important features to take in mind to predict its value. But most of us will only take the building and its physical materials for consideration but the real up and down of the price values depend on those extra surrounding environments which are placed nearby. The main role of the idea is not only to predict the price but also to find some of the possibilities after the prediction has been done successfully. Thus the prediction will not be the end of the idea, it also becomes the beginning of a new one.

**Keywords:** *Property prediction, Find the possibilities of new insights, Machine Learning methods.*

**TWO LEVEL DIFFERENCE BINARY PATTERN  
FOR TEXTURE CLASSIFICATION**

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**ABSTRACT**

This paper explains a structure for comparing texture classification algorithms. The project two level difference binary pattern for texture classification is totally depends on image identification. In texture classification image can be identified by color, Texture and shape. We choosing texture type to identify the images. Texture type is nothing but consists of design or pattern. We have used 4 algorithms namely Twice order variance pattern , Slanted variance pattern, Sign pattern algorithm and Magnitude pattern algorithm. First two algorithm combined to give a histogram and the next two will result in second histogram. The result will be the combination of this two histogram. The objective of these systems is to get the histogram which is as similar as features of the given input image.

**PREDICTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING**

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**ABSTRACT**

In this modern era, kidney disease is one of the dangerous diseases for human beings. In this research, we deal with chronic kidney disease and we apply some machine learning techniques. With the help of machine learning techniques prediction is possible in medical analysis. One basic use of machine learning is the forecast of a result dependent on existing information. The machine takes in designs from the current dataset and afterward applies them to an obscure dataset to anticipate the outcome. We have predicted the accuracy with all the attributes in the first round and then we have predicted with six sets of attributes to check the accuracy difference. Classification is an amazing machine learning procedure that is ordinary utilized for expectation. Chronic Kidney Disease(CKD) is a condition in which the kidneys are damaged and cannot filter blood as they always do. The risk factors of Chronic Kidney Disease(CKD) is Diabetes, High blood pressure, Smoking, Obesity, Heart, and blood vessel disease. The chronic Kidney disease dataset has been collected from the UCI repository. We applied machine learning classification algorithms such as Decision Tree, Naïve Bayes. All the applied techniques were successful in achieving a better result. Among these, we get the best accuracy from the decision tree. To get better results we applied ensemble techniques such as bagging, boosting, voting, stacking. The implementation and results of the proposed system will show the efficiency of the system.

**Keywords:** *Chronic Kidney Disease, Ensemble, Machine Learning, Prediction*



**RESTORATION OF CONTAMINATED SOILS OF ARSENIC (AS) AND LEAD (PB) BY ITS METHOD PHYTOSTABILIZATION. THE CASE OF LAVRIO (GREECE)**

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**ABSTRACT**

Heavy metal soil pollution is still a present global problem and one of the greatest challenges they have to face the current governments of the countries have to face. Heavy metal soil contamination can be attributed to many different sources, such as agricultural and mining activities, industrial and household waste generation, which pose serious risks to both environmental safety and human health.

The area of Lavrio is known from ancient times due to its intense mining activity. It is estimated that the first mining operations started in 3500 BC. for the production of silver and lead. The multi-year operation of the mines in the area of Lavrio has led the area to a great environmental degradation. Lavrio is considered to be one of the most polluted areas in Greece in lead and arsenic. Due to the high concentrations of heavy metals the inhabitants are in great danger. Although almost 30 years have passed since cessation of mining activities, analyzes on land, water, and air show no substantial change..

The purpose of the work is to find alternative forms soil remediation in order to rehabilitate the degraded due to metallurgical activity, urban area of Lavrio, from toxic heavy lead and arsenic metals that pose an immediate risk to the public health of the inhabitants.

To this end, extensive research was initially conducted causes of lead and arsenic infection in the area. Subsequently, the grade was calculated by comparing territorial and epidemiological studies soil and resident pollution. The method chosen after processing the data was phytostabilization. The purpose of using the method is to stabilize harmful pollutants (lead and arsenic) to prevent further transport them to the ground, water and air. Plant species were selected with specific characteristics in order to meet its criteria phytostabilization in combination with the soil-climatic conditions of the area and installation locations were identified.

**Keywords:** *phytoremediation, green technology, heavy metals, remediation, phytostabilization.*

**WASTE PROCESSING FOR ENERGY PURPOSES IN GEORGIA**

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**ABSTRACT**

Georgia's capital city Tbilisi landfill area can be described as follows: In Tbilisi, household waste is almost entirely directed to the selected landfill area. Because there is no law that prohibits a landfill or waste seating arrangement in finding suitable areas, so placing the waste in such a manner will be continued in the future. In Tbilisi there are not landfill gases care, control and collection facilities due to lack of funds. A Hence there are no plans, to reduce landfill gas emissions in the future. Neither Tbilisi nor Georgia operates a Law on landfill gas collection. As a result is continuing generation of methane, which has a great potential for global warming. All that kind of gas emission into the atmosphere causes a large negative impact on the environment. Therefore, because there is no legislative requirement for the collection of methane gas, there are no funds to meet the requirements of the law, methane gas emissions will be continued, if the project will not be realized.

However, such technologies are widely used in Japan and other advanced countries, which have a very positive impact of landfills on the environment (reduce of harmful odours and mitigate the risk of ignition of methane). Such technologies allow the possibility of effective use of energy. The project considers construct of landfill gas flaring system in landfill named Lilo, where will be installed 800 kW (0.8 MW) capacity of gas generator, but it should be construed that firstly must be installed landfill gas collection devices in order to measure the number of landfill gases, to determine the required capacity of the gas generator. If amount of landfill gases will not be needed size or uneven flow characterized, it is possible that the gas generator will not be installed in landfills and occur only methane burn. Besides of reducing greenhouse gas emissions, it is expected that the project will contribute to sustainable development to improve the environment of landfill areas (harmful odours and fire hazard reduction), to replace malfunctioning power generation system with modern processing system, to improve human conditions by introducing new technologies, to create a source of new electricity generation; to creation of new jobs and finally the project has the potential to stimulate the Clean Development Mechanism projects in Georgia.

Energy project must be performed based on the methodology, approved by Clean Development Mechanism (CDM) Executive Board. For Georgian electro system is used Consolidated Methodology of Baseline Level ACM0001 „Flaring or Use of Landfill Gas”.

**BASELINE SCENARIO** - LFG from the landfill site is released to the atmosphere. **PROJECT SCENARIO** - LFG from the landfill site is captured and flared, or used to produce energy e.g. electricity or thermal energy and used to supply consumers through natural gas distribution network.

**Key words:** *Municipal Solid Waste, Clean Development Mechanism, Landfills.*

**GEZGİN SATICI PROBLEMİNİN ARCGIS PROGRAMI İLE ÇÖZÜMÜ VE DİĞER  
YÖNTEMLER İLE KIYASLANMASI**  
SOLUTION OF THE TRAVEL SALES PROBLEM WITH THE ARCGIS PROGRAM AND  
COMPARISON WITH OTHER METHODS

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**ÖZET**

Tüm Dünya’da ve ülkemizde artan nüfus birçok problemi beraberinde getirmektedir. Artan nüfus sonucunda şehirleşme artmakta ve hizmet sektörü önemli hale gelmektedir. İnsanların her türlü ihtiyacını karşılamak için lojistik sektörü ön plana çıkmaktadır. Lojistik kelimesi, ilk üreticiden son tüketiciye kadar olan nakliye, depolama, gümrükleme, ambalajlama, dağıtım gibi tüm süreçlerini ifade eder. Bu önemli sektörün başarılı olabilmesi için ürün ve hizmet gibi kaynakların istenilen zamanda ve ihtiyaç duyulan yerde olması lazımdır. Bu çalışmada, lojistik sektörü için önemli bir problem olan gezgin satıcı problemine bir örnek uygulama ile çözüm getirilmesi amaçlanmaktadır. Gezgin satıcı problemi, düğümler arasındaki mesafeyi en aza indirmekle ilgili tüm noktalara sadece bir kez uğramayı amaçlayan bir problemdir. Bu problemin çözümü için, bir coğrafi bilgi sistemi olan ArcGIS programı kullanılmaktadır. ArcGIS programı gezgin satıcı problemine çözüm olarak tabu arama algoritmasını kullanmaktadır. Gezgin satıcı probleminin çözümü ArcGIS programında bir örnekle gösterilmektedir. Örnek olarak ülkemizde yer alan organize sanayi bölgeleri arasında tek türlü taşımacılık kullanılarak analiz yapılmaktadır. Organize sanayi bölgeleri her ilden 1 tane olmak üzere toplamda 81 tane organize sanayi bölgesi seçilmektedir. Tek türlü taşımacılık karayolu taşımacılığı ile yapılmaktadır. Yapılan tek türlü taşımacılık, başka bir çalışmadan alınan genetik algoritma ve lineer optimizasyon teknikleri ile karşılaştırılmaktadır. Tabu arama algoritması kullanılarak yapılan analiz sonucunda 81 organize sanayi bölgesi arasında yapılan yük taşımacılığı, tek türlü taşımacılık ile 9875 km çıkmaktadır. Çalışmadan alınan ve her ilden 1 tane olmak üzere 81 organize sanayi bölgesi arasında yapılan yük taşımacılığı sonuçlarına bakıldığında, lineer optimizasyon 9923 km, genetik algoritma ise 10698 km çıkmıştır. Çıkan sonuçlara göre tabu arama algoritmasının, genetik algoritma ve lineer optimizasyon tekniklerine göre daha iyi bir sonuç verdiği gözlemlenmektedir.

**Anahtar Kelimeler:** Ulaşım, Yük Taşımacılığı, Gezgin Satıcı Problemi, ArcGIS, Tabu Arama Algoritması

**ABSTRACT**

The growing population in the whole world and in our country brings many problems. As a result of the increasing population, urbanization is increasing and the service sector becomes important. The logistics sector comes to the fore in order to meet all kinds of needs of people. The word logistics refers to all processes such as transportation, storage, customs clearance, packaging, distribution from the first manufacturer to the end consumer. In order for this important sector to be successful, resources such as products and services must be available at the desired time and where they are needed. In this study, it is aimed to solve the traveling salesman problem, which is an important problem for the logistics sector, with a sample application. The traveling salesman problem is a problem that aims to visit all points only once, provided that the distance between nodes is minimized. ArcGIS program, which is a geographic information system, is used to solve this problem. ArcGIS program uses the tabu search algorithm as a solution to the traveling salesman problem. The solution to the traveling salesman problem is shown in an example in the ArcGIS program. As an example, analysis is carried out using one type of transport between organized industrial zones in our country. Organized industrial zones, 1 from each province, a total of 81 organized industrial zones are selected. One kind of transport is carried out by road transport. One type of transportation is compared with the genetic algorithm and linear optimization techniques taken from another study. As a result of the analysis conducted using the Tabu search algorithm, freight transport between 81 organized industrial

zones is 9875 km with one type of transport. Looking at the results of freight transportation between 81 organized industrial zones, including 1 from each province, linear optimization increased to 9923 km and genetic algorithm increased to 10698 km. According to the results, it is observed that the tabu search algorithm gives a better result than the genetic algorithm and linear optimization techniques.

**Keywords:** *Transportation, Freight Transportation, Traveling Salesman Problem, ArcGIS, Tabu Search Algorithm*

**ATIKLARIN GERİ DÖNÜŞÜMÜNDE ROTA OPTİMİZASYONU İÇİN CBS VE SEZGİSEL  
YÖNTEMLERİN KULLANILMASI**  
USING GIS AND INTUITIVE METHODS FOR ROUTE OPTIMIZATION IN WASTE  
RECYCLING

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**ÖZET**

İnsanlar yüzyıllar boyunca doğayla uyum içinde yaşadı. Teknolojinin gelişmesi, sanayileşmenin artmasıyla insanlar doğaya zarar vermeye başladı. Beşeri uygulamaların artması doğada geri dönülemez tahribata neden oldu. Bu geri dönülemez tahribat çevre kadar insan sağlığında da ciddi zararlara neden oldu. Bu olumsuzluklar ve ortaya çıkan hastalıklar insanlarda doğaya karşı farkındalık yarattı. İnsanlar ilk zamanlarda küçük çaplı koruma yöntemleri geliştirdi. Fakat bunun yeterli olmadığını farkına vardılar ve daha büyük çaplı eylemler gerçekleştirmeye başladılar. Bunlardan biri de dünyadaki doğal kaynakların tükenmesini önlemek ve doğanın daha fazla kirlenmesinin önüne geçmek için geri dönüşüm hareketidir. Geri dönüşüm kullanım ömrü bitmiş ürünlerin ve atıkların yeniden değerlendirilmesi için çeşitli yollarla işlenmesidir. Geri dönüşümde atıklar genel olarak işletmelerde hammadde olarak yeniden değerlendirilir ve kullanılır, geri dönüştürülemeyen atıklar ise işletmelerde enerji kaynağı olarak kullanılır. Böylece doğal kaynakların gereksiz yere tüketimi önlenerek tahribi azaltılır. Bu nedenle geri dönüşüm dünyadaki canlı yaşamının devam etmesi için son derece büyük bir öneme sahiptir. Geri dönüşüm bu denli önemliyken belirli toplulukların geri dönüşüm uygulamaları yapması yetersizdir. Geri dönüşümün dünya çapında yayılması ve farkındalığının oluşması hayati öneme sahiptir. Bu nedenle bir çok ülke vatandaşını bilinçlendirmek adına atılımlar yapmaktadır. Bu atılımlardan bazıları her devlet kurumunda farkındalık artırıcı seminerler düzenlemek, devlet kurumlarına geri dönüşüm atıkları için ayrılmış özel toplama kutuları yerleştirmek, sokaklarda geri dönüşümün önemini vurgulayan afişler bulundurmak, geri dönüşümün gerçekleştirilebileceği merkezler kurmaktır. Bu kapsamda bu çalışmada Hatay'ın merkez ilçesi olan Antakya'da bulunan bazı devlet kurumlarının geri dönüşüm atıklarının Çöp ve Geri Dönüşüm Merkezine taşınmasının tersine lojistiğinde en kısa rotanın belirlenmesi için coğrafi bilgi sistemlerinden yararlanılmaktadır. Çalışmada tabu arama algoritması tabanlı coğrafi bilgi sistemi uygulaması olan ArcGIS kullanılarak en kısa rota optimizasyonu yapılmaktadır.

**Anahtar kelimeler:** *Coğrafi Bilgi Sistemi, Geri Dönüşüm, Tabu Arama Algoritması, Tersine Lojistik, ArcGIS.*

**ABSTRACT**

People have lived in harmony with nature for centuries. With the development of technology and the increase in industrialization, people started to harm nature. The increase in human practices has caused irreversible damage to nature. This irreversible damage caused serious damage to human health as well as the environment. These negativities and the resulting diseases created awareness of nature in humans. Humans first developed small-scale protection methods. But they realized that this was not enough and began to take larger-scale actions. One of them is the recycling movement to prevent the depletion of natural resources in the world and to prevent further pollution of nature. Recycling is the processing of end-of-life products and wastes in various ways to recycle them. In recycling, wastes are generally re-evaluated and used as raw materials in enterprises, and non-recyclable wastes are used as energy sources in enterprises. Thus, unnecessary consumption of natural resources is prevented and their destruction is reduced. For this reason, recycling is of utmost importance for the continuation of life on earth. While recycling is so important, recycling practices of certain communities are insufficient. It is vital that recycling spreads and raises awareness around the world. For this reason, many countries are making strides in order to raise awareness of their citizens. Some of these breakthroughs include organizing awareness-raising seminars in each state institution, placing special collection boxes reserved for recycling waste at government institutions, keeping posters emphasizing

the importance of recycling on the streets, and establishing centers where recycling can be carried out. In this context, in this study are used geographical information systems to determine the shortest route in the logistics of the reverse logistics of some state institutions in Antakya, the central district of Hatay, to carry the recycling wastes to the Garbage and Recycling Center. In the study, the shortest route optimization is performed using ArcGIS, a geographic information system application based on a tabu search algorithm.

**Keywords:** *Geographical information system, Recycling, Tabu search algorithm, Reverse Logistic, ArcGIS.*

**OCTAHEDRON KÜMELERİN CEBİRSEL YAPILARA UYGULANMASI  
APPLICATIN OF OCTAHEDRON SETS TO ALGEBRATIC STRUCTURES****Fatma KAHRİMAN***Amasya Üniversitesi, ORCID: 0000-0001-5754-6846***Güzide ŞENEL***Amasya Üniversitesi, ORCID: ID/0000-0003-4052-2631***ABSTRACT**

Theories put forward to deal with uncertainty in mathematics and in all branches of mathematics have always attracted attention. The scientist named Zadeh who made the first studies on this subject is a scientist named Zadeh, and his studies on fuzzy clusters have been accepted and developed all over the world. Following this theory, Pawlak (1982), Atanassov (1983), Atanassov and Gargov (1989), Gau and Buchrer (1993), Coker (1996), Smarandache (1998) and Molodtsov (1999). They introduced the concepts of sets, heuristic fuzzy sets, interval-valued heuristic fuzzy sets, indeterminate sets, heuristic sets, neutrophical sets, and soft sets and presented the applications of these set theories. To provide more information on uncertainty in the continuation of these scientific studies, J. Kim et al. He introduced the concept of octahedron clusters consisting of interval-valued fuzzy clusters, intuitive fuzzy clusters, and fuzzy cluster components. Applications of this cluster concept have also been made. The first of these applications is the Application of Octahedron Sets to Algebraic Structures. In this study, general information about the applications of Octahedron Sets to Algebraic Structures will be given. Some of the topics of our work are: The  $i$ -product of two octahedron clusters, the  $i$ -octahedron subgroupoids of a groupoid, an  $i$ -OLI of a groupoid [ $i$ -ORI and  $i$ -OI, respectively], some features for the image and front image of an  $i$ -octahedron subgroup [ $i$ -OLI,  $i$ -ORI and  $i$ , respectively]. The  $i$ -OI group can be classified under homomorphism. A detailed study will be made on these issues, and the studies on the Application of Octahedron Sets to Algebraic Structures will be compiled.

**Keywords:** *Octahedron cluster, Internal (external) octahedron cluster,  $i$ -junction,  $i$ -intercept, Octahedron point, image and front view of the Octahedron cluster.*

**ÖZET**

Matematikte ve matematikle ilgili tüm bilim dallarında belirsizlikle başa çıkmak için ortaya atılan teoriler her zaman ilgi görmüştür. Bu konuda ilk çalışmaları yapan Zadeh adlı bilim adamı, Zadeh adlı bir bilim insanıdır ve bulanık kümeler üzerine yaptığı çalışmaları tüm dünyada kabul görmüş ve geliştirilmiştir. Bu teoriyi takiben sırasıyla Pawlak (1982), Atanassov (1983), Atanassov ve Gargov (1989), Gau ve Buchrer (1993), Coker (1996), Smarandache (1998) ve Molodtsov (1999). Kümeler, sezgisel bulanık kümeler, aralık değerli sezgisel bulanık kümeler, belirsiz kümeler, sezgisel kümeler, nötronofik kümeler ve esnek kümeler kavramlarını tanıttılar ve bu küme teorilerinin uygulamalarını sundular. Bu bilimsel çalışmaların devamında belirsizlik hakkında daha fazla bilgi sağlamak için J. Kim ve ark. Aralık değerli bulanık kümeler, sezgisel bulanık kümeler ve bulanık küme bileşenlerinden oluşan oktahedron kümesi kavramını tanıttı. Bu küme konseptinin uygulamaları da yapılmıştır. Bu uygulamalardan ilki, Oktahedron Kümelerinin Cebirsel Yapılara Uygulanmasıdır. Bu çalışmada, Oktahedron Kümelerinin Cebirsel Yapılara uygulamaları hakkında genel bir bilgi verilecektir. Çalışmamızın bazı başlıkları şunlardır: İki oktahedron kümesinin  $i$ -çarpımı,  $i$ -oktahedron bir grupoidin alt grupoidleri, bir grupoidin bir  $i$ -OLI'si [sırasıyla,  $i$ -ORI ve  $i$ -OI], bir  $i$ -oktahedron alt grubunun görüntüsü ve ön görüntüsü için bazı özellikler [sırasıyla,  $i$ -OLI,  $i$ -ORI ve  $i$ -OI] grupoid homomorfizm altında olarak sınıflandırılabilir. Bu konularla ilgili detaylı bir çalışma yapılmaya çalışılacak, bugüne kadar Oktahedron Kümelerinin Cebirsel Yapılara Uygulanması konusunda yapılan çalışmalar derlenecektir.

**Anahtar Kelimeler:** *Octahedron küme, Dahili (harici) octahedron küme,  $i$ -birleşim,  $i$ -kesişim, Octahedron noktası, Octahedron kümesinin görüntüsü ve ön görüntüsü.*

ON A FAMILY OF TRIPLY-GENERATED NUMERICAL SEMIGROUPS

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**ABSTRACT**

In this paper, we will get some results for frobenius number, gaps, and determine number of triply-generated telescopic numerical semigroup  $S_k$  and Arf closure of  $S_k$  such that  $S_k = \langle 8, 8k + 6, 8k + 19 \rangle$  where  $k \geq 1, k \in \mathbb{N}$ .

**Key Words:** *Gaps, Telescopic numerical semigroups, Arf closure.*

**MSC:**20M14



**SOME RESULTS ON A CLASS OF NUMERICAL SEMIGROUPS WITH  
MULTIPLICITY 7**

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**ABSTRACT**

In this paper, we will give some results about the symmetric numerical semigroups such that  $S_k = \langle 7, 7k + 2 \rangle$  where  $k \geq 1, k \in \mathbb{N}$ . Also, we will obtain Arf closure of these symmetric numerical semigroups.

**Keywords:** *Symmetric numerical semigroup, Arf closure, genus.*

*2010 AMS Subject Classification: 20M14*

**ESNEK TOPOLOJİK KUASİGRUPLAR**  
**SOFT TOPOLOGICAL QUASIGROUPS****Gulay OGUZ***Harran University, ORCID: 0000-0003-4302-8401***ABSTRACT**

Soft set theory was proposed by Russian researcher Molodtsov as a powerful mathematical approach for dealing with uncertainty and decision-making problems. Studies on this theory, which does not have a long history, are progressing rapidly. The theory has many practical applications in various fields such as engineering, economics, medicine and social science. Many mathematicians have investigated soft set theory in some algebraic and topological structures. Another important concept underlying this study is quasigroups. Quasigroups have many applications, in areas such as topology, geometry, cryptology and theory of fuzzy and rough sets, etc. Presenting a soft topological approach to quasigroups, this study is to throw light on the new notion of soft topological quasigroups. By examining the relations between soft quasigroups and soft topological quasigroups, some important characterizations are also established.

**Keywords:** *Soft set, Soft quasigroup, Topological quasigroup, Soft topological quasigroup.*

**ÖZET**

Esnek küme teorisi, Rus araştırmacı Molodtsov tarafından belirsizlik ve karar verme problemleriyle başa çıkmak için güçlü bir matematiksel yaklaşım olarak önerildi. Uzun bir geçmişe sahip olmayan bu teori üzerindeki çalışmalar hızla ilerlemektedir. Teorinin mühendislik, ekonomi, tıp ve sosyal bilimler gibi çeşitli alanlarda birçok pratik uygulaması vardır. Birçok matematikçi bazı cebirsel ve topolojik yapılarda esnek küme teorisini araştırmıştır. Bu çalışmayı temellendiren bir diğer önemli kavram ise kuasigruplardır. Kuasigrupların topoloji, geometri, kriptoloji, bulanık ve kaba kümeler teorisi gibi alanlarda birçok uygulaması vardır. Kuasigruplara esnek topolojik bir yaklaşım sunan bu çalışma, yeni olan esnek topolojik kuasigrup kavramına ışık tutmayı amaçlamaktadır. Esnek kuasigruplar ve esnek topolojik kuasigruplar arasındaki ilişkiler incelenerek, bazı önemli karakterizasyonlar da oluşturulmuştur.

**Anahtar kelimeler:** *Esnek küme, Esnek kuasigrup, Topolojik kuasigrup, Esnek topolojik kuasigrup.*

**THE EFFECT OF NANOPARTICLES ON MHD BLOOD FLOW IN STRETCHING  
ARTERIAL POROUS VESSEL WITH THE INFLUENCE OF THERMAL RADIATION,  
CHEMICAL REACTION AND HEAT GENERATION /ABSORPTION**

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**ABSTRACT**

Numerical and theoretical analysis of the effect of nanoparticles on MHD blood flow in stretching arterial porous vessel with the influence of thermal radiation, chemical reaction and heat generation/absorption has been examined. The governing non linear partial differential equations of momentum, energy and nanoparticles concentration are converted into ordinary differential equations using similarity transformations which are solved numerically. The dimensionless governing equations are solved using Runge-Kutta- Fehlberg fourth-fifth order along with shooting method. The effect of physical parameters viz., Hartmann number, unsteadiness parameter, permeability parameter, Brownian motion parameter, thermophoresis parameter, thermal radiation parameter, heat source parameter, chemical reaction parameter and Lewis number on flow variables viz., velocity of nanofluid, temperature and nanoparticles concentration has been analyzed and discussed graphically. From the simulation study the following important results are obtained: velocity of nanofluid flow increases with an increment of unsteadiness and permeability parameter; velocity of nanofluid decreases with an increment of Hartmann number; temperature profile of the model problem increases as Brownian motion parameter, thermophoresis parameter, thermal radiation parameter and heat source parameter increases. An increment in Lewis number and chemical reaction parameter results in decrement of nanoparticles concentration of the nanofluid. As the value of thermophoresis parameter increases nanoparticles concentration of the nanofluid increases.

**Keywords:** *Nanoparticles, Brownian motion parameter, thermophoresis parameter, thermal radiation, chemical reaction.*

**THERMAL AND SOLUTAL MARANGONI STAGNATION POINT CASSON HYBRID  
NANO FLUID FLOW OVER A STRETCHING SHEET**

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**ABSTRACT**

The Marangoni flow is convoluted with microgravity and earth gravity, which causes adverse effects in crystal growth experiments. Crystal growth experiments were designed in such a manner so as to appraise MIR (spacestation), which is one of the best platforms for protein crystallization and radiation experiments. This paper deals with thermal solutal Marangoni convection force act on the electrically conducting Casson hybrid nanofluid flow along a permeable horizontal surface. It is presumed that the surface tension varies linearly with the temperature and concentration profiles. Introduce magnetic field perpendicular to the surface, heat generation, first order chemical reaction, Soret and Dufour effects into the governing system. The governing equations are reduced to non-linear ordinary differential equations by using the similarity transformation. Similarity equations are solved using the fourth order Range-Kutta based shooting method. It is important to express the influence different governing parameters on velocity, temperature and concentration profiles through graphs and tables. It is found that the thermal solutal surface tension ratio enhanced the velocity distribution whereas fluid temperature and concentration decreases for the same. Skin friction and local Sherwood number enhanced by introduce of thermal solutal surface tension ratio while the difference is highly significance for local Nusselt number.

**Keywords:** *Hybrid Nanofluid, Marangoni Convection, Heat generation, Chemical Reaction, magnetic Field*

**THE INVERSE PROBLEM FOR THE STURM-LIOUVILLE OPERATOR WITH  
SEMI-SEPARATED BOUNDARY CONDITIONS**

ОБРАТНАЯ ЗАДАЧА ДЛЯ ОПЕРАТОРА ШТУРМА-ЛИУВИЛЛЯ С  
ПОЛУРАСПАДАЮЩИМИСЯ ГРАНИЧНЫМИ УСЛОВИЯМИ

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**ABSTRACT**

Inverse spectral problems consist in recovering operators from some spectral data. Such problems have many applications in natural sciences and technology. The most complete results on inverse problems were obtained for the classical Sturm – Liouville operator on an interval. From the point of view of physical applications, problems of recovering Sturm-Liouville operators with a spectral parameter in the boundary conditions are also of great interest. The application of the Fourier method to mixed problems for equations of mathematical physics, in which time differentiation is included in the boundary conditions, leads to such problems. Similar problems often arise in the study of a number of problems, the construction of systems for protecting devices from shock, vibrations of a string with a load at the end, torsional vibrations of a shaft with a flywheel at the end, vibrations of antennas loaded with lumped capacitors and inductances, etc.

In this paper, we consider the Sturm-Liouville operator with a real coefficient. Boundary conditions are semi-separated: one of these boundary conditions is separated and the other is non-separated. This non-separated boundary condition depends linearly on the spectral parameter. Some spectral properties of the operator are studied. An asymptotic formula for the eigenvalues is given. The question of recovering the coefficients of the Sturm-Liouville equation and boundary conditions is investigated. The formulation of the inverse problem is given, and the uniqueness theorem for recovering the Sturm-Liouville operator from spectral data is proved. The spectra of two boundary value problems are taken as the main spectral data.

**Keywords:** *Sturm-Liouville operator, Non-separated boundary conditions, Inverse problem, Uniqueness theorem*

**NUMERICAL MODELING OF TWO DIMENSIONAL NON-CAPACITY MODEL FOR AGGRADATION AND DEGRADATION BY AN UNSTRUCTURED FINITE VOLUME METHOD WITH A NEW DISCRETIZATION OF THE SOURCE TERM**

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**ABSTRACT**

This work presents a numerical modeling of sediment transport in dam-break flow over mobile bed. The mathematical model is a combination of the shallow water equations for water-sediment mixture, the transport diffusion and the bed morphology change equations. The system is solved by the finite volume Roe scheme, associated with an original treatment of the source term. In order to show the performance of the non-capacity model, the numerical scheme and the impact of the geological nature of the bottom, the method is applied on test cases with different soil type. Through the obtained results, the numerical scheme shows high level of accuracy and robustness.

**Keywords:** *Finite volume method, dam-break, sediment transport, non-capacity model, erodible bed, Roe scheme, aggradation, degradation.*

POSSIBILITIES FOR APPLICATION OF MOBILE IN SITU SAMPLING AND LIDAR  
MONITORING OF PARTICULATE MATTER IN LOWEST ATMOSPHERIC  
BIOAEROSOL

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**ABSTRACT**

The work is focused on the *in situ* reading of the mass concentration of particulate matter (PM) with dimension from 0.65 up to 10  $\mu\text{m}$ , by using of mobile devices for sampling respectively with electronic sensors type: (i) Microcontroller SDS 011 for PM<sub>2.5</sub> and PM<sub>10</sub>, (ii) Absorber with filter collector with filter pore size #3  $\mu\text{m}$  and (iii) Cascade Impactor which was used for quantifying the viable content of atmosphere and size distribution of the PM. Collected PMs and microbial content were studied by Scanning electron microscopy (SEM), X-ray fluorescence systems (EDAX), X-Ray Diffraction (XRD) and PCR methodology for microbiological analysis. The mobile in situ sampling was based on the lidar monitoring data of PM mass concentration remotely studied in the lowest atmospheric layers up to the limited urban area in Bulgarian capital – Sofia in the period March - December 2020. On the figure below the scanning system is presented. SEM analysis show a large variety of PMs Morphology which depend strongly from the season. The X-ray Diffraction pattern show that the pollution depend strongly from the traffic and using heating materials. A large part of the PM are aggregates of a solid core the surface of which is surrounded by numerous small particles. Analysis show that PM<sub>2.5</sub> can be carriers for air microbiota. The results obtained show that lidar could be useful for gathering general data for PM mass concentration. Remote sensing can be very effective when quantitative evaluation of the lidar combined with *in situ* sampling near the lidar beam and qualitative assessment of the microbiota.



**Figure** The Lidar and Lidar scanning over the town

**Keywords:** *Particulate matter (PM); air microbiota; atmospheric bioaerosol, Lidar monitoring*

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COMPARATIVE SURVEY ON VARIOUS ALGORITHMS OF UNDERWATER IMAGE  
ENHANCEMENT

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**ABSTRACT**

Underwater Image Enhancement plays an essential role for obtaining a necessary information from the low clarity images and intensifies the accuracy and precision of the less transparent underwater images. This paper describes about the complete comparative analysis of number of techniques which has been used to improve the contrast, color accuracy, appearance and quality of the underwater images. This survey is used to categorize the different methods used for enhancing various attenuated and scattered images. This paper compares about the different novel algorithms like CLAHE, Color correction method, Dark channel prior, Fusion techniques, Image Dehazing, Wavelength Compensation and Screened Poisson equation used previously for the underwater image enhancement. It helps to review and evaluate the various better quality analysis of an image in each and every algorithm.

**Keywords:** *CLAHE, Color correction method, Dark channel prior, Fusion techniques, Image Dehazing, Wavelength Compensation and Screened Poisson equation*



**EFFECT OF AUTOCLAVE CURING ON THE MECHANICAL PROPERTIES OF UHPC**

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**ABSTRACT**

Although many studies have been performed on ultra-high-performance concrete reinforced with steel fibers, few researchers have investigated the effect of different curing methods on the results of compressive and flexural strengths in this concrete. In this research, two methods of standard and autoclave curing were used with the aim of achieving the desired compressive strength. The effect of replacing zeolite and limestone powder with cement on the mechanical properties of this concrete was also investigated. For research purposes, 36 specimens were fabricated for four-point bending and compressive tests. The results showed that samples containing silica fume achieved a compressive strength of more than 150 MPa using autoclave curing method, while samples containing zeolite provided a compressive strength of more than 120 MPa. The use of limestone powder as an alternative to cement caused a slight reduction in compressive strength and flexural strength, while the use of zeolite significantly affected the results of mechanical properties.

**Keywords:** UHPC, Zeolite, silica fume, Limestone powder, Compressive strength, Mechanical properties.

**YAPAY SİNİR AĞLARI İLE TÜRKÇE OTEL YORUMLARININ SINIFLANDIRILMASI  
CLASSIFICATION OF TURKISH HOTEL REVIEWS BY ARTIFICIAL NEURAL NETWORKS****Ümmügülsüm MENGUTAYCI***Tarsus University ORCID: ID/0000-0001-9861-8957***Hasan TEMURTAŞ***Kütahya Dumlupınar University, ORCID: ID/0000-0001-6738-3024***ÖZET**

İnternet kullanımının artmasıyla birlikte online platformlar da artış göstermiştir. Günümüzde insanlar, pek çok hizmeti internet üzerinden rahat bir şekilde sağlayabilmektedir. Yemek siparişi verebilme, alışveriş ya da otel rezervasyonu yapma imkanına sahiptir. Aynı zamanda aldıkları hizmete yönelik duygu ve düşüncelerini de internet ortamında değerlendirebilmektedir. Bu çalışma kapsamında, online otel rezervasyonu yapan bir sitedeki otellere yönelik yapılan kullanıcı yorumları incelenmiştir. İnsanlar kalmak istedikleri bir otele rezervasyon yaptırmadan önce otelle ilgili yorumları okur ve bu yorumlara göre otel hakkında bir düşünce sahibi olur. Ayrıca otellere gelen yorumlar, işletmeciler için de ticari açıdan büyük önem taşır. Otel işletmesi, müşteri kaybetmek istemeyeceğinden gelen yorumları dikkate alarak hizmet kalitesini iyileştirme yoluna gider. Çalışmada otel yorumları olumlu ve olumsuz duygu belirten yorumlar olarak iki sınıfa ayrılmıştır. Sınıflar belirlenirken 4 ve 5 puan verilen yorumlarda, otelin hizmetinden memnun kalındığını belirten ifadeler olduğundan bu yorumlar olumlu yorum, 1 ve 2 puan verilen yorumlar ise hizmetin kötü olduğunu vurguladığından olumsuz yorum olarak ele alınmıştır. Otel yorumları gerekli ön işlemden geçirildikten sonra tf-idf vektör uzay modeli ile bir matrise dönüştürülmüştür. Tf-idf vektörü ile veri setindeki her bir terimin sınıflandırmadaki önem derecesi belirlenmiştir. Yorumlardan oluşan veri seti, ilk olarak yüzde 80 eğitim yüzde 20 test verisi olacak şekilde ayrıştırılmıştır. Daha sonra aynı veri seti, kfold çarpraz doğrulama kullanılarak eğitim ve test verilerine ayrıştırılmıştır. Farklı şekillerde eğitim ve test verisi olarak oluşturulan veri setine, çeşitli normalizasyon teknikleri uygulanarak yapay sinir ağı ile sınıflandırılması yapılmış ve sonuçları karşılaştırılmıştır. Çalışma sonucunda çarpraz doğrulama ile ayrıştırılan modelin, diğer yöntemlere göre genel olarak daha başarılı olduğu görülmüştür. Uygulanan normalizasyon tekniklerinin ise çalışma kapsamında oluşturulan ağ modelinin başarısı üzerinde etkisi olduğu sonucuna varılmıştır.

**Anahtar kelimeler:** *Metin Sınıflandırma, Yapay Sinir Ağı, Normalizasyon.*

**ABSTRACT**

With the increase in internet usage, online platforms have also increased. Today, people can easily provide many services over the internet. They have the ability to order food, shop or book hotels. At the same time, they can evaluate their feelings and thoughts about the service they receive on the internet. In this study, user comments made for hotels on a site that makes online hotel reservations were examined. People read the comments about the hotel before booking a hotel they want to stay and have a thought about the hotel based on these comments. In addition, the comments received by the hotels are of great commercial importance for the managers. Since the hotel business does not want to lose customers, it tries to improve the quality of service by taking into account the comments. In the study, hotel reviews are divided into two categories as positive and negative comments. While determining the classes, in the comments with 4 and 5 points were considered as positive comments as there were expressions indicating that the hotel was satisfied with the service, and the comments with 1 and 2 points were considered as negative comments because they emphasized that the service was bad. Hotel comments are transformed into a matrix with the tf-idf vector space model after the necessary preprocessing. With the tf-idf vector, the significance level of each term in the data set in the classification was determined. The data set consisting of comments was first decomposed into 80 percent training and 20 percent test data. Then, the same data set was parsed into training and test data using kfold cross validation. Various normalization techniques were applied to the data set, which was created as training and test data in different ways, and classified with artificial neural network and the results were compared. As a result of the study, it was seen that the model that was parsed with cross verification was generally more successful than the other method. It was concluded that the

normalization techniques applied had an effect on the success of the network model created in the study.

**Keywords:** *Text Classification, Artificial Neural Network, Normalization.*

**LABORATORY STUDY OF THE EFFECT OF ROUGH FLOATING PLATE ON THE DIMENSIONS OF THE SCOUR HOLE AROUND THE RECTANGULAR BRIDGE PIER**

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**ABSTRACT**

One of the reasons for the instability of bridges and their eventual destruction is the formation of scour holes around the bridge pier. The dimensions of this hole in a river depend on the flow conditions. Previous research has shown that after the flow attached the pier, the kinetic energy of the flow is converted to head, and due to the non-uniform vertical distribution of the velocity, the resulting pressure is not uniform throughout the depth. Therefore, a downward flow velocity is formed which after hit the bed, the bed sediments is lifted. Also, the combination of the vertical upward component and the horizontal main component of the flow leads to the formation of a helicoidl vortices, which causes the transport of lifted sediment particles to the downstream. As a result of the continuation of this action, the area around the pier is deepened and eventually causes the pier to faile. The rate and depth of scouring in each river depends on the strength of the downward vertical currents, the amount of bed shear stress and the strength of the helical vortices. During the past decades, several methods have been proposed to control the scour depth so far, which is based on the modification of the flow pattern. These methods try to reduce the strength of destructive vortices. In this study, which is performed for the first time, the effect of floating plate on the dimensions of the scouring hole around the rectangular bridge pier has been investigated in a laboratory.

The experiments were performed in a straight rectangular flume 4.0 m long, 0.6 m wide and 0.6 m high. In the flume bed with a thickness of 31.5 cm of sand with an average size of 1.28 mm as bed sediment. Flow rate was equal to 25 liters per second and flow depth was 15 cm. Four different experiments, one control test without a plate and three experiments were performed by placing a rectangular floating plate ( with dimensions 20 cm by 30 cm) on the water surface. The plate is made of wood, the surface of which attached the water was roughened with sand. In plate experiments, the distance from the pier was 0.0, 0.10 and 0.20 m. The duration of the experiments was 6 hours and all experiments were performed under clear water conditions ( $0.95 u_* / u_c$ ). A square pier with dimensions of 3 cm was used. During each experiment, scour depth was taken at different time intervals by a point gauge. At the end of each experiment, the topography of the bed around the pier was taken using a laser meter and plotted using Surfer software. The dimensions of the hole were also taken from the topographic maps.

Figure 1 shows the temporal changes of scour depth for all tests. The results of the experiments show that the amount of scouring depth in the position with the plate attached to the pier is equal to 4.4 cm, which is 25% higher when compared to the control experiment, which had a scouring depth of 3.5 cm. This result shows that by placing the plate upstream of the pier attached to the pier causes the vertical distribution flow pattern to change, which leads to an increase in the strength of the downward vertical component and thus increases the scour depth. In addition to the depth, width, length and height of the downstream stack also increase, respectively. When the plate is located at a distance of 10 cm from the pier, the scour depth was 3.6 cm, which shows a slight change compared to the experiment without the plate. The results of placing the plate at a distance of 20 cm from the pier also showed that the scour depth had slightly changed compared to the control experiment. The results show that as the plate moves away from the base, the flow pattern around the base does not change. The important result of this study is that if a floating object such as ice cubes are placed in front of the base, it will increase the scouring depth. It can also be said that only the flow pattern around the base has the most role in scouring.

**A COMPARATIVE ANALYSIS ON THE SHED VORTICES FROM THE WAKE OF  
FINNED AND FOAM-WRAPPED TUBES**

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**ABSTRACT**

In this study, the shed vortices from the wake of the finned and foam-wrapped tubes have been studied. Particle Image Velocimetry (PIV) was applied to investigate the detached vortices from the wake behind a finned and foam-wrapped tube. The standard case of cross-flow over a bare tube, i.e. no surface extension, was also tested as a benchmark. The experiments were performed for Reynolds number of 2000 based on the mean air velocity and the tube outer diameter. To identify the features of each aforementioned cases, Linear Stochastic Estimation (LSE) was applied to the velocity fields. Results show that unlike fin, adding foam increases the size of detached vortices and amplifies the core strength. Moreover, foam-wrapped tube, in contrast to the finned one, produces strong three-dimensionality features in the flow field. Interestingly, finned tube result show less three-dimensionality compared to those of the bare tube.

**Keywords:** *Metal Foam, Linear Stochastic Estimation, Particle Image Velocimetry*

**PEYZAJ MİMARLIĞI AÇISINDAN KARAVAN ALANLARININ DEĞERLENDİRİLMESİ**  
**EVALUATION OF CARAVAN AREAS IN TERMS OF LANDSCAPE ARCHITECTURE****Doç. Dr. Gül den SANDAL ERZURUMLU***Niğde Ömer Halisdemir University, Faculty of Architecture, Department of Landscape Architecture,  
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Kent ortamının stresinden, yüksek binalarından, trafiğinden ve gürültüsünden sıkılmış olan insanlar doğa ve doğal yaşam ortamlarına yönelmektedirler. İnsanların doğaya olan özlemi günden güne artış göstermektedir. Kentlerde azalan yeşil ve doğal alanlar insanları doğal güzelliklerinin hakim olduğu alanlara sürüklemektedir. Günümüzde kaliteli yaşamın temel gereksinimlerinden biri olan rekreasyon kaynakları giderek çeşitlenmektedir. Örneğin, bir bölgenin flora ve fauna özelliği, jeolojik yapısı ve kültürel özellikleri çeşitlilik sunmaktadır. Son zamanlarda yaşadığımız salgın sürecinin de etkisi ile insanlar çevreye ve yerel kültürlere daha duyarlı hale gelmiştir. Doğal mekanları tercih edenler sabit bir ilçe veya köye yerleşmek yerine taşınabilir yaşam mekanlarını oluşturan karavanları tercih etmektedirler. Dolayısı ile karavan park edilecek alanlar için uygun ortamlar bulmak oldukça zorlaşmaktadır. Deniz kıyısında çadır alanlarının olduğu mekanlar karavan alanı olarak kullanılmaktadır. Fakat, doğa turizmine elverişli bir çok bölgede karavan kamp alanı bulunmamaktadır. Kırsal alanlarda güvenilir ve uygun alanlar tasarlamak o bölgenin ekonomik olarak kalkınmasına katkı sağlamaktadır. Doğal güzelliklerinin olduğu alanlarda planlanan karavan park alanlarının uygun bir şekilde tasarlanması gerekmektedir. Yapılacak peyzaj planlama ve tasarım çalışmalarında alanın estetik, fonksiyonel ve görsel özellikleri dikkate alınması gerekmektedir. Doğayı koruyarak yaşamak, bölgeyi keşfetmek, biyolojik çeşitliliği korumak, kültürel ve tarihi değerleri korumak önem taşımaktadır. İyi planlanmamış ve iyi düzenlenmeyen rekreasyon faaliyetleri içeren karavan kamp alanlarının bozulması, doğanın tahrip edilmesi itici bir faktör olmakta ve bu alanların ekosistem hizmetlerinin sürekliliğini tehlikeye atabilmektedir. Bu çalışmada, rekreasyon faaliyetlerinin geliştirilmesi kapsamında, karavan kamp alanları için uygun alanların nasıl olması gerektiği, uygun ölçülerde park alanlarının tasarlanması ve uygulanabilecek peyzaj tasarımları için öneriler geliştirilecektir. Bu alanlar SWOT analizi ile değerlendirmeye alınacaktır.

**Anahtar kelimeler:** *Karavan kamp alanı, Peyzaj tasarımı, Rekreasyon faaliyetler, Doğa turizmi*

**ABSTRACT**

People who are tired of the stress of the urban environment, high buildings, traffic and noise tend to nature and natural living environments. People's longing for nature is increasing day by day. Decreasing green and natural areas in cities are dragging people to areas where natural beauties prevail. Nowadays, recreation resources, one of the basic requirements of quality life, are increasingly diversified. For example, the flora and fauna feature, geological structure and cultural characteristics of a region offer diversity. With the effect of the epidemic process we have experienced recently, people have become more sensitive to the environment and local cultures. Those who prefer natural spaces prefer caravans that create portable living spaces instead of settling in a fixed district or village. Therefore, it is very difficult to find suitable environments for the areas where the caravan will be parked. The spaces with tent areas on the sea shore are used as caravan areas. However, there aren't caravan camping areas in many areas suitable for nature tourism. Designing safe and suitable areas in rural areas contributes to the economic development of that region.

The caravan parking areas planned in areas with natural beauties should be designed appropriately. The aesthetic, functional and visual features of the area should be taken into account in the landscape planning and design works to be done. It is important to live by protecting nature, to explore the region, to preserve biological diversity, and to preserve cultural and historical values. The deterioration of the caravan camping areas that contain poorly planned and improperly organized recreational activities, the destruction of nature is a driving factor and can jeopardize the continuity of the ecosystem services of these areas. In this study, within the scope of developing recreational activities, suggestions will be developed for how the suitable areas for caravan camping areas should be, how to design park areas in appropriate dimensions and landscape designs that can be applied.

These areas will be evaluated by SWOT analysis.

**Keywords:** *Caravan camping area, Landscape design, Recreation activities, Nature tourism*

**KARAYOL PEYZAJ TASARIMINDA KULLANIM OLANAKLARI OLAN DOĞAL BİTKİLER****NATURAL PLANTS THAT USE IN HIGHWAY LANDSCAPE DESIGN****Doç. Dr. Gülden SANDAL ERZURUMLU***Niğde Ömer Halisdemir University, Faculty of Architecture, Department of Landscape Architecture, Niğde, Turkey ORCID:ID/0000-0001-9664-2902***ÖZET**

Ulaşım, köyler, kentler, ülkeler arasında ya da yerleşim yerleri içinde bir yerden bir yere gidişgelişi sağlayan mekanlar olarak tanımlanmaktadır. Ulaşım ağları çevresinde dinamik, ekolojik ve estetik değer taşıyan ağaç ve çalı türlerinin uygunluğu önemlidir. Bir il, ilçe veya köy girişlerinin peyzaj tasarımları, insanlar üzerinde olumlu etki yaratmakta ve yerleşim mekanına bakış açısını değiştirmektedir. Kentsel yol ağaçlandırma çalışmalarında bitkilerin ya da kullanılan canlı materyalin estetik ve fonksiyonel özelliklerinin yanı sıra ekolojik özellikleri ve yetiştirme koşulları ile ele alınması bu çalışmaların sürdürülebilirliği bağlamında gereklidir. Özellikle, küresel iklim değişikliğinin hakim olduğu son yıllarda artan sıcaklık, kuraklık ve susuzluk doğal bitki kullanımına yönelik çalışmaları arttırmaktadır. Doğal bitkilerin bölgesel alanlara göre farklılık göstermesi peyzaj tasarımında kullanım alanını arttırmaktadır. Tasarım çalışmalarında odunsu bitkilerin tür sayısının fazla ve uzun ömürlü olması nedeniyle kullanım alanı genişler. Odunsu bitkilerin çoğu birden fazla amaçla kullanılabilir potansiyele sahiptir. Rosaceae ve Elaeagnaceae familyasından olan bitki türleri Niğde Kentinde yoğun olarak bulunmaktadır. Karasal iklimin hakim olduğu Niğde Kenti'nde tasarım alanlarında kullanılacak bitki türleri çeşitlilik göstermemektedir. Bu çalışmada, Niğde kentinde doğal olarak gelişen *Prunus mahaleb*, *Prunus dulcis*, *Rosa canina* ve *Eleagnus angustifolia* L. peyzajda kullanım olanağının saptanması için sahip olduğu estetik ve görsel, fonksiyonel, sosyokültürel ve ekolojik özellikleri değerlendirilmiştir. Meyvesi, çiçekleri ve yaprakları ile etkili olan belirlenmiş olan türlerin peyzaj tasarım çalışmalarında tercih nedenleri belirlenmiştir. Bitkilerin sahip olduğu formlar fonksiyonel kullanımını etkilemektedir. Araştırmada yerinde gözlem, ölçüm ve fotoğrafçılık yöntemi kullanılmıştır. Niğde kentinde doğal olarak yetişen bu türlerin tanıtılması ve kentsel yol tasarım çalışmalarında kullanım alanlarının genişletilmesini ve türlerin sürekliliğinin sağlanması amaçlanmaktadır.

**Anahtar Kelimeler:** *Karayolları peyzaj tasarımı, Biyoçeşitlilik, Sürdürülebilirlik, Niğde*

**ABSTRACT**

Transportation is defined as places that provide a movement from one place to another within villages, cities, countries or settlements. The suitability of tree and shrub species with dynamic, ecological and aesthetic value around the transportation networks is important. Landscape designs of a city, district or village entrance create a positive effect on people and change the perspective of the settlement. In urban road afforestation studies, it is necessary to consider the aesthetic and functional characteristics of the plants or living material used, as well as their ecological characteristics and growing conditions, in the context of the sustainability of these studies. Especially, in recent years, when global climate change prevails, increasing temperature, drought and thirst have increased the studies on natural plant use. The fact that the natural plants differ according to the regional areas increases the usage area in landscape design. Design studies of woody plants in the city of Niğde, where the terrestrial climate is dominant, does not vary. In this study, *Prunus mahaleb*, *Prunus dulcis*, *Rosa canina* and *Eleagnus angustifolia* L., which develop naturally in the city of Niğde, have been evaluated for their aesthetic and visual, functional, sociocultural and ecological characteristics in order to determine the possibility of use in the landscape. The preference reasons of the determined species that are effective with their fruits, flowers and leaves in landscape design studies have been determined. The forms that plants have affect their functional use. In the research, on-site observation, measurement and photography method was used. It is aimed to introduce these species that grow naturally in the city of Niğde, to expand their usage areas in urban road design studies and to ensure the continuity of the species.

**Keywords:** *Highways landscape design, Biodiversity, Sustainability, Niğde*

**INFLUENCE OF SUBUNIT AND LINKAGE SEQUENCES ON THE DYNAMICS AND STRUCTURE OF LIGNIN****Derya VURAL***Giresun University, ORCID: ID/0000-0002-0120-3024***ABSTRACT**

Lignocellulosic biomass is the most abundant and renewable energy source in nature. Lignin, hemicellulose and cellulose are its major components. Lignin is a complex and amorphous polymer contained in the cell walls of plants. It limits the accessibility of cellulose by acting as a barrier between enzyme and cellulose, thus its role in the recalcitrance of lignocellulosic biomass is crucial. The dynamics and structure of lignin have been extensively investigated by using experimental and computational techniques. The molecular structure of lignin consists of a random sequence of three types of monomers (“subunits”) connected by linkages, and its average chemical composition is determined by using two dimensional (2D) nuclear magnetic resonance (NMR) spectroscopy. The impact of the sequences of subunit and linkage on the dynamics of lignin has not yet been fully elucidated. Here, we performed the molecular dynamics (MD) simulation for four hydrated lignin polymers at 300 and 400 K. In order to investigate relationship between the dynamics of lignin and its sequence, these four models were constructed as having the same average chemical composition of the stem lignin in Vanilla, but the different linkage and subunit sequences. The simulations performed characterize the structure and dynamics of lignin through a variety of measurement including radius of gyration, mean square displacement, incoherent intermediate scattering function, inter- and intra-molecular hydrogen bonds. The results indicate that the different subunit and linkage sequences do not significantly affect the structure and dynamics of lignin.

**Keywords:** *Lignocellulosic Biomass, Lignin, Molecular Dynamic Simulation, Dynamics*



**PEYZAJ UYGULAMALARINDA KULLANILAN ALET VE EKİPMANLAR  
TOOLS AND EQUIPMENT USED IN LANDSCAPE APPLICATIONS****Seda BAYRAM***Çanakkale Onsekiz Mart University, ORCID: ID/0000-0002-2314-1821***Alper SAĞLIK***Çanakkale Onsekiz Mart University, ORCID: ID/0000-0003-1156-1201***ÖZET**

Ülkemizde giderek artan yapılaşma ve hızlı gelişme süreci toplumu kapalı alanlara hapsedmekte ve açık yeşil alanlardan mahrum bırakmaktadır. Bunun sebebi ise artan nüfus ve gereksinimler doğrultusunda barınma ihtiyacının artması, yaşam standartlarının yükselmesidir. İnsanlar bu doğrultuda ihtiyaçlarını giderebilmek adına hayatın yoğun temposuna ayak uydurmakta ve çalışmak zorunda kalmaktadır. Toplumdaki bireyler hayatın yorucu akışından ve stresten biraz da olsa uzaklaşabilecekleri mekanlar aramaktadır. Bu doğrultuda kent içerisinde yer alan açık yeşil alanlar giderek önem kazanmaktadır. Rekreasyonel gereksinimlere ihtiyaç duyulması doğrultusunda devreye peyzaj girmektedir. 19. yüzyılda literatüre giren peyzaj terimi o zamanlar bir yer yüzü parçasının genel karakteri olarak tanımlanmıştır. Çevremize baktığımızda görülebilecek her şey peyzaj olarak tanımlanabilmektedir. Peyzaj mimarlığı ise bu etrafımızdaki görsel şöleni bize sunan uygulayıcılardır. İlk olarak Peyzaj mimarı terimi de 19. yüzyılda literatüre giriş yapmıştır. Günümüze kadar da kendini geliştirerek gelmeyi başarmıştır. Peyzaj Mimarlığında tasarım önce fikir olarak ortaya çıkmaktadır. Fikir olgunlaştıktan sonra kağıda ya da dijital bir ortama aktarılarak fikrin ötesine geçip bir tasarım oluşturur. Tasarım bu noktadan sonra alıcısıyla ya da uygulayıcısıyla buluşur. Peyzaj, çalışmalarında insana fonksiyonel, estetik ve ekonomik çözümler üreterek daha yaşanabilir bir çevre oluşturmayı amaçlamaktadır. Uygulama esnasında insan gücünün yetersiz kaldığı noktalarda birçok alet ve ekipman kullanımı görülmektedir. Bu alet ve ekipmanların kullanımı uygulamada zaman tasarrufu sağlamak ve işleyişi büyük bir ölçüde kolaylaştırmaktadır. Bu çalışma alet ve ekipmanların kullanımı ve işlevlerine yönelik bir araştırmadır. Bu sayede uygulama sırasında ihtiyaç duyulan alet ve ekipman ile ilgili gerekli tüm bilgilere ulaşım kolaylaştırılmıştır. Doğru ve hızlı bir uygulama gerçekleştirilebilmesi için bu çalışma bir kılavuz niteliğindedir.

**Anahtar Kelimeler:** *Peyzaj, Peyzaj Mimarı, Alet ve Ekipman, Uygulama, Tasarım*

**ABSTRACT**

The increasing construction process and rapid development in our country limits the society to closed areas and deprives them of green spaces. The reason for this is that accommodation and living standards have increased in line with the increasing population and needs. In this direction, people need to keep up with the busy life tempo and work to meet their requirements. People is looking for places to escape from the tiring life fluency and stress of life. In this direction, open green areas in the city are becoming increasingly important. Landscape comes into play in line with the need for recreational needs. The term landscape, which entered the literature in the 19th century, was defined as the general character of a piece of earth. When we look at our environment, everything that can be seen can be described as landscape. Landscape architecture, on the other hand, is the practitioner who offers us this visual feast around us. First, the term Landscape architect entered the literature in the 19th century. It has managed to come by improving itself until today. In Landscape Architecture, a design first exists as an idea. After the development of idea, it is transferred to paper or a digital medium and goes beyond the idea and creates a design. After this point, the design meets with its buyer or practitioner. It is aimed to create a more livable environment by producing functional, aesthetic and economical solutions in landscape works. Many tools and equipment are used at points where manpower is insufficient during the application. The use of these tools and equipment saves time in practice and greatly facilitates the operation. This study is a research on the use and functions of tools and equipment. In this way, access to all necessary information about the tools and equipment needed during the application has been facilitated. This study is a guide for accurate and fast implementation.

**Keywords:** *Landscape, Landscape Architecture, Tools and Equipment, Application,*

**ON PRINCIPLES OF ORGANIZING THE INTERNATIONAL ART EVENTS IN  
AZERBAIJAN****Dilara VAHABOVA***Azerbaijan University Architecture and Construction- Azerbaijan***ABSTRACT**

There is a great number of problems and difficult issues which the organizers of Biennales or any other large international exhibitions can face. Some of them – like financial support, quantity and “quality” of the participants, the countries involved, technical issues, duration and so – are obvious. I would point on the problem which is extremely important in forming the final image, the total result of the whole event which is the problem of venues appropriate for different projects to be displayed.

Scholastically, this is a problem of the ensemble where all the elements form the unified whole and each element is to be correlated to others. Any artistic structure should be clear in its idea, let’s say – completed “script”, so the viewer or the visitor would have some certain – a single!- feeling – whether positive or negative but reflecting his/her own position towards what he/she saw at the exhibition. The feeling of clearness in world vision (maybe the most desirable in our lives as a whole) along with philosophical meaning so important for any art work, is exactly one of the decisive factors in perceiving the exposition. In the context of biennale, this problem really becomes actual because any large scaled event can be easily turned out into a some kind of a fair, an irregular multitude where one can be lost, not to grasp the main idea, or the goal, the conception of the organizers.

Taking place in ancient traditional cities in each case these events are characterized by local specific features. And this is natural despite of international – Universal! – content which the contemporary art production is supposed to be. Every region, every city (town, village) has the individually marked, the different architectural infrastructure formed through the centuries. Every region has the historical and traditional background, the economic conditions, and the political ambitions of its own.

I’d like to concern the experience of keeping the International Biennale of the Conceptual Art “Aluminium” (Baku Biennale) the 6<sup>th</sup> event of which took place in Baku in November 2019.

Baku is an ancient city with rich historical background. The infrastructure of city has been formed since the Middle Ages and then completed at the turn of the 19<sup>th</sup>-20<sup>th</sup> centuries. Thus there is a permanent problem in organizing large art events which is a venue that would be able to provide the unified presentation of all the projects of the Biennale. There is a number of large exhibition sites appropriate for such events in Baku. They are located quite far from the city centre thus being not easily accessible for common public. By this reason we normally prefer to use various galleries or cultural sites concentrated mainly in the city centre as the venues for the Biennale projects. The number and kinds of such points is variable according to the projects proposed by the participants. Some of places could be really non-traditional, as, for example, the space of aquarium in the Baku Zoo where, in some year, the installations and performance right inside of the aquariums were shown.

The Baku Biennale has been held in Baku since 2003 and always arouses great interest from the artists and curators of both Azerbaijan and foreign countries. As a rule, exhibitions within the framework of the Biennale are held in the halls of various galleries throughout the center of the city thus attracting not only the professionally interested public, but the guests and Baku citizens who just happened to be near the venue of this or that exhibition.

During the preparatory period the images of the venues are sending out to perspective participants, so the artists do know what kind of space is available, and are able to adopt their projects to possible site. Through the years of holding the Baku Biennale the curators have established close cooperation with the Office of the Historical and Architectural Reserve "Icherisheher", that provided the organizers with the opportunity to use the halls of the Shirvanshahs' Palace (Divan-khane, Shah mosque, cellars), and also the territory of the State Ethnographic Reserve "Gala" for the projects.

The Shirvanshahs Palace – an architectural ensemble of the 16<sup>th</sup> century – can be considered as a really attractive case among the Biennale’s venues. Being an exciting monument, a masterpiece of the medieval Near Eastern architecture consisted of the numerous large and small halls, corridors and cellars, the Palace usually provokes the modern artists for the extraordinary decisions in conceptual projects (many of them, as a rule, are specially conceived for vaults, corners or walls in the Palace).

Indeed, the participants (and the hosts of course!) manifested a high extent of flexibility and understanding what the artistic ensemble should be, so the medieval space of the Palace successfully accepted the modern objects, and the exposition as a whole demonstrated the happy union of the distant past and of the recent present.

In the last Biennale of 2019 we engaged the territory of the State Ethnographic Reserve "Gala" as a site for the projects. Gala is one of the oldest settlements in Absheron, dating to the 3-rd millennium B.C. There are numerous structures representing not only the reconstruction of various aspects of the life of Azerbaijanis in antiquity, but also a wide exposition of archaeological finds - rock paintings, tableware, tools of ancient masters, etc., this open-air museum had become extremely interesting for the foreign participants. Thus many of them chose this reserve as a point for their projects. Among them were installations, video art shown inside of ancient mosque, a number of performances.

At first glance, the choice of the Gala ethnographic reserve as an exhibition space was quite unusual for the Biennale format. However, the goal of the curator was to show in this context the works that, in their content and style, would correspond to the general character and atmosphere of the given object. Despite the remoteness from the city, the projects prepared and shown here became bright episodes in the Biennale program.

Among the principles applied by curator in preparation of Biennale is focusing mainly on curatorial projects. Though the individuals also participate in the exhibitions. In spite of plenty of the venues each exhibition is characterized by an absolutely individual "face", so every participant has a chance to maximally reveal his/her creative potential.

Every Biennale carried out in Baku is traditionally concluded with the conference "Contemporary Art Today: Achievements, Problems, Prospects", during which the curators of projects and participants spoke about their creative activities, their most striking exhibition projects in recent years, and raised a number of theoretical issues as well.

Information support for the Biennale is provided by all TV channels operating in our republic, as well as by newspapers and Internet portals. During the course of the event the participants normally are invited to the morning TV programs.

Even a brief review of the Baku Biennale shows how interesting, varied and creative the program of this event is. It is also important that the guests of the Biennale not only showed their works and got acquainted with the modern art of Azerbaijan, but also generally got acquainted with our culture and our capital. Indeed, a fruitful dialogue took place between the artists from different countries as representatives of their cultures and traditions. The Baku Biennale undoubtedly brings people from various corners of the world closer together, thereby contributing to the strengthening of ties between countries.

THE CORRELATION BETWEEN EFL TEACHERS' PRACTICES REGARDING LEARNER AUTONOMY AND THEIR GENDER

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**ABSTRACT**

Learner autonomy has been the critical concern of a number of researchers in English language teaching (ELT). The concept has begun life since the 1980s. It has been considered in the Moroccan English as a foreign language (EFL, henceforth) context among the priorities of education, which English as a foreign language teachers try to implement in their classes in line with principles of andragogy. As such, the present study aims at investigating the extent to which EFL teachers promote autonomy in their learners. To achieve this purpose, a quantitative research design was employed in the study. Through this design, quantitative data was generated and analyzed. Therefore, a sample of 96 (57 males and 39 females) EFL teachers completed the questionnaires. Findings revealed that EFL teachers promote learner autonomy to a great extent and that the results were conclusive among the teachers' rates of levels of agreement and disagreement regarding the strategies for promoting learner autonomy. In addition, it was also found that their practices regarding learner autonomy was not correlated with their gender. Thus, it is concluded that the study reported on the extent to which teachers employ a number of strategies to promote learner autonomy, and that it does not necessarily mean that the study explained the degree to which teachers know how to implement those strategies, as this would be beyond the purpose of the present study. Finally, a set of implications for educators and practitioners will be discussed.

**Keywords:** *Andragogy, Autonomy Models, EFL Teachers, Learner Autonomy, Moroccan Schools.*

A SURVEY OF FOODS AND RECIPES NAMED AFTER THE BLACK SEA

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**ABSTRACT**

Various countries and cultures adjoin the Black Sea; therefore, it is not surprising that some foods and recipes are named after it. This paper will survey foods which include *Black Sea* in their names. One can find, for example, a *Black Sea Salad*, a *Black Sea Cake*, a *Black Sea Doner*, *Black Sea Toast*, and a *Black Sea Sandwich*. In fact, there is even a mixed drink called simply *Black Sea*, although its connection with the Black Sea may be tenuous. Possible explanations for the inclusion of *Black Sea* in food names will be discussed. In cases where there is more than one instance of a type of food named after the Black Sea, their ingredients will be compared. Sources will include cookbooks and restaurant menus (which are available online). The focus will be on food and recipe names in English, but those in other languages will also be brought up, e.g. in French the *Salade de la mer noire à la feta et aux olives* ('Black Sea Salad with Feta and Olives') and in German the *Wintersalat Schwarzes Meer* ('Black Sea Winter Salad'). In the case of menus, the locations of restaurants listing dishes named after the Black Sea will be examined to see whether one can discover any trends about their popularity in different regions and countries.

**Keywords:** *food names, toponyms, onomastics*

TEMEL ASTRONOMİ KONULARININ ÖĞRENCİ MERKEZLİ EĞİTİM MODELİ İLE  
SANAL ORTAMDA ÖĞRETİMİ  
TEACHING OF BASIC ASTRONOMY SUBJECTS IN VIRTUAL ENVIRONMENT WITH THE  
STUDENT-CENTERED EDUCATION MODEL

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**ABSTRACT**

The universal appeal of astronomical concepts and images have been a matter of curiosity in every period from past to present, and has contributed greatly to the development of astronomy and indirectly to the development of science. Because it is a branch of science that includes many disciplines such as physics, chemistry, biology, and mathematics. The aim of this study is to examine the changes in the success of preservice science teachers by using a student-centered education model. The sample of the study consists of 93 preservice science teachers studying in the last year of the Education Faculty of Ondokuz Mayıs University. "Astronomy Achievement Test" with 7 questions was used as a quantitative data collection tool. As a result of the analysis of the data obtained, it was observed that there was a significant increase in the success of the teacher candidates with the education model applied. However, it has been determined that the misconceptions about the features of the Moon and the scientific processes of the phases of the Moon continue at a certain level.

**Keywords:** *Science education, astronomy education, basic astronomy subjects, student-centered education.*

**ÖZET**

Astronomiyle ilgili kavramların ve imgelerin sahip olduğu evrensel çekicilik geçmişten günümüze her dönemde merak konusu olmuş olup, astronomi alanının gelişmesine ve dolaylı olarak da fen bilimlerinin gelişmesine çok büyük katkıda bulunmuştur. Çünkü astronomi; fizik, kimya, biyoloji ve matematik gibi birçok disiplini içerisinde barındıran bir bilim dalıdır. Bu çalışmanın amacı, öğrenciyi merkeze alan bir eğitim modeli kullanarak Fen Bilimleri öğretmen adaylarının başarı durumlarındaki değişimleri incelemektir. Çalışmanın örneklemini Ondokuz Mayıs Üniversitesi Eğitim Fakültesi'nde son sınıfta öğrenim gören 93 Fen Bilimleri öğretmen adayı oluşturmaktadır. Nicel veri toplama aracı olarak 7 soruluk "Astronomi Başarı Testi" kullanılmıştır. Elde edilen verilerin analizi sonucunda, uygulanan eğitim modeli ile öğretmen adaylarının başarı durumlarında belirgin bir artış olduğu görülmüştür. Ancak Ay'ın özellikleri ve Ay'ın evrelerinin bilimsel süreçleri konusunda kavram yanlışlarının belli bir düzeyde devam ettiği belirlenmiştir.

**Anahtar Kelimeler:** *Fen eğitimi, astronomi eğitimi, temel astronomi kavramları, öğrenci merkezli eğitim.*

**ADVERTISING GIVES ITS WORD**

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**ABSTRACT**

The lexis in advertising is a "charged weapon." It is both a means of communication and disunity, a means of self-expression and manipulation - enslavement of language stereotypes. It is noted that among the irritants that cause an emotional reaction in a person, the word takes the most important place. It affects a person many times more than any other factor. The meaning of the word, its semantics, which causes certain associations, takes a special meaning in ad. The word has a strong and specific effect on the ad recipient. The purpose of advertising is to influence the consumer, to convince him of the correctness of what is said/written through words that can cause important associations.

The verbal lexis makes advertising information effective, more convincing, expressive, dynamic, intrusive and manipulative, since it directly calls for action. We can easily find in any ads very common words like "*Look at the action ... and buy ....*" - "*Choose ... and Purchase ...*". The verbs of influence that are most often used in the imperative include, for example, like these ones: *to trust – trust (yourself); to help - help (yourself); to enjoy – enjoy (yourself)*. In the English advertisement the verbs *try, feel, taste* are commonly used. The verbal lexis is a powerful means of persuasion, as it induces and urges, tries to persuade a customer to buy the advertised product.

**SEMANTIC PROPERTIES OF MOTIVATORS AND THEIR INFLUENCE ON THE  
POTENTIAL OF MOTIVATS WHEN MODELING WORDS OF WORDS**

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**ABSTRACT**

In the study, the basic components of cognitive linguistics are rethought and, in a number of respects, refined and supplemented, which makes it possible to adapt its most important theoretical postulates and elements of the metalanguage to the study of complex units of the word-formation system. Based on the thesis fundamental for the cognitive direction, previously unknown different structural, semantic and functional features of two complex word-formation units and the connections between them are revealed and explained. The author sees the goal of showing how the semantics of producing words affects their derivational potential, semantic properties and derivative relations.

**Keywords:** *word formation rows, word formation nests, semantics, motivation, complex units of word formation.*



**SYNTAX AS A WAY OF EXPRESSING EMOTIONS****Olena PANCHENKO***Oles Honchar Dnipro National University, Department of Translation and Linguistic training of Foreigners, Dnipro, Ukraine***ABSTRACT**

Studying foreign languages, unfortunately, too often neglects the possibility of syntax. We aim to prove the role of syntax in expressing emotions, emotions of fear in particular. Expression of fear on the grammatical level is often represented in the use of exclamatory sentences, parenthetical words, negative constructions and also imperative mood. The more is the state of fear, the higher is disorganization of syntactical structure. Interruptions, repetition, unfinished syntactical constructions, parceling – all of them are indicators of a high-concentrated emotion. Exclamatory sentences are unique type of utterances, in which formally-syntactical meaning combines with additional connotation. Exclamations being uncontrollable verbal breakthrough of emotions accompany as a rule cries for help.

The author achieves certain emotional degree of utterances with the help of well-considered combinations of syntactic means, which reinforce emotive potential of means on all other layers, and thus intensify utterances, reflect author's worldview through the prism of mental experience of imaginary information receiver. Negations translate one's unwillingness to accept the situation that evokes strong emotion of fear. Concentration of various syntactic means on creation of the atmosphere of fear, such as rhetorical questions, parenthetical words and word-combinations are the evidence of special way to represent concept of fear on the text level.

One-member sentences are of special importance when conveying emotion of fear directly in characters' speech. The author often uses verbs in imperative mood. Such sentences are usually arranged with exclamatory mark and convey request for help. Simple sentences are used by the author to add dynamics to the narration. At the same time these sentences help to increase emotional atmosphere of fear. Parenthetical construction adds special emphasis to the non-verbal manifestation of emotion, thus intensifying it. Expletive constructions that are marked with dashes or brackets are thought to have stronger emotional coloring and provide stronger expression of the text in comparison with parenthetical words, marked by commas.

Unfinished, interrupted syntactic constructions express emotion of fear in general verbal representation of linguistic image. They reflect characters' inner state of mind, their thinking process and inability to concentrate when experiencing intense emotion of fear. Repetitions intensify emotive tone of the atmosphere of fear, which usually is expressed with the help of means of direct lexico-semantic nomination. Various fragments of utterances may be repeated.

Along with repetition, parceling construction in emotive syntax is an effective mean to convey emotion of fear and according feelings. Parceling, as an expressing mean of emotive syntax, is aimed at deepening of meaning and emotional emphasize on provided information. It allows the author to realize her intentions and facilitate adequate interpretation of text by readers.

**Key words:** *syntax, syntactic structure, grammar, sentence, emotions*

**THE DIFFICULTIES FACED BY MOROCCAN GRADUATE STUDENTS DURING THE  
COMPLETION  
OF THEIR RESEARCH**

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**ABSTRACT**

Research is a difficult task that requires particular skills. This paper attempts to explore the challenges faced by Moroccan graduate students when they are carrying out their research in the final year, from their point of view. Around 71 subjects participated in this study and they were from different departments. The research instrument was a questionnaire administered to students. The results from study showed that the students faced difficulties during the completion of their research, such as: difficulty in deciding the topic for research, lack of good knowledge of the methodology, inability of finding modern, specialized and related references, lack of time, and research guiding. Based on these results, it is necessary to train students in research methodology and to accompany them during the realization of their research work.

**Keywords:** *Research, Challenges, Moroccan graduate students.*

**THE EFFECT OF THE FLIPPED CLASSROOM MODEL ON IRANIAN ENGLISH FOREIGN LANGUAGE LEARNERS: CRITICAL THINKING AND MOTIVATION IN ENGLISH LANGUAGE GRAMMAR**

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**ABSTRACT**

Flipped Learning is a rather new approach to teaching. In this approach, the place of teacher's lectures in the classroom and homework assignments are exchanged to enhance active learning, critical thinking, and motivation. The aim of this research was to determine the effect of the flipped classroom model on intermediate and upper-intermediate learners' critical thinking and motivation in learning English grammar. In the current study, the quasi-experimental research was used. This research was conducted within the English course for six weeks' period in the summer term in 2019. Three hundred and sixty English learners have been chosen through multi-stage cluster sampling from four different institutes. They randomly assigned to control and experimental groups. Data collected as a pre-test and post-test. Among fifty grammar videos, eight grammar contents based on CVI (content validity index) CVR (content validity ratio) (0.42, 0.79) were selected. Questionnaires' validity was checked by some experts and their reliability was checked through Cronbach's Alpha test. Questionnaires were Hermense (motivation,  $\alpha=0.97$ ) and SEI (engagement,  $\alpha=0.93$ ). In the current study, descriptive statistics, and ANCOVA tests were used in the analysis of the quantitative data. Results indicated that learners in the flipped classroom performed better than learners in the traditional class. It was concluded that there was a significant difference between the pre-test and post-test scores of the experimental group whereas there was no significant difference between the pre-test and post-test scores of the control group. The findings of this study carry important implications for foreign language syllabus designers, language instructors, etc.

**Keywords:** *critical thinking, flipped classroom model, motivation*

**THE RELATIONSHIP BETWEEN THE EFL LEARNERS' INTERPERSONAL INTELLIGENCE, THE FREQUENCY AND TYPES OF INFORMAL FALLACY AND EVIDENCE IN ARGUMENTATIVE WRITING**

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**ABSTRACT**

The present study was an investigation of the relationship between the EFL learners' interpersonal intelligence, the frequency and types of informal fallacy and evidence in argumentative writing. Few studies have been conducted to investigate this issues. To this end, 356 second grade female senior state high school students in Zanjan/Iran from 4 senior high schools of Zanjan were selected through multistage cluster random sampling (MCRS) method and based on Cambridge placement test (2010), 130 students proved to be upper-intermediate and participated in this correlational study. The main data collection stage took place during 1 month. The students provided their answers to the quantitative component of this study which was McKenzie's MI Questionnaire in order to identify their interpersonal intelligence profile. The informal fallacies based on Johnson' (1998) definitions and four types of evidence categorized in Hoeke and Hustinx (2003) were identified and counted within language learners' argumentative writings. The evaluation of the arguments was also conducted based on Walton, Reed and Macagno (2010). In order to analyze the research questions, descriptive statistics were used and in order to test the hypotheses a Spearman correlation was employed. Based on the results achieved from the first research question, there was a significant negative correlation between Iranian upper-intermediate EFL learners' interpersonal intelligence and the frequency of informal fallacies. Based on the results achieved from the second research question, there was a significant negative correlation between Iranian upper-intermediate EFL learners' interpersonal intelligence and the frequency of evidences.

**Keywords:** *Argumentative Writing, Evidence, Interpersonal Intelligence, Informal Fallacy*

**SPEAKING SKILLS AT DIFFERENT LEVELS: THE IMPACT OF PODCASTS AND VODCASTS AMONG IRANIAN MOTIVATED EFL LEARNERS OF ENGLISH**

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**ABSTRACT**

Podcast and vodcast have been around for over a decade. This phenomenon has led many educators to return to this medium and ask questions regarding the meaningful integration for teaching and learning. In the current study, the aim is to determine the effect of podcasts and vodcasts on Iranian motivated learners' improvement in speaking skills. Quasi-experimental was used in this research. To this end, 250 intermediate and advanced learners aged 18- 35 who were studying English as a foreign language in Ayandegera institute, Zanjan, Iran in the summer of 2020 were asked to answer the items of two questionnaires. The researchers used purposive sampling in order to do so. In order to compare the differences between the effect of podcast and vodcast, the experimental group was divided into two groups. The first group was given podcast files and the second group was given vodcast files. Among 60 podcast files and 50 vodcast files, 10 podcasts and 10 vodcasts were chosen according to Lawsh CVR and CVI (0.42, 0.79) formula. An IELTS exam's speaking test was chosen as the pre-test and another test of the same book was chosen as the post-test. In the current study, descriptive statistics, ANCOVA Test was used in the analysis of the quantitative data. It was concluded that there is a significant difference between the pre-test and post-test scores of the experimental group in both podcast and vodcast groups, whereas there is little significant difference between the pre-test and post-test scores of the control group.

**Keywords:** *CALL, motivation, podcast, technology, vodcast*

**THE IMPORTANCE OF READING 2.0 ON MEETING THE NEEDS OF DIGITAL GENERATION**

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**ABSTRACT**

Facing the challenge of the Fourth Industrial Revolution, automation, artificial intelligent and robots make the global and local environment more unpredictable and difficult to navigate. How to get the next generation ready for the changes. Education may be one of the big concerns. As reading is the foundation of learning, many educators wonder the new way of reading to cope for the ever-changing interconnected world of the cyber age. Lots of research were found upon the difference between reading print books and ebooks, including the effectiveness on promoting literacy, reading comprehension abilities and reading skills. However, not many researches have been conducted in this field on the new ways of reading so as to change the mindset of the young readers when they come across “words” at the initial stage. How to enable learners have the research mindset in reading? How to facilitate learners to organize information after reading? How to help readers with different abilities or disabilities Reading to Learn? The reading reform, Reading 2.0, could be the answer. Reading 2.0 marks the paradigm shift in reading, Reading to Learn and enquiry-based learning. The innovative concept of Reading 2.0 was first introduced to public by Helen Chan at a knowledge exchange seminar at the University of Hong Kong in 2017. It was published online by one of the Hong Kong’s top digital media, HK01, in 2018. It was then shared at the Hong Kong Public Library (Tsuen Wan) in 2019 and included in the Hong Kong Public Libraries’ Newsletter in 2019. Community dialogue continuously enhanced upon Reading 2.0 when a series of teacher and parent educational seminars were carried out these two years. Reading 2.0 undoubtedly propels both print book reading and eReading. It guides us to understand the complexity and the needs of digital generation. It empowers the community to adopt the advanced reading practice to equip the life-long learners with a growth mindset in facing the uncertain, volatile and ambiguous technological world.

**Keywords:** *Fourth Industrial Revolution, reading, Reading to Learn, life-long learning*

**SERAMİK SAĞLIK GEREÇLERİ ÜRETİMİNDE ERGİTİCİ OLARAK NEFELİNLİ  
SİYENİT**  
NEPHELINE SYENITE AS FLUX IN CERAMIC SANITARYWARE MANUFACTURING

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**ABSTRACT**

The largest fields of consumption of nepheline syenite are the glass and ceramic industries. Its not containing free silica, containing high alkali and alumina, high melting power, and narrow melting range are ideal characteristics for the glass industry. Its field of use in various branches of the industry and the largest reserves of this valuable raw material whose quantity is rapidly increasing are found in Russia, Canada, Norway, Brazil, China, and Turkey. Its mining in Turkey is done in the Akpınar region of Kırşehir. As a result of nepheline syenite being seen as an expensive raw material other than its being accustomed to in terms of industrialists in Turkey, it is being consumed at low quantities. It has also been seen that scientific studies in an academic sense about this raw material, which has not been shown sufficient interest, are limited. In this work, the influences of nepheline syenite in Kırşehir (Turkey) on ceramic body properties were investigated. Samples of nepheline syenite were collected from the Akpınar deposit in Kırşehir. Nepheline syenite samples in different sizes were used instead of sodium feldspar in sanitary ware. Five different compositions were obtained by using nepheline syenite. Shrinkage, colour, water absorption, strength and deformation measurements of all samples were determined. The vitrification behaviour of sanitary ware bodies was evaluated using an thermogravimetric and differential scanning calorimetry (DSC/TGA), mineralogical and phase analysis of samples were analyzed by X-ray diffraction (XRD), microstructure analysis were analyzed by scanning electron microscope (SEM).

**Keywords:** Nepheline Syenite, Ceramic Sanitaryware, Industrial Raw Materials

**ÖZET**

Nefelinli siyenitin en büyük tüketim alanları cam ve seramik sanayileridir. Serbest silis içermemesi, yüksek alkali ve alümina içermesi, yüksek ergitme gücü ve dar erime aralığı, cam endüstrisine ideal uyum gösteren karakteristiklerdir. Endüstrinin çeşitli kollarında kullanım alanı ve miktarı hızla artan bu değerli hammaddenin en büyük rezervleri Rusya, Kanada, Norveç, Brezilya, Çin ve Türkiye’de bulunmaktadır. Türkiye’deki madenciligi, Kırşehir ilinin Akpınar bölgesinde yapılmaktadır. Türkiye’deki sanayiciler açısından, nefelinli siyenitin alışılmışın dışında pahalı bir hammadde olarak görülmesi sonucunda, tüketimi düşük miktarlarda olmaktadır. Yeterince ilgi gösterilmeyen bu hammadde hakkında akademik anlamdaki bilimsel çalışmaların sınırlı kaldığı da görülmüştür. Bu çalışmada nefelinli siyenitin seramik bünyenin özelliklerine etkileri araştırılmıştır. Nefelinli siyenit örnekleri Kırşehir ilinin Akpınar bölgesinden temin edilmiştir. Sağlık gereçleri bünyesindeki sodyum feldispat yerine farklı boyutlardaki nefelinli siyenit örnekleri kullanılmıştır. Nefelinli siyenit kullanılarak beş ayrı kompozisyon elde edilmiştir. Tüm numuneler üzerinde küçülme, renk, su emme, mukavemet ve deformasyon ölçümleri yapılmıştır. Sağlık gereçleri bünyelerinin sinterleme davranışı termogravimetrik ve diferansiyel taramalı kalorimetri cihazı (DSC/TGA), mineralojik ve faz analizleri X-ışınları kırınımı cihazı (XRD), mikroyapı incelemesi taramalı elektron mikroskobu (SEM) ile yapılmıştır.

**Not:** Bu çalışmanın gerçekleşmesinde 118M224 numaralı proje ile maddi destek sağlayan TÜBİTAK’a teşekkür ederiz.

**Anahtar Kelimeler:** Nefelinli Siyenit, Seramik Sağlık Gereçleri, Endüstriyel Hammadde

**Au/POLİ (N-VİNİLKAPROLAKTAM)/p-Si/Al HETEROEKLEMİNİN SICAKLIĞA BAĞLI OLARAK AKIM-VOLTAJ (I-V) KARAKTERİSTİĞİNİN ANALİZİ**

ANALYSIS OF CURRENT-VOLTAGE (I-V) CHARACTERISTICS OF Au / POLY (N-VINYLCAPROLACTAM) / p-Si / Al HETEROJUNCTION DEPENDING ON TEMPERATURE

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**ABSTRACT**

In this study; p-Si crystal was used which has the 1-10  $\Omega\text{cm}$  resistivity, the thickness of 400  $\mu\text{m}$  and the direction of [100]. Firstly, Al metal was coated on the matte surface of the crystal using thermal evaporation method. The other surface of the crystal was coated with Poly (N-vinyl caprolactam) material using the spin coating method. After, Au metal was evaporated on these interface material by thermal evaporation method. Thus, Au/p-Si/Al and Au/Poly (N-vinyl caprolactam)/ p-Si/Al heterojunctions were obtained. For these structures the I-V (current-voltage) characteristics were examined at room temperature, it is determined that the Poly (N-vinyl caprolactam) material causes improvements in the electrical properties of the diode. This has been attributed to the fact that Poly (N-vinylcaprolactam) material is an electrically conductive material. I-V (current-voltage) measurements of Au/Poly (N-vinyl caprolactam)/ p-Si/Al heterojunction were taken for different temperature values. Using the these measurements, some basic diode parameters such as ideality factor (n), barrier height ( $\Phi_b$ ) and series resistance ( $R_s$ ) of the diode were calculated using different methods (Thermionic Emission, Cheung and Norde functions). It was observed that the barrier height values increases with increasing temperature, also the ideality factor and the series resistance values decrease with increasing temperature. These changes in diode parameters due to temperature can be attributed to secondary mechanisms occurring at the contact interface and to the disruption of the homogeneous structure of the barrier height by the defects originating from the interface. In addition, C-V (capacity-voltage) measurements of Au/p-Si/Al and Au/Poly (N-vinyl caprolactam)/ p-Si/Al were taken at room temperature for different frequency values. Using the C-V (capacitance-voltage) measurements of the diode, the Fermi energy level, diffusion potential, carrier concentration and barrier height values were calculated for different frequency values. It has been determined that the capacitance value of the diode decreases with increasing frequency from the C-V measurements. This situation is attributed to the inability of the interface states to follow alternative current frequencies at low frequencies, while at high frequencies they cannot follow alternative current frequencies.

**Keywords:** *Poly (N-vinyl caprolactam), Heterojunction, Cheung Method, Norde Functions, Thermionic Emission.*

**ÖZET**

Bu çalışmada; 1-10  $\Omega\text{cm}$  direncine, 400  $\mu\text{m}$  kalınlığına ve [100] doğrultusuna sahip p-Si kristali kullanılmıştır. İlk olarak, termal buharlaştırma yöntemi kullanılarak kristalin mat olan yüzeyine Al metali kaplanmıştır. Kristalin diğer yüzeyi, spin kaplama yöntemi kullanılarak Poli (N-vinil kaprolaktam) malzemesi ile kaplanmıştır. Daha sonra, Au metali termal buharlaştırma metodu ile bu arayüzey malzemesi üzerine buharlaştırılmıştır. Böylece Au/p-Si/Al ve Au/Poly (N-vinil kaprolaktam)/p-Si/Al heteroeklemleri elde edilmiştir. Elde edilen bu yapılar için I-V (akım-voltaj) karakteristikleri oda sıcaklığında incelenmiş, Poli (N-vinilkaprolaktam) malzemesinin diyotun elektriksel özelliklerinde iyileşmeye neden olduğu belirlenmiştir. Bu durum, Poli (N-vinilkaprolaktam) malzemenin elektriksel olarak iletken bir malzeme olmasına atfedilmiştir. Au/ Poli (N-vinilkaprolaktam)/ p-Si/Al heteroekleminin I-V (akım-voltaj) ölçümleri farklı sıcaklık değerleri için alınmıştır. Bu ölçümler kullanılarak, diyotun idealite faktörü (n), engel yüksekliği ( $\Phi_b$ ) ve seri direnci ( $R_s$ ) gibi bazı temel diyot parametreleri, farklı yöntemler (Termiyonik Emisyon, Cheung ve Norde fonksiyonları) kullanılarak hesaplanmıştır. Sıcaklık arttıkça engel yüksekliği değerlerinin arttığı, ayrıca idealite faktörü ve seri direnç değerlerinin artan sıcaklıkla azaldığı görülmüştür. Diyot



parametrelerindeki sıcaklık nedeniyle meydana gelen bu deęişiklikler, kontak arayüzeyinde meydana gelen ikincil mekanizmalara ve arayüzeyden kaynaklanan kusurlar ile engel yüksekliğinin homojen yapısının bozulmasına atfedilmiştir. Ayrıca farklı frekans deęerleri için oda sıcaklığında Au/p-Si/Al ve Au/Poli(N-vinil kaprolaktam)/p-Si/Al heteroeklemleri için C-V (kapasite-voltaj) ölçümleri alınmıştır. Diyotun C-V (kapasite-voltaj) ölçümleri kullanılarak Fermi enerji seviyesi, difüzyon potansiyeli, taşıyıcı konsantrasyonu ve engel yüksekliği deęerleri farklı frekans deęerleri için hesaplanmıştır. Diyotlar için alınan C-V ölçümlerinden artan frekansla kapasite deęerinin azaldığı belirlenmiştir. Bu durum, arayüzey hallerinin düşük frekanslarda alternatif akım frekanslarını takip ederken yüksek frekanslarda alternatif akım frekanslarını takip edememesine atfedilmiştir.

**Anahtar Kelimeler:** Poli (N-vinil kaprolaktam), Heteroeklem, Cheung Metodu, Norde Fonksiyonu, Termiyonik Emisyon

**BİR METAL KAPLAMA ENDÜSTRİSİNİN ATIKSU ARITIM PERFORMANSININ  
DEĞERLENDİRİLMESİ**  
EVALUATION OF WASTEWATER TREATMENT PERFORMANCE OF A METAL COATING  
INDUSTRY

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**ABSTRACT**

The metal coating industry, which is one of the industrial activities, has an important place among the rapidly developing branches of industry. The wastes generated by the production activities of this industry bring along various environmental problems and negatively affect the quality of air, water and soil, which are indispensable for our lives. In metal coating industries, after the metal parts are coated in the coating baths, their surfaces are cleaned in rinsing baths. During this cleaning, some of the coating bath solution on the coating surface passes to the rinsing waters. For this reason, rinsing bath solutions are constantly changed and removed from the system. These rinsing waters contain toxic heavy metals (Pb, Cd, Ni, Cu, As, Sb, Sn, etc.) and various carcinogenic substances that cause environmental pollution. If the wastewater generated from this industry is discharged without proper treatment, it can harm both the environment and human beings through the food chain with various toxic substances it contains. For this reason, wastewater should be recycled, reused or treated in accordance with discharge standards before being discharged at the source. In this study, chemical wastewater treatment plant performance and performance enhancement options were evaluated by considering the electrochemical coating process of a company that carries out production in Merzifon Organized Industrial Zone in Amasya. The results of the analysis made when the treatment efficiency of the cyanide group, hydroxyl group and acid-containing chemicals used in the coating lines of the facility is examined Chemical Oxygen Demand (COD) 83%, Total chromium (Cr<sup>+6</sup>) 99%, Total cyanide (CN<sup>-</sup>) 100%, Iron (Fe<sup>+2</sup>) 75%, Copper (Cu<sup>+2</sup>) 96% and Sulphate (SO<sub>4</sub><sup>-2</sup>) 46% removal efficiency has been determined. According to the cascade system used in rinsing waters, 34.4% water savings were achieved in average water consumption compared to 2016. The main objectives of sustainable production and environment are to reduce wastewater generation, recover valuable heavy metals from the waste water and reuse them in the process. For this purpose, in our study, treatment options are presented in order to achieve higher performance in the treatment of sulphate ions, which have the lowest efficiency in wastewater removal at the plant.

**Keywords:** *Heavy metal recovery, metal coating industry, wastewater treatment options*

**ÖZET**

Endüstriyel faaliyetlerden biri olan metal kaplama sanayisi, hızla gelişen sanayi dalları arasında önemli bir yere sahiptir. Bu endüstrinin üretim faaliyetlerine bağlı olarak çıkan atıklar çeşitli çevre sorunlarını da beraberinde getirmektedir ve yaşamımız için vazgeçilmez olan hava, su ve toprak kalitesini olumsuz yönde etkilemektedir. Metal kaplama endüstrilerinde metal parçalar kaplama banyolarında kaplandıktan sonra durulama banyolarında yüzeyleri temizlenir. Bu temizleme sırasında durulama sularına, kaplama yüzeyinde bulunan kaplama banyo çözeltisinin bir kısmı geçer. Bu nedenle durulama banyo çözeltileri sürekli değiştirilerek sistemden uzaklaştırılır. Bu durulama suları çevre kirliliğine neden olan toksik ağır metaller (Pb, Cd, Ni, Cu, As, Sb, Sn, vb.), çeşitli kanserojen maddeler içermektedir. Bu endüstriden ortaya çıkan atıksular, uygun bir arıtım yapılmadan deşarj edilirse içerdiği çeşitli toksik maddelerle hem çevreye hemde besin zinciri yoluyla insanoğluna zarar verebilmektedir. Bu nedenle atıksuların kaynakta geri kazanımı, yeniden kullanımı ya da deşarj edilmeden önce deşarj standartlarına uygun olarak arıtılması gerekmektedir. Bu çalışmada Amasya, Merzifon Organize Sanayi Bölgesinde üretim faaliyeti yürütmekte olan bir firmanın elektrokimyasal kaplama prosesi ele alınarak, kimyasal atıksu arıtma tesisi performansı, performans artırma

seenekleri deęerlendirilmiřtir. Tesisin kaplama hatlarında kullanılan siyanür grubu, hidroksil grubu ve asit içerikli kimyasalların arıtma verimleri inceledięinde yapılan analizler sonucu Kimyasal Oksijen İhtiyacı (KOİ) % 83, Toplam krom (Cr<sup>+6</sup>) % 99, Toplam siyanür (CN<sup>-</sup>) % 100, Demir (Fe<sup>+2</sup>) % 75, Bakır (Cu<sup>+2</sup>) % 96 ve Sülfat (SO<sub>4</sub><sup>-2</sup>) % 46 verimle giderildięi belirlenmiřtir. Durulama sularında kullanılan kaskat sistemine göre ortalama su tüketiminde 2016 yılına göre % 34.4 lük su tasarrufu saęlanmıřtır. Atıksu oluşumunu azaltmak, oluşan atıksudan deęerli ağır metalleri geri kazanıp proses içinde tekrar kullanmak sürdürülebilir üretim ve çevrenin temel amaçlarındandır. Bu amaçla alışmamızda, tesiste oluşan atıksu gideriminde en düşük verime sahip olan sülfat iyonlarının arıtılmasında daha yüksek performans saęlanması amacıyla arıtım seenekleri sunulmuřtur.

**Anahtar Kelimeler:** *Aęır metal geri kazanımı, metal kaplama endüstrisi, atıksu arıtım seenekleri*

**MATEMATİKTE PİSAGOR TEOREMİ VE İSPATLARI ÜZERİNE  
ON PYTHAGORAS THEOREM AND PROOFS IN MATHEMATIC****Veli AKARSU***Bülent Ecevit University, Zonguldak Vocational School, Department Architecture and Urban  
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Turkey ORCID: ID/0000-0001-8471-1464***ABSTRACT**

Pythagorean theorem, the well-known geometric theorem that the sum of the squares on the legs of a right triangle is equal to the square on the hypotenuse (the side opposite the right angle)—or, in familiar algebraic notation,  $a^2 + b^2 = c^2$  Pythagorean theorem one of the earliest theorem who known to ancient civilizations. Nowadays, this famous theorem named after Pythagoras, the Greek mathematician and philosopher. Pythagoras established a School of Mathematics in Cortona, Greek port city in Southern Italy. Although Pythagoras made many contributions to mathematics, some of his works are thought to belong to his students. The Pythagorean Theorem is Pythagoras' most important contribution to mathematics. According to the legends, when he discovered the theorem he sacrificed an ox to show his happiness. One of the discoveries he discovered after the Pythagorean theorem is that the square root two is an irrational number. This greatly disturbed Pythagoras and his colleagues due to the fact that they believed that any two length ratios were multiples of one length unit. On the other hand, they tried hard to hide the fact that the two squares were irrational. Even the students who revealed this secret are said to have drowned at sea. Pythagoras Another expression of his theorem is as follows. "The area of a square built on the hypotenuse of a right triangle is equal to the sum of the squares' fields." The Pythagorean Theorem can be introduced to students during their secondary school years. This theorem is increasingly it turns out to be more important. Expressing the Pythagorean Theorem with only algebraic symbols is not enough. Students also need to see geometric relationships. Of the Pythagorean Theorem teaching and learning, dot paper, geometric cards, paper folding and computer technology as well as it can be enriched and improved through the use of many other teaching materials. In this work, only two of the 500 proofs of the Pythagorean theorem to date provided. The first is the proof of the Pythagorean theorem made by Euclid. This theorem are elements of the euclidean. In the first book of the famous 13-volume geometry book. This is a Pythagorean theorem. The secondary school years of the geometry expert Hüseyin Demir .It will be a stylish Pythagorean proof that he did. In addition, what the Pythagorean theorem did to the development of mathematics. In addition to its contribution, examples of its use in explaining some theories in physics are given.

**Keywords:** *Mathematics, Pythagorean Theorem, Number, Proof*

**ÖZET**

Bir köşesi dik açı olan düzlem üçgende, dik açığa komşu kenarların uzunluklarının kareleri toplamı, dik açı karşındaki kenarın (hipotenüsün) karesine eşit olan teorem, Pisagor teoremi olarak anılır. Pisagor Teoremi, eski uygarlıkların bildiği en eski teoremlerden biridir. Günümüzde bu ünlü teorem, Yunanlı matematikçi ve filozof olan, Pisagor adıyla anılmaktadır. Pisagor, Güney İtalya'da bir liman kenti olan Cortona'da bir Matematik Okulu kurmuştur. Pisagor, matematiğe birçok katkısı yapmıştır. Bu katkılardan bazılarının öğrencileri tarafından yapılmış olduğu ifade edilmektedir. Pisagor Teoremi, Pisagor'un matematiğe yaptığı en önemli katkısıdır. Efsaneye göre, Pisagor teoremi keşfettiğinde, mutluluğunu bir öküzü kurbanı ederek paylaşmıştır. Daha sonraki keşfi ise,  $\sqrt{2}$  sayısının irrasyonel olmasının bulunmasıdır. Yani,  $\sqrt{2}$  sayısının iki tamsayının oranı olarak ifade edilememesidir. Bu durum, Pisagor ve takipçilerini büyük ölçüde rahatsız etmiştir. Herhangi iki uzunluğun oranının bir birim uzunluğun katları olduğuna inandılar. Diğer yandan ise  $\sqrt{2}$  'nin irrasyonel olduğu gerçeğini gizlemek için birçok girişimde bulundular. Hatta bu sırrı açıklayan bir öğrencisinin denizde boğdurulduğu rivayet edilir. Pisagor Teoremi, dik açı içeren özel düzlem üçgenler hakkında bir teoremdir. Pisagor Teoreminin diğer bir ifadesi ise şöyledir:

"Bir dik üçgenin hipotenüsü üzerine kurulan bir karenin alanı, diğer kenarlar üzerinde kurulan karelerin alanlarının toplamına eşittir."

Pisagor Teoremi, ortaokul yıllarında öğrencilere tanıtılabilir. Bu teorem, lise yıllarında giderek daha önemli olduğu anlaşılır. Pisagor Teoreminin sadece cebirsel semboller ile ifade etmek yeterli değildir. Öğrencilerin geometrik ilişkileri de görmeleri gerekir. Pisagor Teoreminin öğretimi ve öğrenimi, noktalı kağıt, geometrik kartlar, kağıt katlama ve bilgisayar teknolojisinin yanı sıra diğer birçok öğretim materyalinin kullanılmasıyla zenginleştirilebilir ve geliştirilebilir. Bu çalışmada, Pisagor Teoreminin günümüze kadar yapılan 500 ispatından sadece ikisi verilmiştir. Birincisi, Öklid'in yaptığı Pisagor Teoremi ispatıdır. Bu teorem, Öklid'in Elemanlar adlı 13 ciltlik meşhur geometri kitabının, birinci kitabında verilmiştir. Pisagor Teoreminin bu ispatının yanında, ikinci ispatı olarak, ülkemizde geometrici Hüseyin Demir'in ortaokul yıllarında yaptığı şık bir Pisagor ispatı olacaktır. Ayrıca, Pisagor teoreminin matematiğin gelişimine yaptığı katkı yanında, fizikte bazı teorilerin açıklanmasında kullanılması örnekleri verilmiştir.

**Anahtar Kelimeler:** *Matematik, Sayı, Pisagor Teoremi, İspat*

**THE HYDROGEN SULFIDE LAYER AND THE ECOLOGICAL BALANCE OF THE  
BLACK SEA**

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**ABSTRACT**

The Black Sea is a unique reservoir with a vertical zoning of the ecosystem, with an oxygen-rich surface layer, cold intermediate and deep oxygen-free layer with a high content of hydrogen sulfide. Water exchange occurs between the upper layers, although small-scale mixing processes are also observed with the deep layer, which causes environmental problems.

In Georgia, over the past decade, research on the Black Sea shelf for the presence of oil and gas fields has been actively conducted. Exploration activities and oil production can be associated with various risks of disruption of the ecological balance of the hydrosphere. This is due to anthropogenic interference in the deep hydrogen sulfide layer. Hydrogen sulfide can form accumulations and in the case of its penetration into the upper layer and contact with the air becomes explosive. The seismic activity of the region is also important, which increases the risk of accidents. A risk factor is also working in a highly corrosive hydrogen sulfide environment, which leads to the failure of metal structures.

In addition to anthropogenic factors affecting the environment we have studied hydrogen sulfide contamination of waters that can be caused by the natural vertical migration of gas seeps from the bottom of the Black Sea.

The above factors can have an extremely negative impact on the ecological balance of both the Black Sea shelf and the coastal zone. In this regard, we have identified strategically important tasks that require solutions for the environmental and economic security of the region.

**Keywords:** *vertical zoning; hydrogen sulfide layer; gas seeps; ecological balance.*

**MITIGATION OF POWER SYSTEM VULNERABILITY BY ENERGY STORAGE SYSTEMS**

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**ABSTRACT**

One of the primary concerns of power system formulation and execution are vulnerability assessment. According to recent results, energy storage systems like supercapacitors and ultra capacitors have a high scope for use in eliminating power systems vulnerability and identify the best location for energy storage system placement. The procedure is used in distribution systems in this case. Consider a radial distribution system, the load flow study of a radial distribution network interrupted by distributed generators capable of injecting actual power into the systems. For IEEE 13 and IEEE 33 bus distribution systems, simulation is performed to show the feasibility of the projected system under various loading conditions for constant power and composite load models. Gauss's seidel algorithm includes load flow analysis to identify vulnerable buses. The test results indicates that the introduction of energy storage systems in vulnerable buses will effectively reduce power system vulnerability.

**THERMAL EFFECT OF HARMONIC AND SHORT CIRCUIT IN UNDERGROUND  
ELECTRIC CABLE**

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**ABSTRACT**

The purpose of this study is to evaluate the thermal effect of underground high voltage electric cable, because these power lines produce heat transfer interaction. The aim of this work shows a numerical simulation of the thermal effect of 400 kV line in three cases: permanent and short circuit, presence of the harmonic, with finite element resolution using Comsol Multiphysics software. The results obtained show the magnetic field generated by the underground lines and the magnitude variation of heat transfer distribution near and the electric cable in the permanent and transient state. The results can be used to evaluate the losses and know the heat impact on aging and mechanical deformation of different parts of underground cable.

**Keywords:** *Underground, cables, harmonic, heat, thermal effect.*



**ELECTROMAGNETIC SIMULATION OF UNDERGROUND POWER CABLE  
PERFORATION BY NAIL**

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**ABSTRACT**

The purpose of this work is to simulate the electromagnetic field of underground power cable of high voltage aggression by nail. The aim of this paper present a numerical simulation of the 400 kV power line with aggression through a metallic nails, in the different structures or positions. The simulation results for a longitudinal and radial perforation defect show the distribution variation of magnetic flux density and electric field around the electric cable. The electromagnetic characteristics and distribution change in magnitude and frequencies and shape. The electromagnetic calculation and measurement give an important signal to detect the many defects of underground electric power cable.

**Keywords:** *damage, underground, cable, electromagnetic, nail, defect.*

**ELECTROMAGNETIC SIMULATION OF SUBSEA POWER CABLE POLLUTION**

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**ABSTRACT**

The purpose of this study is to evaluate the electromagnetic field of submarine cable of very high voltage pollution. The aim of this work shows a numerical simulation of the electromagnetic field of 400 kV.

From results for a longitudinal section we observe and evaluate the distribution and the variation of electromagnetic field near the cable.

The magnetic field increase and become very important when the current will be very important. These electromagnetic analysis results help to detect defects in submarine cables.

**Keywords:** *underground, magnetic, nail, defect, power.*

**BIMETALLIC CATALYST FOR GAS DIFFUSION ELECTRODES (GDEs)**

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**ABSTRACT**

Metal air batteries using rechargeable air electrode and metal electrode are of great interest due to the increased energy consumption and attractive characteristics of their components. The development of GDE is based on gas-permeable and alkali-electrolyte-resistant gas diffusion materials, forming a gas-diffusion layer GDL. An active layer (AL) of one or more catalysts responsible for the oxygen reduction reaction (ORR) and the oxygen evolution reaction (OER) is applied directly to the thus obtained GDL. Hydrophobized Vulcan XC-72 type, with a degree of teflonisation of 60% by weight, was used for the gas layer. The catalytic structure was created by depositing of a mixture of catalysts containing  $\text{Co}_3\text{O}_4$  and Silver with weight ratio between the two components 1:1. The polarisation and charge/discharge tests were carried out in a half cell configuration in 6M KOH. The charge/discharge time was 45/30 min, respectively. Long-term tests of GDEs showed very good mechanical stability of over 300 charge/discharge cycles.

**Keywords:** *metal-air batteries, gas diffusion electrode, catalyst*

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**SUSTA-THROMBOCYTE INTERACTIONS IN PIGLETS**

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**ABSTRACT**

The important element in the functioning of hemostasis in the body of a piglet is platelet aggregation activity. The degree of its severity in piglets largely controls the functional state of primary hemostasis and the severity of microcirculation in their tissues, determining the formation of many functional mechanisms. The aggregation activity of platelets in early ontogenesis significantly determines the growth and development of the animal in the future and ultimately the level of its productivity. The examination of 36 healthy piglets of milk nutrition showed a decrease in the content of peroxidation products in their blood as a result of increased activity of their antioxidant potential in plasma. This led to their weak platelet alteration, contributing to their optimal aggregation activity. In piglets during the phase of milk feeding, a gradual increase in the aggregation properties of platelets is noted, regulating blood flow in vessels of the smallest caliber.

**Keywords:** piglets, milk feeding phase, platelets, aggregation, lipid peroxidation, ontogenesis.

**PLANT GROWTH PROMOTING AND ANTIFUNGAL POTENTIAL OF *STREPTOMYCES MALACHITOSPINUS* ANSP4 AND *STREPTOMYCES ROCHEI* ANSCA22.**

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**ABSTRACT**

*Streptomyces malachitospinus* ANSP4 and *Streptomyces rochei* ANSCa22 isolated from rhizospheric soil of *Punica granatum* and *Capsicum annum* respectively, demonstrated plant growth promoting and antifungal potential. In pot study, after treatment of ANSP4 and ANSCa22 culture on *R. bataticola* infected Soybean seeds significant increase in the values of growth parameters such as average shoot height, plant dry weight, seed weight and pod number were noted as compared to control. Antifungal activity of both strains was determined by dual cultural method. ANSP4 demonstrated antifungal potential against soil borne plant Pathogens *R. bataticola* and *Fuzarium Oxyporum*, and ANSCa22 showed only against *R. Bataticola*. ANSP4 and ANSCa22 demonstrated good plant growth promoting and antifungal potential by Paper towel method. *R. bataticola* infected seeds were observed to increase SVI after treatment with *Streptomyces* ANSP4 (SVI 2014.88) and ANSCa22 (SVI 1928.64) than control (SVI 1515.88), only *R. bataticola* infected seeds (SVI 666.75), and *R. bataticola* infected and chemical fertilizer treated seeds (SVI 1146.52). Both strains were compatible with *Bradyrhizobium japonicum*, exhibited tolerance to CaCO<sub>3</sub>, CaSO<sub>4</sub> and NaCl up to 5% concentration and CaCl<sub>2</sub> up to 2.5% concentration. Both strains indicated varying degree of growth at 7 to 10 pH range. ANSP4 demonstrated chitinase, amylase, cellulase and gelatinase activity. ANSCa22 only showed amylase activity. Microscopic examination of *Streptomyces* ANSP4 and ANSCa22 revealed typical features of *Streptomyces*. Partial sequencing of rRNA gene identified ANSP4 and ANSCa22 as *S. malachitospinus* and *S. rochei* respectively.

**Keywords:** *Streptomyces*; PGPR; Antifungal potential; soil borne plant pathogen

**İÇME SULARINDA MÜHENDİSLİK NANOPARTİKÜLLERİNİN KONSANTRASYONLARI  
BAKIMINDAN İNCELENMESİ VE DEĞERLENDİRİLMESİ**  
*INVESTIGATION AND EVALUATION OF ENGINEERING NANOPARTICLES CONCENTRATIONS  
IN DRINKING WATER*

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**ÖZET**

Son yirmi yılda, nanoteknoloji alanındaki hızlı inovasyon ve ticarileşme nedeniyle artan sayıda üretilen mühendislik nanopartikülleri (MNP'leri) ticari ürünlere daha hızlı eklenmesi ve su arıtma işlemlerinde potansiyel kullanımları ile, bu malzemelerin nihayetinde rekreasyon ve içme sularımızda belirli bir seviyede bulunması ihtimalini artırmıştır. Bilim insanları, çevresel nanaopartiküllerin (NP'lerin) doğal ortamlarda kelimenin tam anlamıyla her yerde olduklarını göstermiştir. Okyanuslar, atmosfer ve yeraltı suları dâhil olmak üzere, dünyanın neredeyse tüm bileşenlerinde kararlı bir şekilde bulunurlar. Bununla birlikte, bu oluşumların en önemlisi, muhtemelen Dünya'nın "kritik bölgesi" olarak adlandırılan gezegenimizdedir. Gezegenimizin kritik bölgesi, en üst orman kanopisinden en derin yeraltı suyu akiferine kadar uzanır. Tatlı su, hava ve toprak da dahil olmak üzere en hayati kaynaklarımızın neredeyse tamamını sağlayan veya güçlü bir şekilde Dünya'yı oluşturan kısımdır. Çevresel NP'ler çok çeşitli formlarda, yeraltı suyu, göller ve nehirler dahil olmak üzere bu kaynakların hemen hemen hepsinde bulunur. Her ne kadar bu su kaynakları gezegenin toplam su kaynağının % 1'inden daha azını oluştursa da, en vazgeçilmez olanıdır, çünkü hızla genişleyen nüfus için içme suyu ve tarımsal kullanım için en kritik gereksinimdir. Nanoteknoloji ürünleri, kullanım, temizlik ve yok etme sırasında NP'leri evsel atık akışına salıverir ve bu da yüzey sularına NP'lerin bulaşmasına yol açar. MNP içeren ürünlerin daha fazla kullanımı ve imhasıyla yüzey sularında konsantrasyonların zamanla artması beklenmektedir. Yüzey sularında artan MNP konsantrasyonları nedeniyle, MNP'lerin nihai kaderini göz önünde bulundurmamak önemlidir. Su kolonuna asıldığında, NP'lerin suda yaşayan organizmaları etkilemesi muhtemeldir ve içme suyu arıtma tesisleri için kaynak su olarak kullanılan yüzey sularında bulunurlar. NP'lerin çevresel kader ve taşınımı büyük ölçüde NP çözünmesi ve tekli NP'lerin süspansiyondan kurtulmak için daha zor olan daha büyük agregatlar oluşturması ile ilgilidir. Ayrıca, NP agragasyon, nihai NP büyüklüğü ve doğal organik madde ile etkileşime girme (DOM), içme suyunun arıtılması sırasında NP uzaklaştırmanın etkinliğini etkileyecektir.

**Anahtar Kelimeler:** *Nanopartikül, İçme suyu, su arıtımı, yüzey suları.*

**ABSTRACT**

In the last two decades, an increasing number of engineering nanoparticles (MNPs) have been produced due to rapid innovation and commercialization in the field of nanotechnology. Thanks to the faster addition of these MNPs to commercial products and their potential use in water treatment processes, the possibility of these materials to be found at a certain level in our recreation and drinking water has increased. Scientists have identicate that environmental engineering nanoparticles (ENPs) are ubiquitous in natural environments. Nanoparticles are found in almost every part of the world, including oceans and atmospheric groundwater. However, probably the most substantial of these formations is on our planet, which is called the "critical region" of the Earth. The regions of our world where nanoparticles are found broaden from the highest forest cover to the deepest groundwater aquifer. Especially fresh water is our most important resource covering almost all parts of our world. Environmental MNPs are found in different forms in all these water sources, including groundwater, rivers, lakes, ponds, and rivers. Although this basic resource accounts for a very small fraction (1%) of the total water supply, it is the most inevitable. Because it is a vital need for fresh water and agricultural use for the rapidly growing population. Nanotechnology products release MNPs into the household waste stream during use, purification and disposal, resulting in the contamination of the NPs to surface waters. The amount of nanoparticles in surface waters are expected to increment over time with increased use and destruction of products include MNPs. Due to increasing the amount of nanoparticles in surface waters, it is significant to consider the final fate of MNPs. Aquatic organisms

can be affected by these MNPs when MNPs are introduced into waters. Also, NPs are found in surface water used as source water for drinking water treatment plants. The environmental carry of MNPs is substantially related to MNP dissolution and single MNPs forming larger aggregates that are more difficult to get rid of from suspension. Also, MNP aggregate, ultimate MNP size, and interplay with natural organic matter will affect the effectiveness of NP elimination during treatment of drinking water.

**Keywords:** *Nanoparticle, drinking water, water treatment, surface water*

**NANOPARTİKÜLLERİN İNSAN VE ÇEVRE ÜZERİNE SİTOTOKSİK VE GENOTOKSİK ETKİLERİ****CYTOTOXIC AND GENOTOXIC EFFECTS OF NANOPARTICLES ON HUMAN AND ENVIRONMENT****Doç. Dr. Yeşim DAĞLIOĞLU***Ordu Üniversitesi, Orcid Id: 0000-0001-8740-1162***Doç. Dr. Betül YILMAZ ÖZTÜRK***Eskişehir Osmangazi Üniversitesi Orcid Id: 0000-0002-1817-8240***ÖZET**

Nanoteknoloji ve nanobiyoteknolojinin hızlı ilerlemesi sonucu insan ve çevre üzerinde çeşitli nanopartiküller farklı konsantrasyonlarda ve sürelerde maruz kalmaktadır. Örneğin, günümüzde nanopartiküllerin, terapötikler, antimikrobiyal ajanlar, transfeksiyon vektörleri ve flüoresan etiketleri gibi birçok biyoygulamaları vardır. Fakat, bu maruz kalmaya bağlı olarak nanopartiküllerin halen sağlık üzerine potansiyel olumsuz etkileri henüz belirlenmemiştir. Bununla birlikte, nanopartiküllerin bu uygulamalarının gelecekte büyük oranda artması beklenmektedir. Yapılan çalışmalarda, hücrelerin içindeki nanopartiküllerin akibeti hala tam olarak bilinmemektedir ve bu nanopartiküllerin indüklediği metabolik ve immünolojik cevaplar ortaya konulmamıştır. Nanotoksikoloji bilimi ile bu nanopartiküllere maruz kalınması sonucu biyolojik birikimi, toksisitesi ve hücrel ve moleküler olayları çözümler. Şimdiye kadar mikroorganizmalarla yapılan birçok toksisite mekanizmalarının insanlarda da aktif olma söz konusu olabilir. Çünkü nanopartiküller, büyük yüzey alanı ve küçük nanopartikül boyutu ile *in vivo* aktiviteyi arttırması beklenir. Nanopartikül büyüklüğü, yüzey alanı ve yüzey işlevselliği, biyokinetiği ve toksisiteyi etkileyen ana faktörlerdendir. Birçok çalışmada, nanopartiküllerin toksisitesini belirlemek için özellikle canlılık ve reaktif oksijen türlerinin (ROS) tespiti ile yapılmaktadır. Böylece, az da olsa nanopartiküllerin toksisite dereceleri ve mekanizmaları hakkında fikir elde edilebilir. Canlılık analizleri ile nanopartiküllerin toksik hücrel cevabını açıklaması bakımından oldukça önemlidir. Ayrıca, hücre ölümü, hayatta kalma ve metabolik aktiviteler hakkında bilgi verir. Bunun yanısıra hücrelerin nanopartikül alım hızı, hücre içi dağılımı ve ekzositoz oranı olarak ölçülen nanopartiküllerin biyokinetiğinin toksisitelere büyük katkı sağladığı düşünülmektedir. Birçok çalışmada, nanopartikül konsantrasyonuna bağlı olarak sitotoksik değerlendirme için düşük metabolik aktivite, genotoksik değerlendirme için DNA hasarı, kromozomal sapmalar ve hücre döngüsü araştırılmaktadır. Ayrıca, hücrelerin nanopartiküllere maruz kalmasıyla hücrelerin morfolojideki değişimler göze çarpmaktadır.

**Anahtar Kelimeler:** *Genotoksisite, sitotoksisite, nanopartikül, hücre.*

**ABSTRACT**

As a result of the rapid progress of nanobiotechnology, various nanoparticles are exposed to different concentrations and durations on humans and the environment. For example, today nanoparticles have many bioapplications such as therapeutics, antimicrobial agents, transfection vectors, and fluorescent tags. However, the potential adverse health effects of nanoparticles due to this exposure have not yet been determined. However, these applications of nanoparticles are expected to increase greatly in the future. In the studies carried out, the fate of nanoparticles inside the cells is still not fully known. The science of nanotoxicology analyzes bioaccumulation, toxicity, and cellular and molecular events as a result of exposure to these nanoparticles. Until now, many toxicity mechanisms revealed by microorganisms may also be active in humans. Because nanoparticles are expected to increase *in vivo* activity with their large surface area and small nanoparticle size. Nanoparticle size, surface area and surface functionality are the main factors affecting biokinetics and toxicity. In many studies, determination of viability and reactive oxygen species (ROS) is performed to determine the toxicity of nanoparticles. Thus, some insight can be obtained about the toxicity levels and mechanisms of nanoparticles. It is very important in terms of explaining the toxic cellular response of nanoparticles with viability analysis. It also provides information on cell death, survival, and metabolic activities. In



addition, the biokinetics of nanoparticles, which are measured as nanoparticle uptake rate, intracellular distribution and exocytosis rate of cells, are thought to contribute greatly to their toxicity. In many studies, depending on the nanoparticle concentration, low metabolic activity for cytotoxic evaluation, DNA damage for genotoxic evaluation, chromosomal aberrations and cell cycle are investigated. In addition, the morphological changes of the cells with the exposure of the cells to the nanoparticles are noticeable.

**Keywords:** *Genotoxicity, cytotoxicity, nanoparticle, cell.*

İNDİKATÖR BÖCEK GRUPLARINDAN *NEPA* SPP. CİNSİ BÖCEK TÜRÜ BAĞIRSAK  
MİKROBİYOYATASINDA BAZI BAKTERİLERİN ALTTÜR DÜZEYİNDE TESPİT  
EDİLMESİ

AS INDICATOR INSECT GROUPS: DETERMINATION OF SUB-SPECIES OF SOME  
BACTERIA IN *NEPA* SPP. SPECIES' GUT MICROBIOTA

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**ABSTRACT**

Fresh water is an essential resource maintaining human life and other organisms in the environment to sustain the balance of nature. Aquatic communities are ideal indicators of environmental scale. In environment, each organism needs to deal with different environmental stressors which disturb their gut microbiota. Waterscorpions can tolerate pollution for a certain dimension. This investigation was aimed to reveal some bacteri subspecies that it was on biotechnological importance using gut structures of a water scorpion. Therefore, *Nepa* spp. is thought that an important model organism used in this ecological study the genus, is benign named waterscorpions, are heteropteran bugs of the family Nepidae. All nepids penetrate through the water surface for breathing. Although all species in this aquatic family are referred to as waterscorpions. Adults stage of *Nepa* spp. was collected from their natural habitat in Erzurum Wetlands (Erzurum, Turkey) and live individuals was brought to the laboratory. After surface were applicated to disinfection, digestive structure of the insect was separated by dissection in a sterile environment. It was placed on sterile tubes then it was sent for metagenomic analysis. The amount and purity of the isolated DNA was determined fluorometrically with Qubit. V3-V4 regions of the 16s rRNA gene to be used in species determination were amplified using the SimpliAmp Thermal Cycler with universal 341F- 805R primer sequences. The detected bacterial subspecies are as follows; *Salmonella enterica enterica*, *Pseudomonas syringae pisi*, *Cutibacterium acnes acnes*, *Xanthomonas oryzae oryzicola*, *Rhizobium leguminosarum trifolii*, *Bacillus thuringiensis kurstaki*, *Vibrio tapetis tapetis*, *Klebsiella pneumoniae pneumoniae*, *Pantoea stewartii stewartii*, *Pasteurella multocida septica*, *Propionibacterium phage P100*, *Staphylococcus aureus aureus*, *Ainckia indica indica*, *Lactobacillus buchneri silagei*, *Photobacterium damsela piscicida*, *Bacillus cereus anthracis*, *Clostridium estertheticum estertheticum*, *Mycoplasma capricolum capripneumoniae*, *Lactobacillus delbrueckii bulgaricus*, *Legionella pneumophila pneumophila*, *Bifidobacterium animalis lactis*, *Streptomyces peucetius caesius* and *Paenibacillus larvae larvae*. *Salmonella enterica enterica*, *Staphylococcus aureus aureus* and *Vibrio tapetis tapetis* subspecies were abundant identified. Despite of subspecies level, our results seem that positive impetus will be redounded in microbial ecology. It is believed that it is useful data which will be take advantage of bio-monitor and bacterial studiness.

**Keywords:** *Aquatic Insects, Bio-monitors, Fresh Water Ecosystem, Indicator Insects, Microbiota.*

**ÖZET**

Tatlı su, doğa dengesini sürdürmek için insan yaşamını ve çevrede bulunan diğer organizmaları sürdüren temel bir kaynaktır. Sucul komüniteler, çevresel ölçeğin ideal göstergeleridir. Çevrede, her organizmanın bağırsak mikrobiyotalarını bozan farklı çevresel stres faktörleriyle baş etmesi gerekir. Su akrepleri, belirli bir boyutta kirliliği tolere edebilirler. Bu araştırmada, bir su akrebinin bağırsak yapılarını kullanarak biyoteknolojik önemi olan bazı bakteri alt türlerini ortaya çıkarılması amaçlanmıştır. Bu ekolojik çalışmada kullanılan, önemli bir model organizma olduğu düşünülen ve su akrepleri olarak adlandırılan *Nepa* spp. cinsi Nepidae familyasının heteropteran böcekleridir. Böcek, Erzurum Sulak Alanlarında (Erzurum, Türkiye) doğal ortamından toplanmış ve canlı olarak laboratuvara getirilmiştir. Yüzey dezenfeksiyona tabi tutulduktan sonra böceğin sindirim yapısı steril bir ortamda diseksiyonla ayrılmıştır. Steril tüplere yerleştirilerek ve ardından metagenomik analize

gönderilmiştir. İzole edilen DNA'nın miktarı ve saflığı, Qubit ile florometrik olarak belirlendi. Tür tayininde kullanılacak 16s rRNA geninin V3-V4 bölgeleri, evrensel 341F- 805R primer dizileri ile SimpliAmp Thermal Cycler kullanılarak amplifiye edilmiştir. Tespit edilen bakteri alt türleri ise aşağıdaki gibidir; *Salmonella enterica enterica*, *Pseudomonas syringae pisi*, *Cutibacterium acnes acnes*, *Xanthomonas oryzae oryzicola*, *Rhizobium leguminosarum trifolii*, *Bacillus thuringiensis kurstaki*, *Vibrio tapetis tapetis*, *Klebsiella pneumoniae pneumoniae*, *Pantoea stewartica indica*, *Lactobacillus buchneri silagei*, *Photobacterium damsela piscicida*, *Bacillus cereus anthracis*, *Clostridium estertheticum estertheticum*, *Mycoplasma capricolum capripneumoniae*, *Lactobacillus delbrueckii bulgaricus*, *Legionella pneumophila pneumophila*, *Bifidobacterium animalis lactis*, *Streptomyces peucetius caesius* and *Paenibacillus larvae larvae*'dir. *Salmonella enterica enterica*, *Staphylococcus aureus aureus* ve *Vibrio tapetis tapetis* alt türleri bol miktarda tanımlanmıştır. Alt tür düzeyine rağmen, sonuçlarımız mikrobiyal ekolojide olumlu ivmenin kazandıracağı görülüyor. Bio-monitör ve bakteriyel çalışmalarda avantaj kazandıracak faydalı veriler olduğuna inanılmaktadır.

**Anahtar Kelimeler:** *Biyo-monitörleme, İndikatör Türler, Mikrobiyota, Sucul Böcekler, Tatlısu Ekosistemi.*

**DENİZ TARAĞI DİYETİ UYGULANMIŞ RATLARIN BÖBREK DOKUSUNDA NF-κB İMMÜNOREAKTİVİTESİ**  
THE NF-κB IMMUNOREACTIVITY IN KIDNEY TISSUE OF RATS FED WITH CLAM DIET

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**ABSTRACT**

Environmental pollution adversely affects aquatic ecosystems and causes long-term damage. Pollution walks along the food chain and harms all organisms, including human. In this study, we aimed to determine the histopathological changes that the mussels, which serve as important filters of the sea, cause in rat kidney tissue.

In the study, 24 female Wistar albino rats were used. First group (n: 6): fed standard rat food, second group (n: 6): every day with 4/5 clam; third group (n: 6): every other day with 4/5 clam; fourth group (n: 6): divided into groups with 4/5 clam to be given every three days. After histopathological follow-up, the kidney tissues taken from the subjects were stained immunohistochemically with NF-κB to determine the nephrotoxic effect and examined under a light microscope.

Intense mononuclear cell infiltration was observed in the kidney tissue of rats on the clam diet. It has been determined that NF-κB immunoreactivity increases due to the cells undergoing inflammation and apoptosis. Especially in rats given clam every day, the effect was observed to be quite high.

As a result, it has been shown that clams supplied under unhealthy conditions can cause chronic damage to the kidney tissue due to excessive consumption.

**Keywords:** Kidney, clam, immunohistochemistry, histopathology.

**ÖZET**

Denizleri olumsuz etkileyen faaliyetler sonucu meydana gelen kirlilik olayları kıyısız ve deniz ekosistemlerinde ani ve uzun dönemli hasarlara neden olmaktadır. Kirlilik etmenleri besin zinciri boyunca aktarılmakta ve insan dahil bütün canlılara zarar vermektedir. Bu çalışmada denizlerin önemli filtre işlevini gören deniz taraklarının sığan böbrek dokusu meydana getirdiği inflamasyona bağlı değişiklikler tespit edilmiştir.

Çalışmada Wistar albino cinsi 24 adet dişi sığan kullanıldı. Birinci grup (n:6): standart sığan yemi ile beslenen, ikinci grup (n:6): 4/5 deniz tarağı ile her gün; üçüncü grup (n:6): 4/5 deniz tarağı ile gün aşırı; dördüncü grup (n:6): 4/5 deniz tarağı ile her üç günde bir verilecek şekilde gruplara ayrıldı. Deneklerden alınan böbrek dokuları histopatolojik takip yapıldıktan sonra nefrotoksik etkinin belirlenmesi için immünohistokimyasal olarak NF-κB ile boyanarak ışık mikroskopunda incelendi.

Deniz tarağı diyeti uygulanan ratların böbrek dokusunda mononükleer hücre infiltrasyonu yoğun şekilde gözlenmiştir. NF-κB immünreaktivitesinin inflamasyona ve apoptoza giden hücrelere bağlı arttığı tespit edilmiştir. Özellikle her gün deniz tarağı verilen ratlarda etkinin oldukça fazla olduğu görülmüştür.

Sonuç olarak, sağlıksız koşullarda temin edilen deniz taraklarının fazla tüketimine bağlı böbrek dokusunda kronikleşebilecek hasarlar oluşturabileceği gösterilmiştir.

**Anahtar kelimeler:** Böbrek, deniz tarağı, immünohistokimya, histopatolojik.

**SUCUL EKOSİSTEMLERDEKİ TEHLİKE: MİKROPLASTİKLER**  
**THE MAJOR DANGER IN AQUATIC ECOSYSTEMS: MICROPLASTICS**

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**ABSTRACT**

Plastic has turned into a product with a production of 348 million tons in recent years with its cheapness, durability and lightness in its field of use. With the start of mass production of plastic in the 1950s, it constitutes a total production volume of 8.3 billion tons. Studies focusing especially on the problems in marine environments have also discovered another property of plastic, namely its shape that becomes smaller than 5 millimeters by breaking down and turned the direction of the research into this subject. These plastics, commonly called microplastics (MPs), are thought to constitute 92% of all plastic litter in the sea. MPs are not just formed from breaking down larger plastics. It can also be produced directly to add abrasives to some personal care products (toothpaste, facial cleansing gel, etc.) and some cleaning agents (surface abrasives, detergents, etc.). Such microplastics exceed wastewater treatment facilities and reach marine and freshwater ecosystems. This situation poses a great threat to aquatic ecosystems that contain thousands of organisms. The fact that a material that has entered our lives as a facilitator has become threatening to all life over time has caused the plastic issue to be investigated with increasing interest.

**Keywords:** *Ecosystem, Sea, Microplastics, Pollution.*

**ÖZET**

Plastik, kullanım alanındaki ucuzluğu, dayanıklılığı ve hafifliği ile son yıllarda 348 milyon ton üretime sahip bir ürün haline dönüştürmüştür. Plastikün kitlesel üretiminin 1950'lerde başlamasıyla toplamda 8.3 milyar tonluk bir üretim hacmini oluşturmaktadır. Özellikle denizel ortamlardaki problemlere odaklanan çalışmalar, plastikün bir başka özelliğini yani parçalanarak 5 milimetreden daha küçük hale gelen biçimini de keşfetmiş ve araştırmaların yönünün bu konuya çevirmiştir. Yaygın olarak mikroplastik (MPs) olarak isimlendirilen bu plastiklerin denizlerdeki tüm plastik çöplerin yüzde 92'lik bir kısmını oluşturduğu düşünülmektedir. MPs sadece daha büyük plastiklerin parçalanmasından oluşmamaktadır. Aynı zamanda bazı kişisel bakım ürünleri (diş macunu, yüz temizleme jeli, vb.) ve bazı temizlik maddelerinin (yüzey aşındırıcılar, deterjanlar, vb.) içerisine aşındırıcı olarak katılmak amacıyla, direkt olarak da üretilebilmektedir. Bu şekildeki mikroplastikler atık su arıtma tesislerini aşarak deniz ve tatlı su ekosistemlerine kadar ulaşmaktadır. Bu durum binlerce canlı türünü barındıran sucul ekosistemler için oldukça büyük bir tehdit sebebi oluşturmaktadır. Hayatımıza kolaylaştırıcı olarak giren bir malzemenin zaman içerisinde tüm canlılığı tehdit eder hale gelmesi, plastik konusunun artan bir ilgiyle araştırılmasına sebep olmuştur.

**Anahtar Kelimeler:** *Ekosistem, Deniz, Mikroplastik, Kirlilik.*

**MEDICAGO ORBICULARIS L. XAMMALININ ELEMENT TƏRKİBİ**  
**ELEMENT CONTENT OF MEDICAGO ORBICULARIS L.**

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**ABSTRACT**

**Introduction.** *Medicago* genus comprises a perennial herbaceous plants from the family *Lamiaceae* and consists of more than 100 species in the world and 21 species are found in the flora of Azerbaijan. Raw materials of various species of the genus *Medicago* L. contain flavonoids, saponins, phytoestrogens, coumarins, phytosterols, carbohydrates and amino acids. The purpose of the this study was to study the element content of the plant *Medicago orbicularis* L. from the flora of Azerbaijan.

**Material and methods.** To determine elements in *M. orbicularis* L. sample, ICP-MS/ICP-AES techniques were applied. Raw materials of *M. orbicularis* L. for research were collected in the Shamakhi region of the Republic of Azerbaijan in May 2019 in the flowering phase of the plant. Studied samples, weighing 1 g, were transferred to 100 mL flasks, then were added 10 mL HNO<sub>3</sub>(70%) and 3 to 4 glassboiling beads to flask. Sample was then cautiously heated on a hot plate. Following cooling, 10 mL HClO<sub>4</sub>(70%) was added to flask and the contents were gently heated on a hot plate until the solution became colorless. After cooling, 30 mL H<sub>2</sub>O was added to flask and then the solution was heated to and boiling for 10 min. When the solution was cooled to room temperature, the flask were brought to volume with H<sub>2</sub>O and the solution were mixed with a magnetic stirrer.

**Results.** An inductively coupled plasma mass spectrometry (ICP-MS) and inductively coupled plasma atomic emission spectrometry (ICP-AES) was evaluated to determine approximately 30 elements in *M. orbicularis* L. ICP-MS performed multielemental analysis with an excellent sensitivity and high sample throughput. ICP-MS/ICP-AES made it possible to determine microelements (Si, Al, Fe, Mn, Br, Ti, Cu, Zn, Sr, Ni, Ba, B, V, Rb, Zr, Mo, Cr, Pb, Co, Cd, Se, As, Hg) and macroelements (Ca, K, S, Na, P, Mg, Cl) with high precision. The results showed that the *M. orbicularis* L. sample contained many wholesome elements (Al, Ca, Co, Cr, Fe, Mg, Mn, Mo, Ni, P, Se and Zn) which are necessary to human health. Ca, Mg, K and P are the top elements in the sample. The results showed that the concentrations of heavy metals in *M. orbicularis* L. samples were low.

**Conclusion.** The study showed that approximately 30 elements are found in the raw material of *Medicago orbicularis* L. The proposed ICP-MS/ICP-AES has been proved to be a quick and sensitive method for the detection of various elements in the *M. orbicularis* L. from flora Azerbaijan. The obtained data allow further use of the studied plant material in a complex in the future.

**Keywords:** *M. orbicularis* L., element content, ICP-MS/ICP-AES, flora of Azerbaijan

**Xülasə**

**Giriş.** *Medicago* cinsi, *Lamiaceae* fəsiləsinə aid olan çoxillik ot bitkisidir və dünyada 100 dən çoxu növü, Azərbaycan florasında isə 21 növü məlumdur. *Medicago* L. cinsinə aid müxtəlif növlərin xammalları flavonoidlər, saponinlər, fitoestrogenlər, kumarinlər, fitosterollar, karbohidratlar və amin turşularla zəngindir. Bu tədqiqatın məqsədi Azərbaycan florasında olan *Medicago orbicularis* L. növünün element tərkibini tədqiq etməkdir.

**Material və metodlar.** *M. orbicularis* L. nümunəsinin element tərkibini müəyyən etmək üçün ICP-MS / ICP-AES üsulları tətbiq olunmuşdur. Tədqiqat məqsədilə istifadə olunan *M. orbicularis* L. növünün xammalı 2019-cu ilin may ayında Azərbaycan Respublikasının Şamaxı rayonu ərazisindən bitkinin çiçəkləmə fazasında tədarük edilmişdir.

Tədqiq ediləcək nümunə 1 qr olmaqla analitik tərəzidə çəkilir və həcmi 100 ml olan kolbaya keçirilir. Üzərinə 10 ml HNO<sub>3</sub> (70%) və 3-4 ədəd kiçik şüşə parçası əlavə edilir. Hazırlanmış nümunə ehtiyatlı şəkildə qızdırılır. Daha sonra soyudulmuş məhlulə 10 ml HClO<sub>4</sub> (70%) məhlulu əlavə edilir və rəngsizləşənə kimi qızdırılma prosesi davam etdirilir. Məhlul soyudulduqdan sonra üzərinə 30 ml təmizlənmiş su əlavə edilir və yenidən 10 dəqiqə müddətində qızdırılma davam etdirilir. Nəhayət, məhlul tamamilə soyudulur, otaq temperaturunda 100 ml həcmə çatana kimi üzərinə təmizlənmiş su əlavə edilir və maqnit qarışdırıcıda yaxşı qarışdırılır.

**Nəticələr.** *M. orbicularis* L. növündə təxminən 30-a yaxın element induktiv əlaqəli plazma kütlə-spektroskopiyası (ICP-MS) və induktiv əlaqəli plazma atom absorbsiya spektroskopiyası (ICP-AES) cihazları ilə öyrənilmişdir. ICP/MS və ICP/AES vasitəsilə ilə mikro ((Si, Al, Fe, Mn, Br, Ti, Cu, Zn, Sr, Ni, Ba, B, V, Rb, Zr, Mo, Cr, Pb, Co, Cd, Se, As, Hg) və makroelementlərin (Ca, K, S, Na, P, Mg, Cl) analizi yüksək həssaslıqla aparılmışdır. Nəticələr *M. orbicularis* L. növünün insan sağlamlığı üçün vacib olan bir çox faydalı elementlə (Al, Ca, Co, Cr, Fe, Mg, Mn, Mo, Ni, P, Se və Zn) zəngin olduğunu göstərmişdir. Ca, Mg, K və P elementləri nümunədə miqdarca üstünlük təşkil etmişdir. Həmçinin, *M. orbicularis* L. növündə ağır metalların konsentrasiyalarının çox aşağı olduğu müəyyən edilmişdir.

**Nəticə.** *M. orbicularis* L. xammalında 30-a qədər elementin olduğu müəyyən edilmişdir. İstifadə olunan ICP-MS / ICP-AES üsulları Azərbaycan florasında olan *M. orbicularis* L. növündə müxtəlif elementlərin müəyyən edilməsi üçün tez və həssas bir üsul olduğu təsdiqlənmişdir. Əldə edilən nəticələr öyrənilən bitki xammalının gələcəkdə kompleks şəkildə istifadə edilməsinə zəmin yaradır.

**Açar Sözlər:** *M. orbicularis* L., element tərkibi, ICP-MS / ICP-AES, Azərbaycan florası

**TÜRKÜLERDE KENT İMGELERİ: AMASYA ÖRNEĞİ**  
**URBAN IMAGES IN FOLK SONGS: AMASYA EXAMPLE****Doç. Dr. Cafer ÖZDEMİR***Ondokuz Mayıs Üniversitesi, ORCID: 0000-0002-5794-5828***Prof. Dr. Bekir ŞİŞMAN***Ondokuz Mayıs Üniversitesi, ORCID: 0000-0002-5252-9657***ÖZET**

Yerel kültür unsurları, bir sembol haline gelerek ait olduğu mekânın ve kültürün tanıtımında önemli işlevler üstlenir. Kent imgeleri adını verdiğimiz bu unsurlar, küreselleşen dünyada sahip olunan değerleri muhafaza etme açısından büyük önem taşımaktadır. Doğal, tarihî ve kültürel mirasa dayanan değerlerin farkındalığını artırmak, onları tanıtmak, geleceğe taşımak ve varlıkları etrafında kültürel unsurları yaşatarak kültür ekonomisi bağlamında değerlendirilmesini sağlamak kent imgeleri bağlamında düşünülmesi gereken hususlardır. Özgünlüklerin ve farklılıkların önem kazandığı 21. yüzyılda toplumsal belleğin yaşatılması, tanıtılması, görselleştirilmesi, sunulması, etkili ürünlere dönüştürülüp hem ekonomik hem de sosyo-kültürel hayatta canlandırılması ve aktifleştirilmesi gelecekte etkili sonuçların elde edilmesini sağlayacaktır. Bu bağlamda kent içinde yöre ayrımı yapmaksızın ortaya konulan ürünler önce yerelin, nihayetinde kentin bir imgesi olarak ortaya çıkacaktır. Kentlerin turizm potansiyeli içerisinde değerlendirilebilecek olan bu ürünlerin, çok yönlü bir kazanıma sahip olduğu açıktır.

Orta Karadeniz bölümünün önemli bir şehri olan Amasya tarihî geçmişi, doğal güzellikleri ve kültürel unsurlarıyla dikkat çeken bir yerleşim yeridir. Sahip olduğu zenginlikleri ile bünyesinde birçok kent imgesini barındırmaktadır. Bu imgeler Amasya'nın tanıtımı, yerel zenginliklerinin korunması ve kültürel belleğin gelecek kuşaklara aktarımında önemli rol oynamaktadır. Misket elması, kaya mezarları, semaver çayı, Yeşilirmak nehri, tarihî kalesi, konakları, camileri, Ferhat ile Şirin hikâyesi, şehzadeleri, Amasya Genelgesi, saat kulesi, şifalı suları, Borabay Gölü ve haşhaşlı çörek gibi birçok imgeye sahiptir. Türk insanının iç dünyasını en iyi biçimde yansıtan türküler, ait olduğu coğrafyaya ait pek çok kent imgesini de barındırmaktadır. Kent imgelerinin yaygınlaştırılması ve tanıtımında türkülerin gücünden faydalanmak ve onların etkileyici yönünden yararlanmak gerekir. Bu çalışmada Amasya türkülerinin hangi kent imgelerini barındırdığı ve bunların tanıtımında nasıl rol oynadığı üzerinde durulmuştur. Böylelikle kendisi de bir imge olabilecek somut olmayan bir kültür unsurunun kent imgeleri açısından önemi sorgulanmıştır. Sonuçta Amasya türkülerinin birçok kent imgesini bünyesinde bulundurduğu ve bunların yaygınlaşmasına katkı sağladığı görülmüştür.

**Anahtar kelimeler:** *Amasya, kent imgesi, türkü, kültürel bellek.*

**ABSTRACT**

Local cultural elements become a symbol and undertake important functions in the promotion of the place and culture they belong to. These elements, which we call city images, are of great importance in terms of preserving the values owned in the globalizing world. Increasing the awareness of the values based on natural, historical and cultural heritage, promoting them, carrying them to the future and ensuring that cultural elements are evaluated in the context of cultural economy by keeping them alive around their assets are issues that should be considered in the context of city images. In the 21st century, where authenticity and differences gain importance, keeping the social memory alive, promoting, visualizing, presenting it, transforming it into effective products and activating and activating it in both economic and socio-cultural life will ensure effective results in the future. In this context, the products produced in the city without making any distinction between regions will first emerge as an image of the local and finally the city. It is clear that these products, which can be evaluated within the tourism potential of cities, have a versatile benefit.

Amasya, an important city in the Middle Black Sea region, is a settlement that draws attention with its historical past, natural beauties and cultural elements. It contains many city images with its richness. These images play an important role in the promotion of Amasya, protection of local wealth and transfer of cultural memory to future generations. It has many images such as musket apple, rock tombs, samovar tea, Yeşilirmak river, historical castle, mansions, mosques, story of Ferhat and Şirin, princes, Amasya Circular, clock tower, healing waters, Lake Borabay and poppy straw. The folk songs



that reflect the inner world of the Turkish people in the best way contain many city images belonging to the geography to which they belong. It is necessary to make use of the power of folk songs in the dissemination and promotion of city images and to benefit from their impressive features. In this study, it has been focused on which city images Amasya folk songs contain and how they play a role in their promotion. Thus, the importance of an intangible cultural element, which itself can be an image, in terms of urban images has been questioned. As a result, it was seen that Amasya folk songs embody many city images and contributed to their spread.

**Keywords:** *Amasya, urban image, folk song, cultural memory.*

**KÜLTÜREL KORUMA BAĞLAMINDA BAFRA YÖRESİ HALK ŞENLİKLERİ**  
**BAFRA REGION FOLK FESTIVALS IN THE CONTEXT OF CULTURAL PROTECTION****Prof. Dr. Bekir ŞİŞMAN***Ondokuz Mayıs Üniversitesi, ORCID: 0000-0002-5252-9657***Doç. Dr. Cafer ÖZDEMİR***Ondokuz Mayıs Üniversitesi, ORCID: 0000-0002-5794-5828***ÖZET**

Türkiye’de tanıtım ve turizm amaçlı olarak hemen hemen her ilde ve ilçede çeşitli kültürel etkinlikler, şenlikler, panayırılar ve festivaller düzenlenmektedir. Topluma veya yöreye mal olmuş bir değeri, geleneği, kişiyi ya da tarihi bir olayı anmak amacıyla yılın belirli günlerinde yapılan, halkın yoğun biçimde iştirak ederek önemli rol oynadığı geleneksel etkinliklere şenlik adı verilmektedir. Şenliklerde halk hem icracı hem de izleyici olarak ön plandadır. Bu nedenle şenlikler; halkın kendisini daha iyi ifade ettiği, daha iyi hissettiği, birbiriyle kaynaşıp dertleştiği, birlik ve beraberliğin sergilendiği geniş halk kutlamalarıdır. Şenliklerin tarihi arka planında toy, şölen, düğün gibi toplumsal törenler bulunmaktadır.

Yöresel şenlikler; bir topluluğun veya yörenin tarihinin, sosyal yapısının, üretim tarzının, ürünlerinin, oyunlarının, tarihi şahsiyetlerinin, kültürel değerlerinin ve turistik mekânlarının diğer topluluklar tarafından tanınmasını sağlamak ve aynı zamanda da bu değerleri sonraki kuşaklara aktarmak gibi işlevlere sahiptir. Böylelikle kültürel korumada uygulamanın, canlı tutmanın önem kazandığı günümüz folklor anlayışına göre de yöresel şenlikler artık daha çok işlevseldir. Günümüzde yüklendiği toplumsal değerler ile geleneksel bir hale gelen şenlikler, aynı zamanda önemli kültürel, sosyal, sanatsal ve eğitimsel işlevlere sahiptir. Çeşitli kültürel etkinliklerin gerçekleştirilmesi, ulaşım-konaklama, yiyecek-içecek, kıyafet ve hediyeleşme eşya pazarı gibi birçok faktörün bir araya gelmesi bu şenliklere ekonomik bir boyut da kazandırmaktadır.

Bu çalışmada, Bafra Yöresinde icra edilen mevsimlik kutlamalardan Kavun-Karpuz Şenliği, Hidrellez Şenliği, Sele Sepet-Top Kandil Şenliği ve yakın bir zamanda icra edilmeye başlanılan Öğrenme Şenliği gibi toplumsal uygulamalar incelenmiştir. Bu şenliklerin tarihi, hazırlık safhası, icra ortamı, şehre kazandırdıkları, sosyal, kültürel ve ekonomik işlevleri gibi özellikler ele alınmış ve esas itibarıyla bu şenliklerin kültürel değerlerin korunmasına ciddi anlamda katkı sağladıkları tespit edilmiştir.

**Anahtar Kelimeler:** *Şenlik, işlev, kültürel koruma, Bafra*

**ABSTRACT**

Various cultural events, festivals, fairs, and carnival are organized in almost every province and district of Turkey for publicity and tourism. Festivals are traditional events that are held on certain days of the year to commemorate a value, tradition, person, or historical event belonging to the society or the region, where the folk participates and plays an important role. The folk is at the forefront both as the performer and the audience at the festivals. Therefore, the festivals are extensive folk celebrations that the folk express themselves better, feel better, socialize and pour out one's grief to each other, and display unity and solidarity. There are social ceremonies such as festivity, feast, and weddings in the historical background of the festivals.

Local festivals have the functions of ensuring that the history, social structure, production style, products, dances, historical personalities, cultural values, and touristic places of a society or region are recognized by other communities at the same time transferring these values to the next generations. Thus, local festivals are now more functional according to contemporary folklore understanding where perform and keeping alive is important. Festivals, which have become traditional with the social values they are the owner of nowadays, also have important cultural, social, artistic, and educational functions. Realization of various cultural events and the combination of many factors such as transportation-accommodation, food-beverage, clothing, souvenir market adds an economic dimension to these festivals.

In this study, social practices such as "Melon-Watermelon Festival, Hidrellez Festival, Sele Sepet-Top Kandil Festival and the Knowledge Festival which has recently started" in Bafra district were examined. Features such as the history, the preparation phase, the performance environment, what they

bring to the city, the social, cultural, and economic functions of these festivals have been evaluated and it has been determined that these festivals contribute significantly to the preservation of cultural values.

**Keywords:** *Festival, function, cultural protection, Bafra*

AUTHOR'S CONCEPT FOR INNOVATIVE FINE PAINTING TECHNIQUE

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**ABSTRACT**

This report acquaints with innovative painting techniques, with the stages and changes it undergoes during its practical implementation. The object of consideration is the painting process itself - from the preparation of the base to the completion of the work. Specific pictorial techniques are traced and distinguished; specific materials used are characterized. The name of the technique is interpreted as a carrier of the meaning and authenticity of the concepts contained in it. Artistic-aesthetic, philosophical and interactive aspects related to the subject are explained.

**Keywords:** *painting, canvas, textile, technique, technique, selective, primer, frame, painting, concept, image, transcription, chromatic, images, figures*



**PIYANO EĞİTİMİNDE TUTUM ÖLÇEĞİ GELİŞTİRME ÇALIŞMALARININ ÖLÇEK  
YAPILARI AÇISINDAN İNCELENMESİ**  
INVESTIGATION OF ATTITUDE SCALE DEVELOPMENT STUDIES IN PIANO EDUCATION  
IN TERMS OF SCALE STRUCTURES

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**ÖZET**

Piyano eğitimi, müzik öğretmenliği programlarında önemli bir yere sahiptir. Piyano çalgısının hem solo, hem de eşlik çalgısı olmak gibi özellikleri sayesinde geniş bir etki alanı vardır. Bu durum özellikle müzik öğretmenliği programlarında piyanonun hem temel çalgı olarak tercih edilmesi, hem de pek çok müzik dersinde yardımcı çalgı olarak kullanılmasını sağlamaktadır. Dolayısıyla müzik öğretmenliği programında bu denli etkin bir yere sahip piyanonun eğitimi sürecinde tutum kavramı öne çıkmaktadır. Piyano dersi alan öğrencilerin derse yönelik tutumları, başarıları üzerinde de önemli etkilere sahiptir. Bu kapsamda yapılan çalışmada piyano eğitimi sürecinde yerli literatürde geliştirilmiş ve kullanıma sunulmuş tutum ölçekleri araştırılmıştır. Piyano dersine yönelik, piyano eğitime yönelik, piyanoda tutum gibi isimlerle literatüre kazandırılmış ölçekler incelemeye alınmıştır. İnceleme kapsamında Bakıoğlu (2012), Tufan ve Güdek (2008) ve Soycan ve Birer (2018) tarafından geliştirilmiş üç farklı ölçeğe rastlanmıştır. Ölçeklerden Bakıoğlu (2012), ile Soycan ve Birer (2018) tarafından geliştirilmiş olan ölçekleri üç alt başlık ile değerlendirildiği görülmüştür. Diğer yandan Tufan ve Güdek (2008) geliştirdikleri ölçeği iki alt başlıkta değerlendirmişlerdir. Ölçeklerdeki madde sayısı açısından bakıldığında ise Bakıoğlu (2012) çalışmasında 39 maddenin yer aldığı, Tufan ve Güdek (2008) çalışmasında ise 30 maddenin yer aldığı gözlenmiştir. Bu iki ölçek faktör yapıları ve madde sayıları açısından benzerlik göstermişlerdir. Soycan ve Birer (2018) çalışması ise 17 madde ile en az madde sayısına sahip ölçek olarak karşımıza çıkmaktadır. İncelenen tutum ölçekleri için uygulanan istatistiksel yöntemlerin ne olduğu, madde yapıları ve piyano eğitimi sürecinde tutum kavramını hangi alt başlıklar ve hangi maddeler ile irdelemeye çalıştıkları da incelenmiştir. Ölçeklerde cevaplama için piyano dersi alan öğrencilere sorulan soruların yapıları, genel olarak hangi önermeleri içerdikleri gibi hususlar da incelenmiştir. Yapılan inceleme sonucunda temel olarak bazı istatistik işlemlerin her çalışmada benzer olduğu, iki çalışmada ilaveten bazı istatistik yordamalarında önemli görüldüğü anlaşılmıştır. Genel madde önermeleri açısından da benzerlik taşıyan ölçeklerde en güçlü faktörel yapının Bakıoğlu (2012) çalışmasında olduğu da anlaşılmıştır.

**Anahtar Kelimeler:** *Piyano eğitimi, tutum, ölçek, inceleme.*

**ABSTRACT**

Piano education has an important place in music teaching programs. The piano instrument has a wide range of effects thanks to its characteristics such as being both a solo and accompaniment instrument. This situation enables the piano to be preferred both as a basic instrument in music teaching programs and to be used as an auxiliary instrument in many music lessons. Therefore, the concept of attitude comes to the fore in the education process of the piano, which has such an effective place in the music teaching program. The attitudes of students who take piano lessons towards the lesson also have important effects on their success. In this study, attitude scales developed and put into use in the local literature during the piano education process were investigated. Scales for the piano lesson, for piano education, and attitude in the piano, which were introduced into the literature, were examined. Within the scope of the analysis, three different scales developed by Bakıoğlu (2012), Tufan and Güdek (2008) and Soycan and Birer (2018) were found. The scales developed by Bakıoğlu (2012), and Soycan and Birer (2018) were evaluated under three subtitles. On the other hand, Tufan and Güdek (2008) evaluated the scale they developed under two subtitles. In terms of the number of items in the scales, it was observed that there were 39 items in Bakıoğlu (2012) study and 30 items in Tufan and Güdek (2008) study. These two scales showed similarity in terms of factor structures and item numbers. Soycan and Birer (2018) study appears as the scale with the least number of items with 17 items. The statistical methods applied for the analyzed attitude scales, item structures and with which sub-headings and items they tried to examine the concept of attitude in the piano education process

were also examined. The structures of the questions asked to students who took piano lessons to answer in scales, and which propositions they generally contain were also examined. As a result of the examination, it was understood that some statistical operations were basically similar in each study, and they were found important in some statistical predictions in addition to the two studies. It was also understood that the strongest factorial structure of the scales with similarities in terms of general item propositions was found in Bakıođlu (2012) study.

**Keywords:** *Piano education, attitude, scale, analysis.*

**MÜZİK ÖĞRETMENLERİNİN PİYANO İLE EŞLİK KAVRAMINA İLİŞKİN  
GÖRÜŞLERİNİN ÇEŞİTLİ DEĞİŞKENLER AÇISINDAN İNCELENMESİ**  
EXAMINING THE VIEWS OF MUSIC TEACHERS ON THE CONCEPT OF ACCOMPANIMENT  
WITH PIANO IN TERMS OF VARIOUS VARIABLES

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**ÖZET**

Müzik öğretimi sürecinde aktif bir öğretim yapmak ve bu öğretimi çeşitli araçlar ile pekiştirmek önemlidir. Bu süreçte ders yapılan tüm ortamlarda (özel bir müzik dersliği ya da klasik sınıf ortamı) en etkili araçlar çalgılardır. Çalgılar içerisinde diğer tüm çalgılardan ayrılan piyano, müzik öğretimi sürecinin de vazgeçilmez bir parçasıdır. Piyanonun müzik derslerinde kimi zaman konu anlatımında solo bir çalgı olması, kimi zaman ise etkinlik hazırlarken bir eşlik çalgısı konumunda olması oldukça önemlidir. Piyano eğitimi müzik öğretmenliği programlarının da vazgeçilmez bir parçasıdır. Bu bakış açısıyla yapılan çalışmada, müzik derslerinde piyano ile eşlik yapmanın önemi ve gerekliliği, müzik öğretmenlerinin görüşleri doğrultusunda incelenmiştir. Çalışmada Kurtuldu (2016) tarafından geliştirilmiş olan “piyano ile eşliğin önemi ve gerekliliğine yönelik ölçek” kullanılmıştır. Ölçek hem sınıf ortamında, hem etkinlik hazırlıklarında, hem de kişisel olarak öğretmenlerin gelişimi düzeyinde maddeler içermektedir. Ölçek Türkiye genelinde ortaokul ve liselerde görev yapan ve random usulle seçilmiş çalışma grubuna uygulanmıştır. Ölçek maddeleri öncesinde müzik öğretmenlerine görev yaptıkları okul türü ve müzik öğretmenliği programı öncesinde mezun olduğu lise türü sorulmuştur. Bu iki değişken elde edilen verilerin karşılaştırılmasında kullanılmıştır. Uygulama sonrasında elde edilen verilere çeşitli istatistik işlemler uygulanmış ve sonuçlar elde edilmiştir. Elde edilen veriler ilk olarak normal dağılım varsayımı açısından incelenmiş ve veriler normal dağılım varsayımını karşılamadığı için parametrik olmayan testler tercih edilmiştir. Görev yapılan okul türü ve mezun olunan lise değişkenleri için Mann Whitney U testi kullanılmış, ölçüm değerlendirmelerinde anlamlı fark kabul sınırı  $p < .05$  olarak kabulü edilmiştir. Elde edilen sonuçlara göre müzik öğretmenlerinin büyük bir bölümü, müzik öğretimi sürecinde piyano ile eşliğin son derece önemli ve gerekli olduğu sonucunda birleşmişlerdir. Değişkenlere göre yapılan ölçümlerde ise lise değişkenine yönelik fark oluşmazken, ortaokulda görev yapan öğretmenler yönünde fark bulunmuştur.

**Anahtar Kelimeler:** *Piyano eşlik, önem, gereklilik, müzik öğretmeni.*

**ABSTRACT**

In the process of teaching music, it is important to make an active teaching and to reinforce this teaching with various tools. In this process, the most effective tools in all the environments (a private music classroom or classical classroom environment) are instruments. Differentiating from all other instruments among instruments, the piano is also an indispensable part of the music teaching process. It is very important that the piano is sometimes a solo instrument in lectures in music lessons, and sometimes as an accompaniment instrument while preparing an activity. Piano education is also an indispensable part of music teaching programs. In this study, the importance and necessity of accompaniment with piano in music lessons was examined in line with the opinions of music teachers. The "scale for the importance and necessity of accompaniment with piano" developed by Kurtuldu (2016) was used in the study. The scale includes items both in the classroom environment, in activity preparations, and at the level of teachers' development personally. Turkey working in middle and high schools across the scale and random method has been applied to selected working groups. Before the scale items, the music teachers were asked about the type of school they worked in and the type of high school they graduated from before the music teaching program. These two variables were used to compare the obtained data. Various statistical processes were applied to the data obtained after the application and the results were obtained. The obtained data were first examined in terms of the normal distribution assumption and nonparametric tests were preferred because the data did not meet the normal distribution assumption. Mann Whitney U test was used for variables of school type and high school graduated from, and significant difference acceptance limit was accepted as  $p < .05$  in

measurement evaluations. According to the results obtained, most of the music teachers came together as a result that accompaniment with the piano is extremely important and necessary in the music teaching process. In the measurements made according to the variables, while there was no difference for the high school variable, there was a difference in the direction of the teachers working in the middle school.

**Keywords:** *Piano accompaniment, importance, necessity, music teacher.*



**VASFİ MAHİR KOCATÜRK'ÜN “ÖĞRETMENLİĞİN RUHU” ADLI ESERİ ÜZERİNE  
BAZI DİKKATLER**  
SOME ATTENTIONS ON VASFİ MAHİR KOCATÜRK'S WORK TITLED "ÖĞRETMENLİĞİN  
RUHU"

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**ÖZET**

Vasfi Mahir Kocatürk (1907-1961) Yedi Meşaleciler grubu içinde yer almış şair, araştırmacı ve çevirmendir. Cumhuriyet döneminin birçok yazar ve şairi gibi o da Türkiye'nin birçok ilinde Milli Eğitime bağlı okullarda öğretmenlik ve idarecilik yapar. Bu çalışmada 1934 yılında yazılan ancak 1965 yılında yayınlanan “Öğretmenliğin Ruhu” adlı eseri bağlamında Kocatürk'ün öğretmenlik yönü aydınlatılmaya çalışılmıştır. Öncelikle Kocatürk, öğretmenin verdiği derse dair bilgisinin yeterli olması gerektiğini vurgular. Anlattığı konuya vakıf olmayan öğretmenler ise bu açıklarını sınıf disiplininden taviz vermek, öğrencilerine not vermede eli açıklık göstermek, konuyu kendi şahsi tecrübelerine dayandırarak anlatmak, öğrenciyi not ile korkutmak suretiyle kapatırlar.

Kocatürk, öğretmenlere, ders sırasında konudan uzaklaşmamalarını ve öğrencileri sıkılmalarını öğütler. Önemli olan öğrencinin birçok sorusuna cevap vermek ve onu araştırmaya yönlendirebilmektir. O, öğretmenin Türkçeye vakıf olması gerektiğini vurgular. Öğretmenin ifade ettiği cümleler, öğrencilerin anlatılan konuyu en kuvvetli yönleriyle, en kısa yoldan ve kolaylıkla öğrenmesini sağlamalıdır. Kocatürk, sınıf düzeninin önemi üstünde durur. Ona göre sınıfta disiplin zafiyetleri, öğretmenin konuyla ilgi bilgisizliği kadar yönlemsiz olmasıyla ilgilidir. O, öğretmenlerin öğrencilerine yönelik sözlü ve fiziki şiddetini onaylamaz.

Kocatürk, öğretmenlerin öğrencilerin sınıf düzenini bozacak davranışlarına karşı uyanık olmasını tavsiye eder. Öğretmenler, öğrencilerinin saygısını tam manasıyla kazanmak için özel hayatlarında titiz davranmalıdır. Kocatürk, öğretmenlerin öğrencilerin derste dikkatini dağıtacak tarzda giyinmemesini de önemser. O, çok şık giyinmenin de düşük giyinmenin de öğrenciyi olumsuz etkileyeceği kanaatinde. Kocatürk, öğretmenlerin konularını öğrencilerine resmiyet ve ciddiyet içinde sezdirmelerini önemser. Kocatürk'ün üzerinde durduğu bir nokta da öğretmenlerin öğrencilere soru sorma imkânı tanımasıdır. Bunun yanında dersin tamamının öğrencilerin sorularıyla şekillenmesinin mahzuruna değinir.

Kocatürk'e göre öğretmen dersinde somut örneklerle işe başlamalı, öğrencilerini derste aktif hale getirmelidir. O, dersinde konuyla ilgili her şeyi anlatan değil, öğrencilerinde dersten sonra konuyu araştırma isteği uyandıran öğretmeni över. Kocatürk, okullardaki bütün derslerin tek amacının düşünen insan yetiştirmek olduğunun altını çizer. O, öğretmenin günlük siyasi olaylara dair düşüncelerini sınıfa taşımamasını uygun görmez; ancak öğretmenin milletin var olma ülküsüne uygun hareket etmesini vurgular. Kocatürk, öğretmenlerin diğer insanların sınıfta kendilerini sabırla ve saygıyla dinleyen öğrenciler gibi davranmasını beklememesini öğütler. Son olarak Kocatürk Türk öğrencilerinin zeki, çalışkan, itaatkâr ve ezberciliğe meyilli olduğunu belirtir. Elde edilen bulgular neticesinde şair yönüyle ön plana çıkan Vasfi Mahir Kocatürk'ün eğitime dair günümüzde dahi geçerliliğini sürdüren düşüncelere vakıf olduğu anlaşılır.

**Anahtar Kelimeler:** *Vasfi Mahir Kocatürk, Öğretmenliğin Ruhu, Eğitim*

**ABSTRACT**

Vasfi Mahir Kocatürk (1907-1961) is a poet, researcher and translator who was a member of the Yedi Meşaleciler. Like many writers and poets of the Republic era, he worked as a teacher and principal in several cities of Turkey. In this study, Kocatürk's teacher side was tried to be enlightened within the context of his work named "Öğretmenliğin Ruhu" written in 1934 but published in 1965. First, Kocatürk emphasizes that the teacher's knowledge about his/her course should be sufficient. Teachers who are not familiar with the subject they are telling, on the other hand, cover these deficits by making concessions from classroom discipline, showing generosity to their students in giving grades,

explaining the subject based on their own personal experiences and frightening the students with grades.

Kocatürk advises the teachers not to stay away from the subject during the lesson and not to bore the students. The important thing is to answer the student's many questions and direct them to research. He emphasizes that the teacher must have a command of Turkish. The sentences expressed by the teacher should ensure that the students learn the subject in the shortest way and easily with its strongest aspects. Kocatürk emphasizes the importance of classroom order. According to him, disciplinary weaknesses in the classroom are related to the lack of methodology of the teacher as well as his/her ignorance about the subject. He disapproves of teachers' verbal and physical violence against their students.

Kocatürk recommends that teachers must be alert to students' behavior that will disturb the classroom order. Teachers must be meticulous in their private lives to gain the full respect of their students. Kocatürk also cares that teachers do not dress in a way that will distract students during class. He thinks that either dressing too stylishly or casually will affect students negatively. Kocatürk emphasizes that teachers make their students understand their position with formality and seriousness. Another point Kocatürk emphasizes is that teachers give students the opportunity to ask questions. In addition, he points out the drawback of the whole lesson being shaped by students' questions. According to Kocatürk, the teacher should start with concrete examples and activate his/her students in the lesson. He praises the teacher who does not explain everything about the subject in his/her lesson, but makes his/her students want to research the subject after the lesson.

Kocatürk underlines that the only goal of all lessons in schools is to raise thinking people. He does not find it appropriate for the teacher to bring his/her thoughts on daily political events into the classroom. However, he emphasizes that the teacher should act in accordance with the nation's ideal. Kocatürk advises teachers not to expect other people to behave like students who will patiently and respectfully listen to them in the classroom. Finally, Kocatürk states that Turkish students are intelligent, hardworking, obedient and prone to rote learning. As a result of the findings, it was understood that Vasfi Mahir Kocatürk, who came to the forefront with his poet side, was familiar with the ideas about education that are valid even today.

**Keywords:** *Vasfi Mahir Kocatürk, Öğretmenliğin Ruhu, Education*

**KADIN VE EĞİTİM İLİŞKİN LİSANSÜSTÜ TEZLERİN YAPISAL İNCELENMESİ**  
**STRUCTURAL REVIEW OF THESES ON WOMEN AND EDUCATION****Duygu GÜR ERDOĞAN***Sakarya University, <https://orcid.org/0000-0002-2802-0201>***Başak TAŞDAN***Sakarya University, <https://orcid.org/0000-0003-4723-8502>***ABSTRACT**

For women to have a voice in society, education is essential. Educating the woman is educating the family the child. Family consciousness means educating the community. Studies on women's education have been screened from 1972 to the present day. The research patterned the scanning model. Document analysis was used in data analysis. All theses published on the website of the Higher Education Institution (YÖK) on women and education form the universe of the study. Within the scope of the research, female education was sought and a total of 33 theses were reached. These dissertations were filtered through 5 and were not allowed to be published through the thesis's database, and 3 thesis was extracted because it was English, and the remaining 25 thesis was included in the study, creating a sample of the research. There were 23 postgraduate theses and 2 doctoral theses. The data obtained in the study collected seven subheads. The published institute provides information on the identity and content of the study belonging to research in the form of its sample, publication year, publication type, method, data collection tools and keywords. Women's deprivation of education is a bleeding wound of our society despite international studies, as the literature shows. Education is important in preventing physical, emotional, sexual, economic abuse. The most widely used data collection tool for which qualitative methods, status studies are weighted has been identified in women's studies.

**Keywords:** *Woman, , Education Graduate, Thesis, Document Analysis*

**ÖZET**

Kadının toplumda söz sahibi olabilmesi için eğitim alması şarttır. Kadını eğitmek, aileyi çocuğu eğitmektir. Ailenin bilinçli olması, toplumu eğitmek demektir. Kadın eğitimi ilgili yapılmış olan çalışmaların 1972'den günümüze kadar olan çalışmalar taranmıştır. Araştırma tarama modeli desenlemiştir. Veri analizinde doküman analizi kullanılmıştır. Çalışmanın evrenini kadın ve eğitim konusunda Yüksek Öğretim Kurumu (YÖK)'ün internet sitesinde yayınlanmış tüm tezler oluşturmaktadır. Araştırma kapsamında tez başlığında kadın eğitim aranmış ve toplam 33 teze ulaşılmıştır. Bu tezlerden içinden filtreleme yapılmış olup 5 tezin veri tabanı üzerinden yayınlanma izni verilmemiş ve 3 tezin İngilizce olması sebebiyle çıkarılıp geriye kalan 25 tez araştırmaya dahil edilmiş ve araştırmanın örneklemini oluşturmuştur. 23 yüksek lisans tezi, 2 doktora tezi oluşmuştur. Araştırmada elde edilen veriler yedi alt başlık toplanmıştır. Yayınlanan enstitü, örnekleme, yayın yılı, yayın türü, yöntemi, veri toplama araçları ve anahtar kelimeleri şeklinde araştırmaya ait çalışmanın kimliği ve içeriği ile ilgili bilgi vermektedir. Literatürde görüldüğü üzere uluslararası çalışmalar olmasına rağmen kadınların eğitimden yoksun bırakılması toplumumuzun kanayan bir yarasıdır. Fiziksel, duygusal, cinsel, ekonomik istismarı önlemede eğitim önem teşkil eder. Kadın çalışmalarında nitel yöntemlerin, durum çalışmalarının ağırlıklı kullanıldığı en fazla kullanılan veri toplama aracı doküman saptanmıştır.

**Anahtar Kelimeler:** *Kadın, Eğitim, Lisansüstü, Tez, Doküman Analizi*

**TÜRK DİL KURUMU SÖZLÜKLERİNDE KADIN**  
**WOMEN IN THE TURKISH LANGUAGE INSTITUTION DICTIONARY**

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**ABSTRACT**

This qualitative research, which aims to examine the concept of woman in the dictionaries of the Turkish Language Association, was patterned in a survey model and the data were obtained by document analysis technique. The universe of the study consists of the definitions of women published in the dictionaries of the official website of the Turkish Language Association, compound words containing 'woman' and proverbs and idioms with 'women' in them, and the definitions of the concept of girl, which is often used instead of woman, and compound words with 'girl' in it. Proverbs and idioms with 'girl' in it were also included in the study. The definitions of women and girls in the dictionary have been examined, the compound words containing 'woman' and 'girl' are professions that provide special services to women, compound words in which women are associated with plants, vegetables, fruits, foods and animals, compound words degrading women, compound words that associate women with age, and Proverbs and idioms that ignore the financial contribution of women, proverbs and idioms that ignore the financial contribution of women, proverbs and idioms that have been examined under six sub-headings, including 'woman', and other compound words containing 'woman'. proverbs and idioms about the woman's desires too much, and other proverbs and idioms with 'women' in it. As a result of the research, it was found that the concepts about women in the dictionaries on the official website of the Turkish Language Association generally imprison women in negative descriptions and metaphors. In order for the woman to get rid of these stereotypes in which she is imprisoned, efforts should be made to change the language. There is a strong link between the change of human mentality and the change of language, and language must be cleansed of discourses that humiliate and belittle women in order to eliminate the distinction between men and women. The strongest structure that will lead the way in realizing this in our society is the Turkish Language Association.

**Keywords:** *Woman, Turkish Language Association, Language, Proverbs and idioms, Document review.*

**ÖZET**

Türk Dil Kurumu sözlüklerinde kadın kavramının incelenmesinin hedeflendiği bu nitel araştırma, tarama modelinde desenlenmiş olup veriler doküman analizi tekniği ile elde edilmiştir. Araştırmanın evrenini Türk Dil Kurumu'nun resmi internet sitesindeki sözlüklerinde yayımlanmış olan kadın tanımları, içinde 'kadın' geçen birleşik kelimeler ve içinde 'kadın' geçen atasözleri ve deyimler oluşturmaktadır ve sıklıkla kadın yerine kullanılan kız kavramının tanımları, içinde 'kız' geçen birleşik kelimeler ve içinde 'kız' geçen atasözleri ve deyimler de çalışmaya dahil edilmiştir. Kadın ve kızın sözlükteki tanımları incelenmiş, içinde 'kadın' ve 'kız' geçen birleşik kelimeler kadına özel hizmet veren meslekler, kadının bitki, sebze, meyve, yemekler ve hayvanlarla ilişkilendirildiği birleşik kelimeler, kadını aşağılayıcı birleşik kelimeler, kadını yaşı ile ilişkilendiren birleşik kelimeler ve içinde 'kadın' geçen diğer birleşik kelimeler olmak üzere altı alt başlıkta incelenmiş ve içinde 'kadın' ve 'kız' geçen atasözleri ve deyimler ise kadının maddi katkısını yok sayan atasözleri ve deyimler, kadının istenip, alınıp, verilmesi ve evlenmesi ile ilgili atasözleri ve deyimler, kadının isteklerinin çok fazla olduğu ile ilgili atasözleri ve deyimler ve içerisinde 'kadın' geçen diğer atasözleri ve deyimler olmak üzere dört alt başlıkta incelenmiştir. Araştırma sonucunda, Türk Dil Kurumu'nun resmi internet sitesindeki sözlüklerde yer alan kadına yönelik kavramların, genel olarak kadını olumsuz betimlemeler ve benzetmeler içerisine hapsediğine ulaşılmıştır. Kadının hapsedilmiş olduğu bu kalıp yargılardan kurtulabilmesi için dilin değiştirilmesine yönelik çalışmalar yapılmalıdır. İnsan zihniyetinin değişmesi ile dilin değişmesi arasında güçlü bir bağ vardır ve kadın erkek ayrımının ortadan kaldırılması için dilin, kadını aşağılayan ve küçük gören söylemlerden arındırılması gerekmektedir. Toplumumuzda bunun gerçekleştirilmesinde öncülük edecek en güçlü yapı ise Türk Dil Kurumu'dur.

**Anahtar Kelimeler:** *Kadın, Türk Dil Kurumu, Dil, Atasözleri ve deyimler, Doküman analizi.*  
**TÜRKÇE EĞİTİMİ ALANINDA DİNLEME TÜRLERİNE GENEL BİR BAKIŞ**  
*AN OVERVIEW OF LISTENING TYPES IN TURKISH EDUCATION*

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## **ABSTRACT**

Listening has an important place in language teaching process. Thanks to listening, the individual finds the opportunity to make sense of what he listens/watches. Listening is also an indispensable element of effective communication process. In this sense, it is aimed to teach listening skills effectively to students in the process of Turkish education. In this process, listening styles emerge as indispensable elements of an effective listening education. The appropriate listening type to be used according to the target acquisitions and listening contents makes a significant contribution to the achievement of the purpose of the listening education. When the literature is examined, the methods, techniques, strategies and types of listening appear as concepts that are confused with each other and used interchangeably. In this respect, this study focused on the concept of listening styles and it was aimed to explain the types of listening based on the studies carried out in Turkish Teaching Programs and the literature. In this respect, the study is a compilation study. In the research, listening styles are discussed and explained under the titles of critical listening, empathic listening, aesthetic listening, creative listening and analytical listening. The study also focused on the relationship between listening styles and other language skills; It has been concluded that listening contributes not only to comprehension skills but also to narrative skills. Based on the results obtained from the study, suggestions regarding the educational activities to be carried out for the types of listening are presented.

**Keywords:** *Turkish education, listening, listening styles, review*

## **ÖZET**

Dil öğretim sürecinde dinlemenin önemli bir yeri vardır. Dinleme ile birey dinlediklerini/izlediklerini anlamlandırma olanağı bulur. Dinleme, etkili iletişim sürecinin de vazgeçilmez bir unsurudur. Bu anlamda Türkçe eğitimi sürecinde dinleme becerisinin öğrencilere etkili bir şekilde kazandırılması amaçlanmaktadır. Bu süreçte dinleme türleri etkin bir dinleme eğitiminin vazgeçilmez unsurları olarak karşımıza çıkmaktadır. Hedef kazanımlar ve dinleme içeriklerine göre kullanılacak uygun dinleme türü gerçekleştirilen dinleme eğitiminin amacına ulaşmasına önemli bir katkı sunmaktadır. Alan yazın incelendiğinde dinleme yöntem, teknik, strateji ve türleri birbiri ile karıştırılan ve birbirleri yerine kullanılan kavramlar olarak karşımıza çıkmaktadır. Bu açıdan bu araştırmada dinleme türleri kavramına odaklanılmış ve Türkçe Öğretim Programları ile alan yazında gerçekleştirilen çalışmalardan hareketle dinleme türlerinin açıklanması amaçlanmıştır. Bu yönüyle çalışma bir derleme çalışmasıdır. Araştırmada dinleme türleri eleştirel dinleme, empatik dinleme, estetik dinleme, yaratıcı dinleme ve analitik dinleme başlıklarında ele alınmış ve açıklanmıştır. Çalışmada aynı zamanda, dinleme türlerinin diğer dil becerileriyle ilişkisi üzerinde durulmuş; dinlemenin sadece anlama becerilerine değil aynı zamanda anlatma becerilerine de önemli katkılar sağladığı sonucuna varılmıştır. Çalışmadan elde edilen sonuçlardan hareketle dinleme türlerine yönelik gerçekleştirilecek eğitsel faaliyetlere ilişkin öneriler sunulmuştur.

**Anahtar Kelimeler:** *Türkçe eğitimi, dinleme, dinleme türleri, derleme*

**TÜRKÇE EĞİTİMİNDE ANALİTİK DÜŞÜNMENİN KAPSAMI ÜZERİNE BİR DEĞERLENDİRME****AN EVALUATION ON THE SCOPE OF ANALYTICAL THINKING IN TURKISH EDUCATION****Cafer ÇARKIT***Gaziantep University, ORCID: ID/0000-0003-4126-2165***Münire ÖZDEN***Giresun University, ORCID:ID/0000-0002-3075-4757***ABSTRACT**

Thinking is an important feature that distinguishes humans from other living beings. Because people make sense of life with thinking. Thinking allows the individuals to interpret events, facts or situations correctly. In this sense, thinking emerges as one of the most important concepts of the education process. Analytical thinking is considered as one of the high-level thinking skills in the education process. It is aimed to teach analytical thinking skills to students in Turkish education, which is a mother tongue teaching process. When the literature is examined, it is seen that the concept of analytical thinking is confused with other high-level thinking skills such as critical thinking and problem solving. In studies, these concepts are used interchangeably. This study focuses on the features, scope and importance of analytical thinking in the context of Turkish education. Thus, it is aimed to contribute to the correct and effective acquisition of analytical thinking skills in Turkish education. In this respect, the study is a structured compilation based on studies on the concept of analytical thinking. In the study, it was concluded that analytical thinking outcomes were included in the 2019 Turkish Course Curriculum, and that analytical thinking is related to the areas of reading, writing, listening and speaking in Turkish education. Suggestions for methods, techniques and applications for improving analytical thinking skills in Turkish lessons are presented.

**Keywords:** *Turkish education, analytical thinking, scope, importance*

**ÖZET**

Düşünme, insanları diğer canlılardan ayıran önemli bir özelliktir. Çünkü düşünme ile insanlar yaşamı anlamlandırır. Düşünme bireylere olay, olgu veya durumları doğru bir şekilde yorumlama olanağı tanır. Bu anlamda düşünme eğitim sürecinin en önemli kavramlarından biri olarak karşımıza çıkar. Analitik düşünme, eğitim süreci içerisinde üst düzey düşünme becerilerinden biri olarak değerlendirilmektedir. Bir ana dili öğretimi süreci olan Türkçe eğitiminde analitik düşünme becerisinin öğrencilere kazandırılması amaçlanmaktadır. Alan yazın incelendiğinde analitik düşünme kavramının eleştirel düşünme ve problem çözme gibi diğer üst düzey düşünme becerileri ile karıştırıldığı görülmektedir. Çalışmalarda bu kavramların birbiri yerine kullanılmasına rastlanmaktadır. Bu çalışmada Türkçe eğitimi bağlamında analitik düşünmenin özellikleri, kapsamı ve önemi üzerinde durulmaktadır. Böylelikle Türkçe eğitiminde analitik düşünme becerisinin doğru ve etkili bir şekilde kazandırılmasına katkı sağlamak amaçlanmaktadır. Bu yönüyle çalışma analitik düşünme kavramı üzerine ortaya konulmuş çalışmalardan hareketle yapılandırılmış bir derleme çalışmasıdır. Çalışmada 2019 Türkçe Dersi Öğretim Programında analitik düşünme kazanımlarının yer aldığı, analitik düşünmenin Türkçe eğitiminde okuma, yazma, dinleme ve konuşma alanları ile ilişkili olduğu sonucuna ulaşılmıştır. Türkçe derslerinde analitik düşünme becerisinin geliştirilmesine yönelik yöntem ve teknik ve uygulama önerileri sunulmuştur.

**Anahtar Kelimeler:** *Türkçe eğitimi, analitik düşünme, kapsam, önem*

**GÖÇMEN ÇOCUKLARIN SOSYAL UYUMLARININ DESTEKLENMESİNDE AİLE  
EĞİTİMİNİN, KATILIMININ ÖNEMİ: ÖRNEK BİR MODEL**  
THE IMPORTANCE OF FAMILY EDUCATION AND PARTICIPATION IN EDUCATION TO  
SUPPORT THE SOCIAL ADAPTATION OF IMMIGRANT CHILDREN: AN EXEMPLARY  
MODEL

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**ABSTRACT**

The attitudes and behaviors of the family and close environment can influence a child's academic, social, psychological, etc. development directly. It also affects and shapes the future of society indirectly. Yavuzer (1999) lists some of the effects of the family on the development and education of a child as follows (pp. 138–139 cited in Akkaya, 2007, p.1):

- It instills a sense of confidence in the child to be a balanced individual in the group.
- It prepares the necessary environment for the child to receive social approval.
- For the child to learn to socialize, it creates a model that includes approved and appropriate behavioral patterns.
- Provides solutions to the problems faced by the child while adapting to social life.
- Provides the acquisition of verbal and non-verbal social habits related to behavior which are necessary for adaptation.
- It contributes to the development of the child's interests and abilities.

Some studies show that school-family cooperation programs affect children's behavior and academic success (Arslan & Nural, 2004; Başaran & Koç, 2001). The most important resources that support the psychological and educational development of children are schools and families. Effective cooperation of these two sources, family participation, school, and family working in harmony are important (Comer & Haynes, 1991 cited in Başaran & Koç, 2001, p.2). Developing and maintaining healthy school-family cooperation is essential for the individual success of students and the efficiency of schools (Başaran & Koç, 2001).

Family participation is important in supporting the social adaptation and academic success of immigrant students (Jeynes, 2003; Georgis, Gokiart, Ford & Ali, 2014). The cooperation between schools and families, family participation in education are important in promoting social cohesion of children who are under temporary protection in Turkey. The various characteristics of the families (race, culture and socioeconomic, sociocultural level, etc.), the education system of the host country, the structure of the schools, etc., as well as logistical barriers (eg access to transport), etc., affect their way of participating in their children's education, its scope, and school-family relationships (Garcia Coll et al., 2009; Turney & Kao, 2009). Besides, the low or no participation of immigrant families in school is misinterpreted as a deficiency in their value system, rather than thinking that it is related to socioeconomic and/or cultural barriers (parents' cultural capital, social class, language skills, etc.) (Georgis, Gokiart, Ford & Ali, 2014; Lightfoot, 2004).

In this study, the content and findings of a transition support program developed by Georgis, Gokiart, Ford & Ali (2014, p.23-27) to support immigrant families' participation in their children's education will be presented. It is aimed to introduce this practice to the field as an exemplary practice in supporting the participation of immigrant families in the school and to present the issue to its stakeholders.

**Keywords:** *Family education, Family participation, Social cohesion, Immigrant families*

**ÖZET**

Ailenin ve yakın çevresinin tutum ve davranışları bir çocuğun akademik, sosyal, psikolojik vb. gelişimini doğrudan ve toplumun geleceğini de dolaylı olarak etkilemekte, şekillendirmektedir. Yavuzer (1999) bir çocuğun gelişimi ve eğitimine ailenin etkilerinden bazıları aşağıdaki gibi sıralamaktadır (ss.138–139 akt. Akkaya, 2007, s.1):

- Çocuğa, grup içinde dengeli bir birey olabilmesi için güven duygusu aşılar.

- Çocuğun sosyal onay görebilmesi için gerekli ortamı hazırlar.
- Çocuğun sosyalleşmeyi öğrenebilmesi için onay görmüş, uygun davranış biçimlerini içeren birer model oluşturur.
- Çocuğun toplumsal yaşama uyum sağlarken karşılaştığı sorunlarına çözüm getirir.
- Uyum için gerekli olan davranışla ilgili, sözlü ve sözel olmayan toplumsal alışkanlıkların kazanılmasını sağlar.
- Çocuğun ilgi ve yeteneklerinin gelişimine katkıda bulunur.

Bazı araştırmalar okul-aile işbirliği programlarının çocukların davranışlarını ve akademik başarılarını etkilediğini göstermektedir (Arslan & Nural, 2004; Başaran ve Koç, 2001). Çocukların psikolojik ve eğitsel gelişimini destekleyen en önemli kaynaklar olarak okulların ve ailelerin etkili işbirlikleri, aile katılımı, okul ve ailenin uyumun gerekliliği vurgulanmaktadır (Comer & Haynes, 1991 akt. Başaran ve Koç, 2001, s.2). Sağlıklı bir okul-aile işbirliğinin geliştirilmesi ve sürdürülmesi, öğrencilerin bireysel başarıları ve okulların verimliliği için elzemdir (Başaran ve Koç, 2001).

Türkiye'ye geçici koruma altına alınmış çocukların sosyal uyumlarının desteklenmesinde okul ile işbirliği, ailelerin eğitime katılımları önemlidir. Aile katılımının göçmen öğrencilerin sosyal uyumlarının, akademik başarılarının desteklenmesinde önemlidir (Jeynes, 2003; Georgis, Gokiart, Ford & Ali, 2014). Ailelerin çeşitli özellikleri (ırk, kültür ve sosyoekonomik, sosyokültürel düzeyleri vb.), ev sahibi ülkenin eğitim sistemi, okulların yapısı vb., ve ayrıca lojistik engeller (örneğin ulaşım erişimi) vb. onların çocuklarının eğitimine katılma şekillerini, kapsamını ve okul-aile ilişkilerini etkilemektedir (Garcia Coll ve diğerleri, 2009; Turney ve Kao, 2009). Ayrıca göçmen ailelerin okula katılımının az ya da hiç olmaması, sosyoekonomik ve / veya kültürel engellerle, (ebeveynlerin kültürel sermayesi, sosyal sınıf, dil yetenekleri vb.) ilişkili olduğunu düşünmek yerine, onların değer sistemindeki bir eksiklik olarak yanlış yorumlanmaktadır (Georgis, Gokiart, Ford & Ali, 2014; Lightfoot, 2004).

Bu çalışmada Georgis, Gokiart, Ford & Ali (2014, s.23-27) tarafından göçmen ailelerin okula katılımını desteklemek için geliştirilmiş bir geçiş destek programının içeriği ve bulguları paylaşılacaktır. Bu uygulamanın göçmen ailelerin okula katılımlarının desteklenmesinde örnek bir uygulama olarak alana kazandırılması, konunun paydaşlarına sunulması amaçlanmaktadır.

**Anahtar Kelimeler:** *Aile eğitimi, Aile katılımı, Sosyal uyum, Göçmen aileler*



## ÇİN HALK CUMHURİYETİ'NDE DİASPORA PROPAGANDASI

### DIASPORE PROPAGANDA IN PEOPLE'S REPUBLIC OF CHINA

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#### **ÖZET**

Çin Halk Cumhuriyeti'nin (ÇHC) bünyesinde Ruslar, Koreliler, Kırgızlar gibi çeşitli ulusların diasporası bulunmaktadır. ÇHC'nin yönetiminde bulunan Çin Komünist Partisi (ÇKP) de propaganda faaliyetlerinde ÇHC sınırları içerisinde bulunan farklı ulusların diasporalarının birlik içerisinde yaşadığı mesajını vermektedir. Özellikle bu propaganda faaliyetlerinde posterlerden sıklıkla yararlanılmaktadır. Çalışmada ÇHC'de bulunan diasporaların propaganda posterlerinde ne şekilde temsil edildiğinin ve hangi göstergeler üzerinden birlik mesajlarının verildiğinin ortaya konulması amaçlanmıştır. Bu amaçla çalışma kapsamında örneklem olarak belirlenen 12 Çin propaganda posterleri, Danimarkalı dilbilimci Louis Hjelmslev'in göstergebilim modeli üzerinden analiz edilmiştir. Çalışmada elde edilen bulgularda, posterler yoluyla Mao'nun liderlik kültürüne vurgu yapılarak ve ÇHC'deki farklı ulusların diasporalarının bir arada yaşamaktan mutlu olduğu algısı oluşturularak ÇHC'deki farklı ulusların diasporalarına yönelik birlik mesajının verilmeye çalışıldığı ortaya konulmuştur.

**Anahtar Kelimeler:** *Çin Halk Cumhuriyeti, diaspora, poster, propaganda, temsil*

#### **ABSTRACT**

There are diasporas of various nations such as Russians, Koreans and Kyrgyzs in the People's Republic of China (PRC). The Chinese Communist Party (CCP), which is under the rule of the PRC, also gives the message that the diasporas of different nations within the borders of PRC live in unity in its propaganda activities. Especially in these propaganda activities, posters are frequently used. In the study, it was aimed to reveal how diasporas in the PRC are represented in the propaganda posters and through which indicators the messages of unity are given. For this purpose, 12 Chinese propaganda posters determined as samples within the scope of the study were analyzed through the semiotics model of the Danish linguist Louis Hjelmslev. In the findings obtained in the study, it was revealed that it was tried to give the message that the diasporas of different nations in the PRC are in unity by emphasizing Mao's leadership cult through posters and making the perception that diasporas of different nations in the PRC are happy to live together through posters.

**Keyword:** *People's Republic of China, diaspora, poster, propaganda, representation*

**ÇEVİRİMİÇİ EĞİTİM HİZMETLERİNİN SOSYAL MEDYADA PAZARLANMASI:  
İKÇÜSEM ÖRNEĞİ**  
SOCIAL MEDIA MARKETING OF ONLINE EDUCATION SERVICES: IKCUSEM CASE

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**ABSTRACT**

Companies and organizations started to reach their target audiences with new and creative strategies with the development of social media. With the strategies named as social media marketing, it is possible to reach the targeted consumers in a cost-effective method and with a large number of repeatable advertising messages. Thus, both sales and awareness of the company's brand, products and services are increasing. With the current developments, social media networks have turned into an important platform for marketing online education services. In this context, e-posters and videos ads displayed in the flow, promotional messages of influencer marketing accounts and electronic word of mouth marketing methods (e-wom) are all elements of integrated social media marketing communication. In the study, commercial unmanned aerial vehicle certification trainings of Izmir Katip Celebi University Continuing Education Centre (İKÇÜSEM), which has demonstrated a successful application by using all these elements, has been analysed with content analysis method. According to the results of the research, with the implementation of social media ads on Facebook, Instagram and related websites and with the support of an influencer Instagram account called Teknorun, education sales increased approximately six times. While the institution was able to serve only 85 trainees in a year with the announcements made on its website, it has served 411 trainees since the start of social media advertising campaigns, that is, in the next four months. In this process, sometimes turnover was obtained 42 times more than the advertising budget, and it was observed that the turnover was maintained despite the price increase in the high demand education product. In order to maintain customer satisfaction and support e-wom, WhatsApp groups were established for the trainees for after-sales support services. It has been determined that satisfied customers demand additional products and this finding support the existing literature. It has also been observed that the satisfied customers have started to defend the institution in social media against disinformation for the institution and its trainings. In the analysis, it has been determined that the contribution of the influencer Instagram account to the awareness and sales success is around 5%. For this reason, it can be said that educational institutions should make very careful cost-benefit analysis on the basis of influencer accounts in their social marketing strategies. Again, considering the advertising support and voluntary advocacy achieved within the framework of e-wom, it can be considered that it is very important to open special groups for trainees on message and data sharing platforms such as WhatsApp and to maintain corporate communication.

**Keywords:** *Globalization, TTIP, TPP, Free Trade, NAFTA*

**ÖZET**

Sosyal medyanın gelişmesiyle şirketler ve kuruluşlar hedef kitlelerine yeni ve yaratıcı stratejilerle ulaşmaya başlamıştır. Sosyal medya pazarlaması olarak karşımıza çıkan stratejilerle, hedeflenen tüketicilere maliyet etkin bir yöntemle ve çok sayıda tekrarlanabilen reklam mesajıyla ulaşmak mümkün olmaktadır. Böylelikle hem satışlar hem de firmanın marka, ürün ve hizmetlerine yönelik bilinirlik artmaktadır. Mevcut gelişmelerle sosyal medya ağları çevrimiçi eğitim hizmetlerinin pazarlanmasında da önemli bir platforma dönüşmüştür. Bu çerçevede akış içerisinde gösterime giren tanıtım afişleri ile reklam videoları, etkileyici pazarlama (influencer marketing) hesaplarının tanıtım mesajları ve elektronik ağızdan ağıza pazarlama metotları (e-wom) entegre sosyal medya pazarlama iletişiminin birer unsuru olarak karşımıza çıkmaktadır. Çalışmada tüm bu unsurları kullanarak başarılı bir uygulama ortaya koymuş olan İzmir Kâtip Çelebi Üniversitesi Sürekli Eğitim Merkezi'nin (İKÇÜSEM) ticari insansız hava aracı sertifika eğitimleri içerik analizi yöntemiyle incelenmiştir. Araştırma sonuçlarına göre Facebook, Instagram ve ilişkili web siteleri üzerinden sosyal medya reklamları uygulanmasıyla ve bunların Teknorun adlı bir etkileyici Instagram hesabı ile

desteklenmesiyle eğitim satışları yaklaşık altı kat artış göstermiştir. Kurum kendi web sitesi üzerinden yaptığı duyurularla bir yıl içerisinde sadece 85 kursiyere hizmet verebilmişken, sosyal medya reklam kampanyalarının başladığı tarihten itibaren, yani sonraki dört ayda 411 kursiyere hizmet vermiştir. Bu süreçte reklam bütçesinin 42 katına varan cirolar elde edilmiş, yüksek talep gören eğitim ürününde fiyat artışına gidilmesine rağmen cironun korunduğu görülmüştür. Müşteri memnuniyetinin devamı ve e-wom desteği amacıyla satış sonrası destek hizmetleri için kursiyerlere WhatsApp gurupları kurdurulmuştur. Bu çerçevede mevcut literatürü destekleyecek şekilde memnun müşterilerin ek ürünlere talep gösterdiği tespit edilmiş; yine söz konusu müşterilerin sosyal medyada eğitimler ve kurum adına yapılan dezenformasyona yönelik olarak kurumu ve eğitimleri savunmaya geçtiği görülmüştür. Yapılan analizlerde etkileyici Instagram hesabının bilinirlik ve satış başarısına katkısının %5 seviyelerinde olduğu tespit edilmiştir. Bu sebeple eğitim kurumlarının sosyal pazarlama stratejilerinde etkileyici hesaplar bazında fayda-maliyet analizini çok dikkatli yapmaları gerektiği söylenebilir. Yine e-wom çerçevesinde elde edilen reklam desteği ve gönüllü savunuculuk göz önüne alındığında, WhatsApp gibi mesaj ve veri paylaşım platformlarında kursiyerlere özel gruplar açılmasının ve kurumsal olarak iletişimin sürdürülmesinin çok önemli olduğu değerlendirilebilir.

**Anahtar kelimeler:** *Sosyal Medya Pazarlaması, Etkileyici Pazarlama, Elektronik Ağızdan Ağıza Pazarlama, Hizmet Pazarlaması.*

**KEY ELEMENTS OF THE STUDY OF POLITICAL PARTIES IN THE DIGITAL ERA**

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**ABSTRACT**

With the evolution of technology, political parties have adapted to the times and have begun to use digital tools more and more in communicating with voters and promoting political programs. Thus, social networks have become indispensable communication channels in the arsenal of any political party, the number of those who appreciate their activity through the famous "like" or posting comments, becoming barometers of popularity and, in some cases, even a means of validating political decisions.

The emergence of social networks and electronic communication tools has led to a radical change in the way how people interact, becoming the new "agora" of the current era.

Having starting point the results of the parliamentary elections held in Romania in 2020, this study presents how political parties have adapted to the new paradigm represented by the so-called virtual reality and analyzes the evolution of the Romanian political scene in the digital era, an evolution closely related to society evolution as a whole.

The aim of this study is to identify the mechanisms that determine the success of political parties in elections. For this purpose, statistical analysis of data on election campaign financing and monitoring the dynamics of party activity in the online environment were used.

**Keywords:** *digitalization, social networks, communication, political parties, elections*

**A STUDY OF THE IMPACT OF EROSION ON THE IJEBU-ODE COMMUNITY IN OGUN STATE, NIGERIA**

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**ABSTRACT**

This study assesses the impact of erosion on the Ijebu-Ode community with the view to proffering possible local and engineering solutions towards minimizing its impact on the livelihood of the people and advance the achievement of the sustainable development goal SDG 11. The erosion prone areas and adjoining properties were identified purposively using Google Earth for the study. A total of 250 questionnaires were administered using systematic sampling on the respondents within 500-meter radius of each identified erosion site to compute the Resident Satisfaction Index (RSI). Apart from questionnaires, the study also made use of field observations, measurements and geographic information System (GIS) for identification and characterization of erosion sites. Results show that RSI's impact of erosion on livelihood activities, revealed that environmental degradation had the highest index of 3.2 which implies that erosion had a high significant impact on environmental degradation in the study area. This was followed by risk on life and property with a RSI of 3.02, disruption of livelihood with RSI of 2.41 and loss of revenue with a RSI of 1.98. This means that the severity of the impact of erosion on livelihood activities was most severe on loss of revenue which is actually the basis that supports human existence and therefore the most threatened. The planning implications are that impact of erosion on livelihood below average needs most urgent attention to improve on the quality of livelihood. Similarly, field observations and measurements identified type A and type B gullies. Type A gullies flows longitudinal to the affected land and due to lack of drainage, therefore it is a serious threat to buildings, roads and lives and has been identified at Ijada street Degun, Lafijo street Apebi and Olokokoku street areas in the study area. The type B gullies flows perpendicular to the land area and before long they turn into deep gullies through a process of backward erosion and examples are found at isoku (Balogun Kuku), Adeyemi and Jada (Imepe) threatening lives and property. The study concludes that erosion is a serious threat to livelihood, lives and property which is exacerbated by poor drainage, lack of drainage of maintenance and community participation. The study therefore, recommends further the active participation of the community for a better and sustained urban drainage management system.

**Keywords:** *Erosion, livelihood, environmental degradation, SDGs, characterization and RSI.*

**THE EFFECT OF EASE OF DOING BUSINESS, MARKET SIZE AND POLITICAL STABILITY ON FOREIGN DIRECT INVESTMENT IN SOUTHEAST ASIA**

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**ABSTRACT**

The achievement of the Sustainable Development Goals (SDGs) in 2030 is an agenda in all countries, including countries in the Southeast Asia Region, most of which are developing countries. Foreign direct investment (FDI) is believed to be able to boost economic growth, which will have implications for several SDGs achievements.

Many factors influence FDI in a country. This study aims to determine the effect of ease of doing business, market size and political stability on foreign investment as a potential capital flow to achieve the success of economic development in Southeast Asia. Potential investors often consider a large area with a large population and market potential, as well as a conducive investment climate for investing.

Research data were obtained from the World Bank, ASEAN Secretariat, and other relevant sources. For the 2010-2019 data period, five ASEAN countries (Indonesia, Malaysia, the Philippines, Thailand and Vietnam) have quite large populations. Panel data multiple regression analysis technique is used to analyze the effect of ease of doing business, market size and political stability on foreign direct investment.

By using the random effect model (REM) which is the best model, all the factors studied have a significant effect on FDI. These results imply that if the ease of doing business, market size and political stability are conducive, the flow of FDI will increase. Therefore, it is necessary to improve a conducive investment climate to encourage increased FDI inflows. Several policies that facilitate the entry of foreign investment need to be addressed, including regional regulations that are not in line with the central government, overlapping regulations, complicated bureaucracy, as well as less flexible labor regulations.

**Keywords:** *foreign direct investment, ease of doing business, market size, political stability, investment policy*

**THE INFLUENCE LEVEL OF EDUCATION, PUBLIC EXPENDITURE OF LABOR AND GENDER EQUALITY ON DIGITAL SKILL OF LABOR IN OECD COUNTRIES**

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**ABSTRACT**

The Industrial Revolution continues to increase with the birth of digital technology that has a major impact on human life, encouraging automation systems in all processes of human life, which it is feared will eventually take over human jobs. The basis for this change is the fast and quality fulfillment of human desires, from manual use to automation or digitization. The digital skills of the workforce are imperative so that they are not left behind in an all-digital work environment. This study aims to determine the effect of education level, public expenditure on labor, and gender equality on the digital skills of the workforce in 33 OECD member countries. The data used are secondary data from the OECD data site, on the percentage of higher education taken, public spending on training, gender equality levels, and the level of digital skills of the workforce, from 2017 to 2018. The data analysis technique in this study uses regression analysis of panel data.

The results of the study based on the best model (Random Effect Model) show that the level of education, public expenditure and gender equality have a positive effect on the digital skills of the workforce in OECD countries with different levels of significance. This result has the consequence that if the workforce does not want to be left behind in an all-digital work environment, then policies that are relevant to improving the digital skills of the workforce must be implemented. These policies include updating the curriculum in accordance with the digital era and the needs of the labor market, improving skills through training and equalizing the rights of men and women.

**Keywords:** *level of education, public expenditure, gender equality, digital skill of labor.*

**INFLUENCE OF SOME HERBICIDES AND HERBICIDE TANK MIXTURES ON GRAIN YIELD AND GRAIN QUALITY OF DURUM WHEAT (*TRITICUM DURUM* DESF.)**

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**ABSTRACT**

The research was conducted during 2015 - 2017 on pellic vertisol soil type. Under investigation was Bulgarian durum wheat cultivar Elbrus (*Triticum durum* Desf.). Factor A included untreated control and 4 antigaminaceous herbicides – Axial 050 EC (pinoxaden) - 900 ml/ha, Topic 080 EC (clodinafop) - 450 ml/ha, Traxos 045 EC (pinoxaden + clodinafop) – 1.20 l/ha and Scorpio super 7.5 EB (fenoxaprop-ethyl) – 1 l/ha. Factor B included untreated control and 4 antibroadleaved herbicides – Biathlon 4 D (tritosulfuron + florasulam) – 55 g/ha, Lintur 70 WG (triasulfuron + dicamba) – 150 g/ha, Granstar super 50 SG (tribenuron-methyl + tiphensulfuron-methyl) – 40 g/ha and Secator OD (amidosulfuron + iodosulfuron) – 100 ml/ha. All of antigaminaceous herbicides, antibroadleaved herbicides and their tank mixtures were treated in tillering stage of the durum wheat. Herbicide tank mixture Traxos + Secator lead to obtaining of the highest grain yield. High yields of durum wheat grain also are obtained by herbicide tank mixtures Traxos + Biathlon and Axial + Biathlon. The grain yield decrease by these herbicide tank mixtures is due to the decrease in the grain number per spike and the grain weight spike. The 1000 grain weight, test weight and vitreousness are increased by influence of the investigated antigaminaceous and antibroadleaved herbicides and their tank mixtures. Antigaminaceous herbicides Axial, Topic, Traxos and Scorpio super, antibroadleaved herbicides Biathlon, Lintur, Granstar super and Secator increase the protein quantity, wet and dry gluten quantities. There is antagonism by herbicide tank mixtures Scorpio super + Lintur and Traxos + Granstar super and protein quantity, wet and dry gluten quantities are lower than these quantities by the alone application of these herbicides.

**Keywords:** Durum Wheat, Herbicides, Herbicide Tank Mixtures, Grain Yield, Structural Elements of the Yield, Grain Quality



**TRAINING NEEDS OF CASSAVA PROCESSORS IN IWO LOCAL GOVERNMENT  
AREA OF OSUN STATE, NIGERIA**

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**ABSTRACT**

Cassava is mostly cultivated in the southwest, Nigeria as an important food and economic crop. The rural women used traditional methods to process cassava tubers into garri, lafun and tapioca for human consumption. However, these traditional techniques call for review and trainings to enable cassava processors adjust to the modern methods of cassava processing. Therefore, this study examined the training needs of cassava processors in Iwo Local Government Area (LGA) of Osun State, Nigeria. A simple random sampling technique was used to select two hundred and forty (240) respondents from the selected LGA. Structured interview guide was the main tool used for data collection and the data were analyzed with SPSS 17. Data were also subjected to the descriptive statistics and correlation analysis. The result shows that 48.9% of the respondents were within the age of 31 – 50 years, 82.9% were females, and 65.2% were married. Findings showed that 84% of the respondents need training for operating milling machine, 76% need training for hydraulic pressing, 51% need training for the packaging and 81% need training marketing strategies. Almost all (99.4%) needs training for the working place hygiene. There is a positive and strong correlation between the cassava processing techniques and the training needs. Additionally, socio-economic characteristics of the respondents have positive correlation with the training needs in the study area. The study concluded that cassava processors need training to bridge the gap between the traditional methods and innovative ways of processing cassava. Therefore the study recommends that extension workers should come up with innovative trainings to improve the skills and capacity of the cassava processors in the study area.

**Keywords:** *Cassava, Garri, Training, processing, innovation, Osun, Nigeria, processors*

**INFLUENCE OF DIFFERENT SEED PRIMING METHODS FOR IMPROVING SALT STRESS TOLERANCE IN COWPEA**

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**ABSTRACT**

Cowpea is considered an important part of cropping systems with a less developed value chain in many parts of Africa. Its grain is considered an important source of proteins (about 25%) and carbohydrate (about 64%), vitamins and fiber. Cowpea is reputed to be the most drought- and heat-resistant crop in semi-arid Africa and tolerate low soil fertility due to their high rate of nitrogen fixation. The study was carried out to assess the effect of seed priming to enhance salt tolerance in Algerian Maghreb Cowpea.

Seeds of two cowpea landraces (A18 and TZ2) were soaked for 4 h at 25°C in the dark in distilled water (hydropriming) or 80 mM of NaCl, 80 mM of CaSO<sub>4</sub> or 80 mM of CaCl<sub>2</sub> (halopriming) separately. Untreated seeds were taken as control (unprimed seeds). Seeds were germinated under three salinity levels (0 (distilled water), 85 mM and 170 mM of NaCl).

In general, germination traits of cowpea landraces decreased with increased salinity levels, however, seed priming significantly increased germination percentage, speed of germination, final germination percentage, radical length, hypocotyl length, epicotyl length and induced better vigour index under saline and nonsaline conditions as compared to the unprimed seed. Hydropriming, or halopriming with NaCl 80 mM or CaSO<sub>4</sub> 80 mM proved to be effective methods. These treatments are reported to be simple, economical and safe techniques and can therefore be employed to improve the performance of cowpea under saline conditions.

**Keywords:** *Cowpea, Halopriming, Hydropriming, Salinity tolerance, Vigour index.*

**GREEN MANURE FROM SPEAR GRASS INFLUENCED SELECTED SOIL PHYSICAL PROPERTIES AND MAIZE PERFORMANCE IN SOUTHERN GUINEA SAVANNA OF NIGERIA**

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**ABSTRACT**

Soil physical condition can be sustained from organic matter derived from organic amendments that is relatively cheap and readily available sources. Therefore, A field experiment was conducted at the Teaching and Research Farm of Ladoke Akintola University of Technology Ogbomosho, between June and September 2019 to determine the effect of green manure from spear grass on soil physical properties, growth and yield of maize. The experiment consisted of spear grass manure applied at 2.5, 5 and 10 tonha<sup>-1</sup>, 2.5 tonha<sup>-1</sup>+ 50% NPK, 120 kgNha<sup>-1</sup> NPK 15-15-15 and a control. The six treatments were arranged in a randomized complete block design with three replicates. Three seeds were sown per hole and later thinned to 1 plant per stand at 2 weeks after sowing. Soil samples were taken from each plot for 12 weeks at 2 week interval to determine soil physical properties as; volumetric moisture content, bulk density and total porosity. Soil and maize growth data were subjected to analysis of variance (ANOVA) and the treatment means were separated using the Least Significant Difference at 5% level of probability. The result showed that green manure from spear grass and NPK fertilizer application significantly increased the plant height, stem girth and leaf area across the 2.5 tonha<sup>-1</sup>+ 50% NPK plot, and the highest recorded at 12 weeks after sowing was 211.33cm, 4.17cm and 760.18cm respectively. The organic from spear grass at 10t/ha also significantly increase the gravimetric moisture content with 14.05% recorded at T<sub>2</sub> plot 12 weeks after sowing, increased total porosity towards 10 weeks after sowing with the value of 3.66% and decrease the bulk density towards T<sub>2</sub> plot in 12 weeks after sowing with the value of 2.27mg/m<sup>3</sup>. In conclusion, spear grass at 10t/ha improved soil moisture, growth and yield of maize when compared with other treatments.

**Keywords:** *Spear grass, green manure, NPK, Physical properties*

**EVALUATION OF CHEMICAL QUALITIES OF SMOKED ELEPHANT SNOUTFISH  
(*MORMYRUS RUME*) FROM NEW BUSSA, NIGER STATE, NIGERIA**

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**ABSTRACT**

Fish is a much desirable delicacy of human diet because of its high nutritive qualities which may vary according to the surrounding environment and processing methods. However, its contamination may regrettably occur at source (in aquatic environment), or through exposure to elemental heavy metals during preservation and processing leading to exposure of consumers to threat posed by the contaminants. This study then investigated biosafety of Elephant snoutfish (*Mormyrus rume*) in New Bussa, Niger State to possibly enhance the consumer's knowledge about quality of the fish after popular smoking processing. Fish samples was randomly collected from different vendor in "Monday Market" and processed for its nutrient and heavy metal compositions. The result revealed nutrient compositions ranged in the following trend protein (54.28 – 55.28 %) > Nitrogen Free Extract (24.48 – 25.27 %) > Crude fat (8.50 - 9.20 %) > Ash (8.45 – 8.99 %) > Moisture (3.60 – 3.90 %) > crude fibre (0.01 – 0.03 %) while Heavy metals concentration trend thus Fe (307.32 – 373.86 mg/kg) > Zn (91.47 – 96.21 mg/kg) > Cu (3.35 – 3.59 mg/kg) > Co (0.85 – 1.01 mg/kg) > Pb (0.18 – 0.34 mg/kg) > Ni (0.03 – 0.036 mg/kg). In the fish samples, all the metals of interest were detected except Cd and Cr which was not found in any of the samples analysed. Fe with an average of 337.94 mg/kg was above the maximum permissible limit of 100 mg/kg recommended for human consumption.

**IMPACT OF *MNEMIOPSIS LEIDYI* ON THE SOUTHERN CASPIAN SEA ZOOPLANKTON  
STRUCTURE VIA QUANTITATIVE ASSESSMENT DURING 1996-2010**

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**ABSTRACT**

*Mnemiopsis leidyi* was introduced to the Caspian Sea in 1999. After arriving, density and biomass of *M. leidyi* increased rapidly and then density and biomass of zooplankton decreased. Consequently, The Caspian Sea ecosystem was damaged significantly by invasive species. In this study, the data belong to the period of 1996 to 2010 were collected and analyzed. The period was classified into two phases, including: before invasion of *M. leidyi* (1996), and after invasion of *M. leidyi* (2001-2010). In our study, quantitative assessment of the impact of the invasive species on structure of the southern Caspian zooplankton communities was evaluated. Combination of abundance and distribution range of the invasive species (ADR) during the periods 2001-2009 and 2010 were evaluated as E (occurrence in high numbers in all localities) and D (occurrence in moderate numbers in all localities), respectively. Considering the obtained results, the year 2001, the relative biomass of invasive species was more than 90 percent in 2001 that could be considered as the expansion phase and the following years (2002-2010) as the adjustment phase. With regards to the loss of the keystone and some other native species after the invasion of *M. leidyi* (2001 to 2010), the impact of the invasive species on structure of the southern Caspian Sea zooplankton communities was assessed as massive (C4).

**Keywords:** *Mnemiopsis leidyi*, Zooplankton structure, Southern Caspian Sea coast

INVESTIGATION OF HEAVY METALS IN CAGE CULTURE IN THE SOUTHERN PART  
OF THE CASPIAN SEA

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**ABSTRACT**

Today, the development of aquaculture as one of the important strategies in providing protein resources has played a role, and in the meantime, fish farming in cages has enjoyed a certain growth and prosperity in recent decades. In this study, which was conducted in the southern part of the Caspian Sea, the metals iron, zinc, copper, chromium, nickel, cadmium, manganese, lead and mercury were studied in water and sediment. The results showed that there was no significant difference between heavy metals of different stations in water and sediment samples. According to the results, it is essential that fish farming in cages management be cautious and careful.

**Keywords:** *Fish , Cage Culture, Heavy Metals ,Caspian Sea.*

**THE INHIBITORY EFFECT OF RAINBOW TROUT (*ONCORHYNCHUS MYKISS*) SKIN  
HYDROLYSATE ON EXOTOXIN A GENE EXPRESSION IN *PSEUDOMONAS  
AERUGINOSA***

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**ABSTRACT**

The fish hydrolyzed protein is the potential source of bioactive peptides. These peptides are inactive in the original structure of the protein molecule, but they can be activated after enzymatic hydrolysis. In this research, the effect of inhibitory concentration (IC<sub>50</sub>) rainbow trout hydrolyzed proteins (<3kDa) was evaluated on exotoxin A gene expression of *Pseudomonas aeruginosa* ATCC 27853 (the strain of exotoxin A producer). After affecting IC<sub>50</sub> of the fish hydrolyzed protein (<3kDa) and *Pseudomonas aeruginosa* 1.5×10<sup>8</sup> cfu/ml in BHI broth medium and incubating for the durations 8 and 24 hours after exposure (logarithmic phase and stationary phase of *Pseudomonas aeruginosa* growth, respectively), the gene expression of exotoxin A was investigated using Real-Time PCR. *ger A* used as an housekeeping endogenous control. It was found that the inhibitory concentration of only <3kDa fish hydrolyzed protein using the Flavourzyme enzyme (HF3) had an inhibitory effect on gene expression of exotoxin A of *Pseudomonas aeruginosa* in logarithmic phase. Therefore, the use of fish hydrolyzed protein can provide a new strategy for using these proteins as natural factors in preventing toxin production, due to the high quality and safety of sensitive foods.

**Keywords:** *Bioactive Peptides · Gene Expression · Pseudomonas aeruginosa - Rainbow trout*

**THE ACTIVITY OF PLATELETS IN NEWBORN CALVES OF THE YAROSLAVL BREED**

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**ABSTRACT**

The functional state of platelets in cattle can vary depending on many factors external and internal environment. Of great interest is the status of their activity at the beginning of ontogenesis, which may vary in different species of animals. The aim of this work is to find out the activity of platelets in newborn calves in the Yaroslavl breed. The study was conducted on 34 of the Yaroslavl breed calves obtained from healthy cows after 2-3 of pregnancy. All calves were examined for the planning of 1-2, 3-4, 5-6, 7-8 and 9-10 day of their lives. The applied biochemical, hematological and statistical methods of research. The examined calves during the neonatal phase, a tendency to increased activity of platelet aggregation in response to all tested inducers. The number of discoid platelets in the blood of calves of the Yaroslavl breed experienced a tendency to decrease during the observation period. The number of victims of platelet activation during the observation they have increased by 10.4%. The number of circulating blood of small and medium and large aggregates of platelets also had their rising trend during the phase of neonatal. These changes are largely provided in calves Yaroslavl breed a tendency to increase synthesis of thromboxane in platelets. This occurred as a result of the strengthening in them of cyclooxygenase and thromboxane synthetase. A large role was played by increase of a level of content in platelets of adenosine phosphates and a tendency to increase their secretion. The quantitative content of actin and myosin in intact platelets calves in the Yaroslavl breed was increased in the phase of neonatal 6.7% and 13.8%, respectively. While they have a marked tendency to increase synthesis of additional actin and myosin on the background of platelet aggregation by 6.7% and 10.4%, respectively. The data obtained suggest that newborn calves in the Yaroslavl breed is characterized by low activity of aggregation and secretion of platelets. This ensures that they have good conditions for the process of microcirculation. Small intravascular platelet activity in those calves creates the necessary conditions for metabolism in the tissues, promoting their growth and development.

**Keywords:** calves, newborn Yaroslavl breed, platelets, aggregation, secretion.



**E-LEARNING: DEPRESSION, ANXIETY, AND STRESS SYMPTOMATOLOGY  
AMONG LEBANESE UNIVERSITY STUDENTS DURING COVID-19  
QUARANTINE**

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**ABSTRACT**

E-learning has been adopted internationally as the alternative teaching or learning strategy during the coronavirus disease 2019 (COVID-19) quarantine to fill the academic gap that has been created by the existing reality of the pandemic due to nationwide closures. Aim: This study aims at evaluating the prevalence of depression, anxiety, and stress symptomatology among Lebanese University Students during the COVID-19 Quarantine. Methodology: A quantitative cross sectional research design, where 520 undergraduate university students were surveyed regarding their satisfaction with e-learning and the prevalence of depression, anxiety, and stress symptomatology using depression, anxiety, and stress scale-21 elements. Results: Learning through online platforms have given rise to depression and anxiety disorders among undergraduate university students, where there was a significant correlation between student satisfaction and prevalence of depression, anxiety, and stress. Conclusion: The sudden shift to exclusive e-learning methods of instruction have produced anxiety and depression symptoms among a significant portion of the students due to the stressful load of work required.

**Keywords:** Anxiety, COVID-19, Depression, E-learning, Stress.

**DETERMINANTS OF PATIENT READMISSIONS IN THE FIRST TWO YEARS AFTER  
CORONARY REVASCULARIZATION THERAPY**

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**ABSTRACT**

**Objectives** To investigate and quantify the readmission rate in the Heart Failure Department and framing the prediction of their risk in patients after heart revascularisation therapy.

**Methods** The sample included 160 patients (77, 1 % of males and 22, 9 % of females) who underwent coronary artery bypass grafting, percutaneous coronary angioplasty and previously were admitted to our department. Logistic regression with an odds ratio (OR) and 95% confidence intervals (CI) estimated, a p-value lower than 0.05 and the IBM SPSS 22.0 Statistics Software defined the results.

**Results** Among hospitalizations in the above period, 69,51%, OR 1.81, 95% CI 1.6 to 1.92 cases were readmitted within the next 107±4 days p<0,001 from the patient's discharge from hospital. The highest number of readmissions were among the patients with non-cardiovascular comorbidities. Associations of non-cardiovascular comorbidities with patient readmissions were mainly determined by chronic obstructive pulmonary disease, OR 1.89, 95% CI 1.70 to 2.04 and acute respiratory infections, OR 1.62, 95% CI 1.27 to 1.78. The strong associations between cardiovascular comorbidities and readmissions was determined by patients after stroke, OR 2.03, 95% CI 1.86 to 2.50. Mainly emergency rehospitalisation's were registered p<0.002.

**Conclusions** The predisposing factors for readmissions in our institution were mainly non-cardiovascular comorbidities. The low quantification of patients after stroke as a cardiovascular comorbidity leading to readmission was the reason of strong statistical significance. All-cause comorbidities contribute to hospital re-admissions, thus, we determined the importance of including their management as a part of heart failure treatment.

**Keywords:** *heart failure, cardiovascular, readmission rate*

**ANALYSIS OF THE CHILD MORBIDITY ON THE DATA OF OBLIGATORY ANNUAL MEDICAL CHECK-UP EXAMINATION****Zakiyya M. MUSTAFAYEVA****Prof. Zemfira M. GULIYEVA***Department of Pediatrics, Baku, Azerbaijan*

**Preface** Children obligatory annual medical check-up examination of has been introduced in Azerbaijan in 2014. The annual check-ups allow analyzing the health condition of the child population. In particular, analyzing of the collected data of the child morbidity in different age groups provide the key indicators for planning of preventive and treatment measures for each age group of the children.

**Aim of the study** Analysis of structure child diseases in different age groups.

**Materials and methods:** Raw data on the results of children obligatory annual medical check-up examinations for the year 2019 in Baku city regional outpatient clinic # 13 has been analyzed and distribution of different morbidity in various child age groups has been found.

**Results** The data on obligatory annual medical check-up examinations of 1,700 children were analyzed. For the analysis of the morbidity of the studied children were divided into three age groups: 0-5 y (I group), 6-13 y (II group), 14-17 y (III group). The group of children aged 0–5 years was 29.4%, 6–13 years - 47.1%, 14–17 years - 23.5% of the total number of children studied. Considering the data obtained in the age aspect, it was revealed that the level of general morbidity is higher in the first age group (0-5 years) and is 1835.6 per 1000 children, in the second group it decreases to 970.2 per 1000 children and in the third group it is 836.4 per 1000 children. In all age groups in the structure of pathology, respiratory diseases is the most prevalent. For instance, in the first age group (0-5 years), respiratory diseases morbidity is 876.90 per 1000 children.

The second most prevalent morbidity is infectious diseases (154.30 per 1000 children), the third is diseases of the digestive system (123.00 per 1000 children), the fourth endocrine diseases (59.51 per 1000 children), followed by diseases of the blood and blood-forming organs (52.60 1000 children).

In the second age group (6-13 years old), the most prevalent is respiratory diseases (544.05 per 1000 children), in the second - diseases of the digestive system (90.45 1000 children), in third is endocrine diseases (35.9 per 1000 children), the fourth is eye diseases (32.75 per 1000 children), the fifth is infectious and parasitic diseases (32.65 per 1000 children).

In the third age group (14-17 years old), the most prevalent is respiratory diseases (425.05 per 1000 children), the second is diseases of the digestive system (81.45 per 1000 children), the third place is endocrine diseases (36.8 per 1000 children), the fourth is injuries and poisoning (35.8 per 1000 children), followed by diseases of the skin and subcutaneous tissue (31.95 per 1000 children).

**Conclusions** The study showed that children morbidity is the highest in the youngest child group (0-5 years old). Children of this age group have to be under the special supervision of district pediatricians when carrying out health care and epidemiological control measures. Moreover, in all age groups the respiratory diseases are the most prevalent. Diseases of the digestive system, infectious diseases and diseases of the endocrine system, nutritional disorders and metabolic disorders are also predominant in all age groups in the structure of childhood diseases. The structure of morbidity must be taken into account when planning service delivery and improving the qualifications of health care professionals.

**SIDE EFFECTS OF HELICOBACTER PYLORI THERAPY AND THE ROLE OF  
ANTIBIOTIC SUSCEPTIBILITY TESTING IN TREATMENT**

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**ABSTRACT**

*Helicobacter pylori* (*H. pylori*) influences more than 50% of the world's population infected portion. *H. pylori* contamination gastritis, stomach and duodenum ulcers, mucosal-associated tissue lymphoma (MALT), and major gastric cancer is one of the reasons. Agreeing to wellbeing conventions, within the treatment of these illnesses 2nd, 3rd, 4th destruction treatment, which incorporates anti-microbials and proton pump inhibitors combination is utilized. Anti-microbials without AHT in all countries therapy is performed. In this manner, the negative results of destruction and day by day We confront the issue of expanding anti-microbial resistance.

**Materials and methods:** NLM (United States National Library of Medicine) and about *H.pylori* therapy using the Google search network more than 200 research studies have been conducted.

**Results:** In the treatment of not only clarithromycin, but also metranidazole and fluoroquinolones unsuccessful results increase due to increased resistance. *H. pylori* antimicrobial effective recovery while preventing resistance buildup a new eradication therapy that provides a targeted, uncomplicated treatment profile needs to be improved. What's more, a large number of currently used long-term treatment with antibiotics may increase the number of resistant strains. Treatment requires a new, more effective strategy to reduce the number of antibiotics used and their side effects, as well as eliminate the causative agent.

**Discussion:** Bacterial according to the protocols adopted by the World Health System although we rely on antibiotic susceptibility testing in the treatment of etiological diseases this factor is not taken into account in the treatment of *H.pylori*, which causes such serious diseases.

**Keywords:** *Antibiotics; Antimicrobials; Helicobacter; Antibiotic susceptibility testing*

**EVALUATION OF THE EFFICIENCY OF THE REHABILITATION PROGRAM FOR THE RECOVERY OF THE UPPER LIMB FUNCTION USING FUNCTIONAL TESTS**

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**Abstract:** the work of scientists is summarized and the legal basis for solving the problem of the effectiveness of the rehabilitation program to restore the function of the upper extremity is analyzed. The application of modern techniques and functional tests for the development of biologically active feedback in the rehabilitation of patients after stroke, contribute to a more intensive recovery of upper extremity function.

**Keywords:** *rehabilitation program, functional tests, stroke, compensation, upper extremity functions.*

**SERUM LEVELS OF CARBAMYLATED LDL IN MIDDLE-AGED MEN WITH NASCENT METABOLIC SYNDROME**

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**ABSTRACT**

**Background:** The carbamylation of low-density lipoprotein (LDL) is a posttranslational non-enzymatic modification of the amine-containing residues in apolipoprotein B by urea-derived cyanate. Hence, carbamylation has previously been considered quantitatively important only in patients with renal diseases. However, a novel myeloperoxidase-mediated mechanism of carbamylation has recently been discovered. Elevated myeloperoxidase levels have been associated with metabolic syndrome (MetS) - a constellation of central obesity, hypertension, dyslipidemia and hyperglycemia. Nevertheless, there are no studies on carbamylated LDL (cLDL) levels in patients with MetS.

**Objectives:** Since carbamylation progresses during aging, the present study aimed to investigate the serum levels of cLDL in middle-aged patients with MetS. The associations between serum cLDL concentration and MetS components were also analyzed.

**Methods:** The study included 19 men with nascent MetS compared to 17 age-matched male healthy controls with no history of metabolic disorders. Serum cLDL concentrations were determined using an ELISA method.

**Results:** The patients with MetS had significantly higher serum levels of cLDL than the healthy controls ( $p < 0.001$ ). A positive significant correlation between cLDL and urea was established only in the control group. Carbamylated LDL did not correlate significantly with any of the MetS components with the exception of serum triglycerides ( $r = 0.329$ ,  $p = 0.024$ ). Furthermore, there was a tendency for a positive correlation between cLDL and homeostasis model assessment (HOMA-IR)-estimated insulin resistance ( $r = 0.215$ ,  $p = 0.056$ ).

**Conclusions:** Our findings suggest a possible association between the increased, urea-independent cLDL levels and the development of MetS and insulin resistance.

**Keywords:** *carbamylated LDL, metabolic syndrome, insulin resistance, lipoprotein modifications*

**EXPLORING THE POTENTIAL OF MOBILE APPLICATIONS IN CLINICAL TRIALS IN BULGARIA**

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**ABSTRACT**

**Objectives:** Exploring the potential and applicability of a mobile application as a tool which facilitates targeting and two-way communication between patients and healthcare professionals in clinical trials.

**Methods:** This is a structured questionnaire-based cross-sectional study. It included as respondents 259 Bulgarian patients (228 female, 29 male and 2 undisclosed) having chronic diseases and at least basic technical skills. An alpha version of android based mobile application was developed using the FDA-My-Studies 2019.10. mobile application system.

**Results:** Eighty percent of the study participants self-evaluated their technical skills to be average and above average. Furthermore, 96.1% of the respondents would rather use their phone to report change in health status to their physician. Approximately 85% of the patients have not participated in clinical trials before, but 55% would like to do so in the future. The fear of adverse reactions was outlined as the major reason among 86.8% of the participants not willing to be enrolled in a future clinical trial.

**Conclusions:** There is a need for a mobile application to facilitate patients' reporting to their physicians. Only a small part of the respondents have previously been recruited in clinical trials. The main fear of inclusion in clinical trials is the development of side effects and / or unexpected reactions. The potential of mobile applications and telemedicine in clinical trials has not been fully developed and used yet.

**Keywords:** *Clinical trials, mobile application, telemedicine*

**CHANGES IN THE CONTENT OF CYTOKINES IN GENERALIZED PERITONITIS**  
**YAYGIN PERİTONİTDE SİTOKİN İÇERİĞİNDEKİ DEYİŞİKLİKLER**

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**ABSTRACT**

The main link in the development of generalized purulent peritonitis is the development of a systemic inflammatory response, which is manifested by an imbalance in the pro-inflammatory cytokine system. The aim of this work was a comparative study of the secretion of cytokines in generalized purulent peritonitis (GPP) For this purpose, the levels of pro-inflammatory cytokines IL-2, IL-6, IL-8 and TNF- $\alpha$  were determined in the blood of 97 patients with GPP of different genesis and varying degrees of distribution, who received treatment at the Department of Surgical Diseases of the III Azerbaijan Medical University. The control group consisted of 16 apparently healthy individuals. The concentration of cytokines was determined by the method of enzyme-linked immunosorbent assay using a set of reagents from "Vector-Best" (Russian Federation). In the reactive phase of RGP in patients of the comparison group before surgery, the content of IL-2 was statistically significantly increased - 2.1 times (control:  $3.4 \pm 0.4$  pg / ml;  $7.1 \pm 0.7$  pg / ml), IL-6 - 3.5 times (control:  $2.1 \pm 0.2$  pg / ml;  $5.5 \pm 0.8$  pg / ml), IL-8 - 2.0 times (control:  $35.2 \pm 2.9$  pg / ml;  $62.6 \pm 5.1$  pg / ml), TNF- $\alpha$  - 3.9 times (control:  $4.4 \pm 0.5$  pg / ml;  $14.4 \pm 1.2$  pg / ml). In the toxic phase of GPP in patients of the comparison group before surgery, a statistically significant increase in the content of IL-2 was also observed - 5.5 times ( $18.6 \pm 1.0$  pg / ml), IL-6 - 5.8 times ( $12, 3 \pm 0.8$  pg / ml), IL-8 - 2.2 times ( $79.0 \pm 6.7$  pg / ml) and TNF- $\alpha$  - 6.5 times ( $28.7 \pm 2.1$  pg / ml). In the terminal phase of GPP in patients before surgery, a statistically significant increase in the content of IL-2 was revealed - by 8.7 times ( $29.7 \pm 8.6$  pg / ml), IL-6 - by 8.7 times ( $18.5 \pm 7, 2$  pg / ml), IL-8 - 4.7 times ( $164.9 \pm 47.0$  pg / ml) and TNF- $\alpha$  - 8.6 times ( $38.0 \pm 7.8$  pg / ml). Before surgery, all patients with different severity levels showed a significant increase in the concentration of proinflammatory cytokines IL-2, IL-6, IL-8 and TNF- $\alpha$  in comparison with the indicators of healthy individuals. At the same time, the highest concentrations of cytokines were observed in patients in the terminal phase of the disease. These cytokines can serve as markers for the diagnosis and monitoring of sepsis and the severity of the inflammatory process in peritonitis.

**Keywords:** *Generalized purulent peritonitis, cytokines, sepsis markers*

**ÖZET**

Yaygın pürülan peritonit gelişimindeki ana halka , pro-enflamatuar sitokin sisteminin dengesizliği ile kendini gösteren sistemik bir enflamatuar yanıtın gelişmesidir. Bu çalışmanın amacı, Yaygın pürülan peritonitte (YPP) sitokinlerin salgılanmasının karşılaştırılmasıdır. Bu amaçla, Azerbaycan Tıp Üniversitesi hastanesinde tedavi gören farklı etioloji ve yayılma derecelerine sahip 97 YPP 'li hastanın kanında proinflamatuar sitokin IL-2, IL-6, IL-8 ve TNF- $\alpha$  düzeyleri belirlendi. Kontrol grubu görünüşte sağlıklı 16 kişi teşkil etmiştir. Sitokinlerin konsantrasyonu, "Vector-Best" ten (Rusya Federasyonu) reaktif kullanılarak enzime bağlı immünosorbent deneyi yöntemi ile belirlendi. Ameliyat öncesi karşılaştırma grubundaki hastalarda YPP'nin reaktif fazında, IL-2 içeriği istatistiksel olarak önemli ölçüde artmıştır - 2.1 kat (kontrol:  $3.4 \pm 0.4$  pg / ml;  $7.1 \pm 0.7$  pg / ml), IL -6 - 3,5 kat (kontrol:  $2,1 \pm 0,2$  pg / ml;  $5,5 \pm 0,8$  pg / ml), IL-8 - 2,0 kat (kontrol:  $35,2 \pm 2,9$  pg / ml;  $62,6 \pm 5,1$  pg / ml), TNF- $\alpha$  - 3,9 kat (kontrol:  $4.4 \pm 0.5$  pg / ml;  $14.4 \pm 1.2$  pg / ml). Karşılaştırma grubundaki hastalarda ameliyattan önce JPP'nin toksik fazında, IL-2 içeriğinde istatistiksel olarak anlamlı bir artış da gözlemlendi - 5.5 kat ( $18.6 \pm 1.0$  pg / ml), IL-6 - 5.8 kat ( $12, 3 \pm 0,8$  pg / ml), IL-8 - 2,2 kat ( $79,0 \pm 6,7$  pg / ml) ve TNF- $\alpha$  - 6,5 kat ( $28,7 \pm 2,1$  pg / ml). Ameliyat öncesi hastalarda YPP'nin terminal fazında, IL-2 içeriğinde 8.7 kat ( $29.7 \pm 8.6$  pg / ml), IL-6'da 8.7 kat( $18.5 \pm 7, 2$ ) istatistiksel olarak anlamlı bir artış ortaya çıktı. Ameliyattan önce, farklı şiddet skoruna sahip tüm hastalar, sağlıklı bireylerin göstergelerine kıyasla proinflamatuar sitokinler IL-2, IL-6, IL-8 ve TNF- $\alpha$  konsantrasyonunda önemli bir artış gösterdi. Aynı zamanda, hastalığın terminal fazındaki hastalarda en yüksek sitokin konsantrasyonları gözlemlendi. Bu sitokinler, sepsisin teşhisi, izlenmesi ve peritonitte enflamatuar sürecin ciddiyeti için belirteçler olarak hizmet edebilir.

**Anahtar Kelimeler:** *Yaygın pürülan peritonit, sitokinler, sepsis markeri*



**THE DYNAMICS OF THE FUNCTIONALITY OF THE CARDIOVASCULAR SYSTEM IN  
THE CONDITIONS OF RECREATIONAL IMPACT**

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**ABSTRACT**

The use of coronary artery bypass grafting due to its complexity and invasiveness requires effective physical rehabilitation. In this regard, inclusion of health tourism into the composition of these measures was considered to be very promising, which could significantly minimize the consequences of the operation in the late postoperative period and improve the quality of life of patients and their degree of adaptation to any form of activity. The study was conducted on 37 patients aged 45-65 years who underwent coronary artery bypass grafting 3 months ago. Patients who received rehabilitation using wellness tourism showed an acceleration and deepening of recovery. Only with its use it was possible to more fully strengthen the cardiovascular system, to optimize the overall physical fitness and ability to self-service. One can think that the use of health tourism provides a quick and pronounced healing effect in patients after coronary artery bypass grafting due to powerful stimulation of the muscular, vascular, respiratory and nervous systems, balancing the processes of anabolism and catabolism and stimulating protein synthesis throughout the body.

**Keywords:** *coronary artery bypass grafting, rehabilitation, health, tourism, rehabilitation.*

**INCIDENCE OF PELVIC FRACTURES IN THE ADULT POPULATION WHO RECEIVED  
MEDICAL ASSISTANCE AT THE INSTITUTE OF EMERGENCY MEDICINE, CHIȘINĂU,  
REPUBLIC OF MOLDOVA IN 2019**

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**ABSTRACT**

Pelvic fractures are severe lesions and are often associated with multiple skeletal lesions. The related literature on the general epidemiology of these lesions is poor. Our goal was to study the epidemiology of hospitalized patients with pelvic fractures at level 1 trauma center in the Republic of Moldova. Information on epidemiological trends in pelvic fractures and medical care for the general population is limited. Therefore, we determined the incidence of pelvic fractures that received medical assistance at the largest trauma and surgical center in the Republic of Moldova for 2019, the year before the SarsCov - 2 pandemic and restrictions. We used data from the information system used in the Institute of Emergency Medicine to calculate the incidence of pelvic fractures, patient characteristics, causes of trauma, amount of medical care provided. All patients over the age of 18 and over were included in the study. Patient demographics, lesion mechanism, and complications were recorded retrospectively.

**Keywords:** *bone fractures / epidemiology, pelvic bones / lesions, epidemiological studies*

**CARDIAC SURGERY RISK FOR AORTIC VALVE REPLACEMENT IN PATIENTS WITH AORTIC STENOSIS WITH ATHEROSCLEROTIC LESIONS IN CORONARY ARTERIES**

**Dede EGOR**

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**Aim:** To determine cardiac surgery risk in patients with coronary artery disease in context of aortic valve replacement.

**Methods:** We conducted a prospective transverse study that included 39 patients with severe aortic stenosis. The patients were examined according to a questionnaire, included general data, electrocardiography, echocardiography and preoperative angiography of coronary arteries; EuroSCORE II was performed.

**Results:** The average age of the study group was  $62,3 \pm 0,08$  (42-71) years, 10(25.6%) women and 29(74.3%) men. Echocardiography showed reduced ejection fraction (EF) in 9(23.1%) patients. Coronary artery lesions by angiography were found in 14(35.9%) patients. So isolated valve replacement was indicated in 18(46.2%), 2 surgical procedures - 6(15.4%) and 15(38.4%) and needed 3 surgical procedures, including 14(35.9%) patients aortocoronary bypass grafts. According to EuroSCORE II the average risk of specific postoperative complication and perioperative mortality in the study group was 2.9%(0.73% - 15.18%). Low risk was in 2(5.2%) patient, mean risk - 8(20.5%), mean-high risk – 10(25.6%), high risk – 10(25.6%) patients and 9(23.1%) patients had very high risk.

**Conclusion:** Cardiac surgery risk by EuroSCORE II is higher in patients with aortic stenosis for aortic valve replacement and concomitant CABG versus patients with isolated aortic valve replacement.

**Keywords:** *Aortic stenosis, Aortic valve replacement, EuroSCORE II, CABG.*

## ETIOLOGICAL FEATURES OF VALVULAR HEART DISEASES

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**Aim:** To establish the etiology and comorbidities in valvular heart diseases patients.

**Methods:** The study group included 21 patients with valvular heart disease (VHD) diagnosed according clinical features and investigations methods. They were analyzed the history of disease, risk factors, transthoracic and Doppler echocardiography. Charlson Comorbidity Index (CCI) was performed.

**Results:** The average age in the study group was  $61.4 \pm 0.03$  (48-74) years, 12 (57.2%) women and 9 (42.8%) men. The rheumatic etiology of VHD was found in 10 (47.6%), degenerative - 8 (38.1%), infectious endocarditis - 2 (9.5%) and congenital cause - in 1 (4.8%) cases. The analyze of cardiovascular risk factors show hypertension in 14 (66.7%), dyslipidemia - 8 (38.1%), smoking - 6 (28.6%), obesity - 12 (57.1%) and family history of early heart disease - in 4 (19%) patients. Reduced ejection fraction (EF) by Echocardiography ( $<50\%$ ) had - 4 (19%) patients, mitral stenosis was present - 8 (38.1%), mitral regurgitation - in 14 (66.6%) patients, aortic stenosis - 6 (28.6%) aortic regurgitation - 18 (86%), tricuspid regurgitation - 19 (90.4%) patients. The CCI was identified as low ( $\leq 2$  points) in 12 (57.1%) and moderate (3- 4 points ) in 5 (23.8%) cases.

**Conclusion:** Rheumatic etiology of the valvular heart diseases predominated in this study group, followed by a degenerative cause. Patients showed low and moderate comorbidity risk according to the Charlson Comorbidity Index.

## KOLELİTİAZİSLİ HASTALARDA TEDAVİDEN SONRA ANTİMİKROBİYAL PEPTİDLERİN DİNAMİKLERİNİN İNCELENMESİ

STUDY OF THE DYNAMICS OF ANTIMICROBIAL PEPTIDES AFTER TREATMENT IN PATIENTS WITH CHOLELITHIASIS

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Kolelitiaziste (GBL) metabolik ve detoksifikasyon süreçlerinin ihlalleri, bağışıklık sisteminin ve antimikrobiyal savunmanın zayıflamasına yol açar. Bu bağlamda, antimikrobiyal peptidler (AMP), özellikle zonulin, laktoferrin ve kalprotektin çalışması, safra taşı hastalığı sırasında patogeneze büyük önem taşımaktadır. Çalışmada Azerbaycan Tıp Üniversitesi Cerrahi Kliniğinde ameliyat edilen kolelitiazisli 38 hastada ameliyat öncesi ve sonrası dışkıdaki AMP değişikliklerinin dinamikleri izlendi. Kontrol grubu, uygun yaşta görünürde sağlıklı 14 kişiden oluşuyordu. Koprofiltrattaki zonulin, kalprotektin ve laktoferrin konsantrasyonu, Immun Diagnostic (Almanya) 'dan bir reaktif kiti kullanılarak enzime bağlı immünosorbent deneyi ile ölçüldü. Operasyon sonrası hastalar tedavi rejimine göre iki gruba ayrıldı. Grup I hastalarına (n = 17) standart geleneksel tedavi verildi, grup II hastalarına (n = 21) standart tedaviye ek olarak hepatoprotektörler, kombine enzim preparatları, pre- ve probiyotikler verildi. Kolelitiazisli hastalarda ameliyat öncesi dönemde yüksek AMP düzeyleri tespit edildi. Grup I ve II'deki hastalarda ameliyattan önce zonulin konsantrasyonu 2,2 kat ( $2,06 \pm 0,31 \mu\text{g} / \text{g}$ ;  $p = 0,012$ ) ve % 91,7 (sırasıyla  $1,77 \pm 0,28 \mu\text{g} / \text{g}$ ;  $p$  sırasıyla) = 0,011); kalprotektin - 5.8 kez ( $114.1 \pm 13.7 \text{ mg} / \text{g}$ ;  $p < 0.001$ ) ve 5.8 kez ( $114.1 \pm 18.0 \text{ mg} / \text{g}$ ;  $p < 0.001$ ); Laktoferrin - Kontrol grubuna göre 60.0 kat ( $53.5 \pm 6.1 \mu\text{g} / \text{g}$ ;  $p < 0.001$ ) ve 52.8 kat ( $47.1 \pm 7.6 \mu\text{g} / \text{g}$ ;  $p < 0.001$ ) arttı. Postoperatif tedavinin arka planına karşı, kolelitiazisli hastaların grup I ve II'deki zonulin konsantrasyonu 3 ay sonra % 30,2 ( $p = 0,062$ ) ve % 19,6 ( $p = 0,790$ ), % 14,0 ( $p = 0,477$ ) ve 31, 6 ay sonra % 4 ( $p = 0,583$ ), 1 yıl sonra % 22,1 ( $p = 0,248$ ) ve % 34,7 ( $p = 0,092$ ), kalprotektin konsantrasyonu % 23,5 ( $p = 0,328$ ) ve % 29,1 ( $p = 0,347$ ) 3 ay sonra 6 ay sonra % 44,7 ( $p = 0,016$ ) ve 3,3 kez ( $p = 0,002$ ), 1 yıl sonra % 30,7 ( $p = 0,075$ ) ve 3,7 kez ( $p = 0,005$ ); laktoferrin konsantrasyonu 2.9 kat ( $p = 0,003$ ) ve 3.0 kat ( $p = 0,005$ ) 3 ay sonra, 3.1 kat ( $p = 0,004$ ) ve 9.5 kat ( $p = 0,002$ ) 6 ay sonra, 1 yıl sonra 3.7 kat. preoperatif sonuçlara göre kez ( $p = 0,003$ ) ve 22,0 def  $p$  ( $p = 0,002$ ) azaldı. Kolelitiazisli hastalarda yüksek AMP konsantrasyonları, özellikle laktoferrin, MC patogenezinde enflamatuvar sürecin aktivasyonunda önemli bir role işaret etmektedir. Geleneksel tedavinin AMP konsantrasyonunu azaltmada daha az etkili olmasına rağmen, hepatoprotektörlerin, kombine enzim preparatlarının, ön ve probiyotiklerin kullanımı sonuçları pozitif yönde etkilemiştir.

### ABSTRACT

Violations of metabolic and detoxification processes in cholelithiasis (GBL) lead to a weakening of the immune system and antimicrobial defense. In this regard, the study of antimicrobial peptides (AMP), especially zonulin, lactoferrin and calprotectin, is of great importance in the pathogenesis of malabsorption observed during gallstone disease. The study monitored the dynamics of changes in AMP in feces before and after surgery in 38 patients with cholelithiasis who were operated on at the Educational-Surgical Clinic of the Azerbaijan Medical University. The control group consisted of 14 practically healthy people of the corresponding age. The concentration of zonulin, calprotectin, and lactoferrin in coprofiltrate was measured by enzyme-linked immunosorbent assay using a kit of reagents from Immun Diagnostic (Germany). After the operation, the patients were divided into two groups according to the treatment regimen. Patients of group I (n = 17) received standard traditional treatment, patients of group II (n = 21), in addition to standard treatment, were prescribed hepatoprotectors, combined enzyme preparations, pre- and probiotics. It was found that in the preoperative period in patients with cholelithiasis, high levels of AMP are detected. In patients of groups I and II, before the operation, the concentration of zonulin was 2.2 times ( $2.06 \pm 0.31 \mu\text{g} / \text{g}$ ;  $p = 0.012$ ) and 91.7% ( $1.77 \pm 0.28 \mu\text{g} / \text{g}$ ; respectively);  $p$  respectively) = 0.011); calprotectin - 5.8 times ( $114.1 \pm 13.7 \text{ mg} / \text{g}$ ;  $p < 0.001$ ) and 5.8 times ( $114.1 \pm 18.0 \text{ mg} / \text{g}$ ;  $p < 0.001$ ); lactoferrin - 60.0 times ( $53.5 \pm 6.1 \mu\text{g} / \text{g}$ ;  $p < 0.001$ ) and 52.8 times ( $47.1 \pm 7.6 \mu\text{g} / \text{g}$ ;  $p < 0.001$ ) were increased compared to

the control group. Against the background of postoperative treatment, the concentration of zonulin in groups I and II of patients with cholelithiasis was 30.2% ( $p = 0.062$ ) and 19.6% ( $p = 0.790$ ) after 3 months, 14.0% ( $p = 0.477$ ) and 31, 4% ( $p = 0.583$ ) after 6 months, 22.1% ( $p = 0.248$ ) and 34.7% ( $p = 0.092$ ) after 1 year, calprotectin concentration 23.5% ( $p = 0.328$ ) and 29.1% ( $p = 0.347$ ) after 3 months, 44.7% ( $p = 0.016$ ) and 3.3 times ( $p = 0.002$ ) after 6 months, then 30.7% ( $p = 0.075$ ) and 3.7 times ( $p = 0.005$ ) after 1 year; concentration of lactoferrin 2.9 times ( $p = 0.003$ ) and 3.0 times ( $p = 0.005$ ) after 3 months, 3.1 times ( $p = 0.004$ ) and 9.5 times ( $p = 0.002$ ) after 6 months, after 1 year 3.7 times. times ( $p = 0.003$ ) and 22.0 dafə ( $p = 0.002$ ) decreased in comparison with the preoperative results.

Elevated concentrations of AMPs, especially lactoferrin, in patients with cholelithiasis indicate an important role in the activation of the inflammatory process in the pathogenesis of MC. Although traditional treatment is less effective in reducing the concentration of AMP, in addition to traditional treatment, the use of hepatoprotectors, combined enzyme preparations, pre- and probiotics led to a convergence of AMP concentrations in the control group and positive dynamics.

ASSESSMENT OF THE IMMUNE SYSTEM IN HYPER-IGD SYNDROME

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Hyper Ig D syndrome is an autosomal recessive pathology. This pathology is caused by a mutation in a gene that expresses the enzyme mevalonate kinase. This gene is located on the long arm of chromosome 12g 24. As a result of mutations in mevalonate kinase, the expression of the MVK enzyme is reduced or absent, which leads to the development of hyper-IgD syndrome. Clinical symptoms appear in the patient at an early age. The patient has a relapse of fever, which lasts 2-7 days. Convulsions occur at intervals of 2-8 weeks, neck lymphadenopathy, petechial rash, abdominal pain, arthralgia, hepatosplenomegaly, ophthalmic symptoms, etc. cause symptoms.

Material and Methods: to identify and correct deficiencies in the immune system in patients with hyper-Ig-D syndrome.

Research methods: general, biochemical, genetic analysis of blood and immunological studies.

Results: leukocytosis in the general blood test, the number of leukocytes on the left, increased ECG, Elevated levels of reactive protein C, elevated levels of cholesterol in biochemical analysis, Increased expression of mevalonic acid in urine, mutation in the V3771 gene. Immunological examination showed an increase in the level of Ig D, the level of Ig G, Ig M is normal, the inflammatory cytokines IL-6, TNF-alpha, IFN-gamma are high.

There is no specific treatment for the disease. Non-steroidal anti-inflammatory drugs and TNF -alpha blockers are used to prevent seizures.

Conclusion: the frequency and severity of a patient's febrile seizures is reduced.

**Keywords:** *immunoglobulin D, mevalonate kinase, lymphadenopathy, fever.*

**THE ROLE OF THE PECULIARITIES OF THE PRENATAL PERIOD IN THE  
DEVELOPMENT OF SMALL BRONCHIAL DISEASES IN CHILDREN**

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The aim of the study: to analyze the peculiarity of the course of the prenatal period in children with bronchial asthma (BA), Chronic bronchiolitis (CB) and bronchopulmonary dysplasia (BPD)

**Materials and Methods:** 112 children with BA, 139 patients with CB and 103 children with BPD were under the investigation. A map-based questionnaire made for each patient. Questionnaire included data relating to the prenatal period too.

**Results of the study:** The results of statistical analysis of the course of pregnancy showed that during pregnancy toxemia occurred in all forms, whereas multiple, the threat of termination, pregnant disease. characteristic of BPD. The threat of interruption of pregnancy met in 74% of cases at CB. Features of the flow of childbirth showed that the BA is characterized by normal childbirth, the rapid labor took place, a long dry period and stimulation of labor. Under BLD, premature births took place in 90% of cases

**Conclusion:** The features of the flow of the prenatal period makes it possible to use it as a differential diagnostic marker of small bronchi diseases in kids



**THE RELATIONSHIP BETWEEN NT PRO BNP AND ANEMIA IN PATIENTS WITH  
CHRONIC KIDNEY DISEASE**

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**ABSTRACT**

In chronic renal failure, anemia sets early and progresses with decreased renal function. Progressive renal failure and anemia are specific cardiovascular risk factors with increasing levels of natriuretic peptides.

**The aim** of this study was to investigate the relationship between anemia and NT - proBNP levels in a group of patients with renal dysfunction.

**Methods:** The study included 50 patients with chronic renal failure in stage II - IV KDIGO. All participants underwent clinical, laboratory and instrumental examination. Hemoglobin, pro -BNP NT levels, and echocardiographic parameters were especially important.

**Results:** Patients with advanced chronic kidney disease (BCR) (stage IV KDIGO) had lower levels of Hb and higher levels of NT - proBNP than those with BCR st. II-III KDIGO. Patients were divided into two groups according to their mean Hb levels: group A, Hb < 10.3 g / dL and group B, Hb ≥ 10.3 g / dL. Patients in group A were significantly older, had higher values of uua and serum creatinine and the level of NT - proBNP was higher compared to patients in group B. Also, the patients in the first group had a higher prevalence of left ventricular hypertrophy, diastolic dysfunction and myocardial ischemia compared to patients in the second group.

**Conclusions:** Elevated NT - proBNP levels in patients with BCR correlate inversely with the degree of anemia in these patients, and with functional and structural changes of the heart.

**Keywords:** *NT-proBNP, anemia, chronic kidney disease.*

GLOBAL CLIMATE CHANGE AND ITS IMPACT ON HUMAN HEALTH

ГЛОБАЛЬНОЕ ИЗМЕНЕНИЕ СОВРЕМЕННОГО КЛИМАТА И ЕГО ВЛИЯНИЕ НА  
ЗДОРОВЬЕ ЧЕЛОВЕКА

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**Abstract**

Man's interference in the natural order of the biosphere leads to anthropogenic changes to the Earth's ecosystems. The anthropogenic impact on the planetary climate leads to its warming by 0.75°C and there will be more in the future. This, in turn, is fraught with catastrophic consequences. The consequences of global warming are unprecedented heat and fires, drought, sea level rise, that have implications not only for the environment but also for the global economy (loss from fires, crop losses, starvation and migration) and social problems. Over the past 20 years, abnormal climatic events occur 4 times more often. The temperature rise has already greatly increased the number of outbreaks and the spread of infectious diseases worldwide.

Anthropogenic changes in ozone also affect human health. The ozone layer is a protective shield against ultraviolet radiation. The emergence of the ozone holes over Antarctica and the Arctic is associated with the use and emission of CFCs and nitrogen oxides into the atmosphere as a result of human activities. Human society is in fact and in earnest facing the threat of ecological crisis and thus a much greater attention needs to be paid for environmental protection.

**Keywords:** *global change, climate, infectious diseases*

**Аннотация**

Вмешательство человека в естественные процессы в биосфере вызывает антропогенные изменения в экосистемах. Антропогенное воздействие на общепланетарный климат выражается потеплением его на 0,75° С и в будущем еще больше. Это в свою очередь чревато катастрофическими последствиями. Следствием глобального потепления является небывалая жара, пожары, засуха, повышение уровня моря, влекущие за собой экономические и социальные проблемы (убытки от пожаров, потери урожая, голод и миграция населения).

За последние 20 лет аномальные климатические явления происходят в 4 раза чаще. Уже сейчас повышение температуры значительно увеличило количество эпидемий и распространение инфекционных болезней во всем мире. Антропогенное изменение озонового слоя тоже влияет на здоровье человека. Озоновый слой является защитным экраном от ультрафиолетового излучения. Появление озоновых дыр над Антарктидой и Арктикой связаны с применением и выбросом в атмосферу фреонов и окислов азота в результате деятельности человека. В настоящее время человечество стоит перед угрозой экологического кризиса и поэтому крайне необходимо более внимательное отношение к этой проблеме для охраны окружающей среды.

**Ключевые слова:** *глобальное изменение, климат, инфекционные болезни*

**PTSD SYMPTOMS AMONG HEALTHCARE WORKERS FACING COVID-19**

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**ABSTRACT**

**Introduction** Winter 2020 will be forever in our minds as the beginning of the COVID-19 pandemic that changed the way we lead our personal and professional lives. Nowhere was this more evident than in the medical practice. As the COVID-19 crisis evolved, there was a growing awareness of the value that this reality had on health care workers. Doctors fighting the pandemic are in extreme conditions.

**The purpose of the work** was the assessment of the psycho-emotional impact that the COVID-19 pandemic had on medical professionals.

**Material and methods.** Centers of psychological assistance were established in many units. These systems were available at the level of the institution and helped to recognize the professional nature of stress.

**Results.** Mental disorders were more pronounced in young women than in men, and nurses were more prone than doctors. Beyond psychological disorders, there was a risk of developing psychiatric disorders, especially the depressive episode (25% of cases). Given the high prevalence of depressive disorders among health care workers outside of any epidemic context, it made sense to anticipate increased incidence after the pandemic and associated complications such as addictions and suicidal behavior.

**Conclusions.** A challenge for mental health professionals was to implement a specific proactive approach to screening health workers. These should be based in particular on strengthening training in psychological issues, relationships and the management of health crisis situations for all health professions. Psychological support for both those in the front line and the population is vital.

**Keywords:** *Mental health, COVID-19, PTSD.*

**INTERDISCIPLINARY APPROACH TO THE PAIN SYNDROME IN MASTICATORY  
MUSCLE DYSFUNCTION**

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**ABSTRACT**

Dysfunctions of the stomatognathic system (myogenous, arthrogenous-myogenous variants) are associated with pain syndrome of varying intensity and extent. The correction of masticatory muscle dysfunctions and pain syndrome largely depends on the etiopathogenesis of the disorders and their identification by appropriate diagnostic methods. The clinical diagnosis of these disorders is not sufficient to identify and differentiate the pathogenetic components of the pain syndrome and does not ensure a satisfactory efficiency in the management of these clinical cases.

The aim of the study: analysis of the components of the pain syndrome from the perspective of the concept of central sensitization based on the application of clinical-neurophysiological methods. Thirty patients with masticatory muscle dysfunctions were enrolled, of which 14 (myogenous dysfunction) and 16 (myogenous-arthrogenous variant). In the study, there were applied: DC/TMD examination protocol, quantitative clinical indices of masticatory muscle disorders, visual analogue scale, Graded Chronic Pain Scale (GCPS), Sensory Hypersensitivity Scale (SHS), Allodynia Symptom Checklist (ASC-12), Trauma History Screen (THS), Kessler Psychological Distress Scale (K10), General Anxiety Disorder (GAD7), Patient Health Questionnaire (PHQ9), evoked sympathetic skin potentials (Neurosoft). The components of central sensitization were studied before and after standardized tests (mastication, maximum voluntary contraction).

We have evaluated the central sensitization indices (pressure pain threshold, pressure tactile threshold, wind-up ratio, vibrotactile stimulation, two-point discrimination test, Widespread Pain Index, Central Sensitization Inventory-9) by a complex approach regarding the disorders in the stomatognathic and extrastomatognathic (fibromyalgia, low back pain, tension headache, overactive bladder) systems.

There were determined the correlations between the clinical manifestations and the indices of central sensitization in the process of formation, extension and chronicity of the pain syndrome in patients with stomatognathic system dysfunctions, which allowed the development of objective criteria for differentiating myogenous and myogenous-arthrogenous clinical variants.

For the first time, we analyzed the correlations of suprasegmental autonomic indices (evoked sympathetic skin potentials, time-frequency spectral analysis of electrodermal activity) with central sensitization indices, according to the clinical variant (myogenous or myogenous-arthrogenous).

Our results have shown that for the diagnosis of myogenous and myogenous-arthrogenous variants of dysfunction, differentiation based on clinical indices is not sufficient, and requires further evaluation. The application of standardized maximum voluntary contraction and mastication tests contributes to identifying latent disorders of the masticatory muscle activity and determining central sensitization components, especially in patients with extrastomatognathic pain disorders. In nearly 40% of patients, central sensitization was mainly determined by the influence of extrastomatognathic pain disorders, which requires an interdisciplinary approach not only in diagnosis but also in treatment.

**Keywords:** *masticatory muscle pain, interdisciplinary diagnosis, psychoautonomic disorders, central sensitization.*

**EARLY MANIFESTATIONS OF AXIAL ARTHROPATHY IN INFLAMMATORY BOWEL DISEASE**

РАННИЕ ПРОЯВЛЕНИЯ АКСИАЛЬНЫХ АРТРОПАТИЙ ПРИ ВОСПАЛИТЕЛЬНЫХ ЗАБОЛЕВАНИЯХ КИШЕЧНИКА

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**INTRODUCTION**

One of the major problems of internal medicine is inflammatory bowel disease (IBD): ulcerative colitis and Crohn's disease. Extraintestinal manifestations are divided into two different pathogenetic groups: immune-mediated states due to the common pathogenetic links, and non-immune-mediated conditions, the occurrence of which is due to metabolic processes that are secondary to bowel disease. The first group includes arthropathies, skin lesions (erythema nodosum, pyoderma gangrenosum), eyes (uveitis, iridocyclitis), primary sclerosing cholangitis; to the second group - gallstone disease, urolithiasis, osteoporosis. According to the data of clinical studies, up to half of patients with IBD suffer from at least one ECP, and in some patients they develop before the onset of intestinal symptoms, which causes additional difficulties in the early diagnosis of the disease.

**Purpose of the study:** To study the features of early manifestations of axial arthropathies in inflammatory bowel diseases in order to improve their early diagnosis.

**Material and methods of research:** The study was carried out in the Department of Rheumatology of the Republican Clinical Hospital "Timofei Moşneaga", Chişinău, Republic of Moldova. A single-center crossover study included 91 patients with IBD: 52 (57.1%) with UC, 39 (42.9%) with BC. There were 47 men (51.6%), women - 44 (48.4%); as well as 50 patients with AS: men - 33 (66%), women - 17 (34%).

**Results of our own research:** One of the characteristic features of IBD is the presence of extraintestinal manifestations. In our group of patients with IBD, more than half had ECP: in 47 (51.6%) patients. The ratio between the groups with CD and UC was comparable - 21 (53.8%) and 26 (50%), respectively. The most common involvement of the musculoskeletal system was in 45 (49.5%) patients. Arthralgias were one of the most common ECPs, occurring in almost one third of IBD patients - 35 (38.5%) patients. The frequency of arthralgias in CD and UC was comparable: 14 (35.9%) in CD, 21 (40.4%) in UC. Damage to the axial skeleton in the form of SpA was present in 26 (28.6%) patients, AS - in 14 (15.4%). The frequency of eye damage was as follows: iridocyclitis - 6 (6.6%) patients, uveitis - 2 (2.2%). All patients with IBD and back pain (n = 84) completed the ASAS IBD Criteria 2009 questionnaire. When assessing each of the IBD criteria in patients with IBD (n = 84), CD (n = 36), UC (n = 48), and back pain, it was found that the onset of back pain before the age of 40 was noted by 63 (75%) patient with IBD: 32 (88.6%) with CD, 31 (64.6%). Gradual onset of back pain was reported by 65 (77.4%) patients with IBD: 25 (69.4%) with CD, 40 (83.3%) with UC. Pain improvement after exercise was present in 53 (63.1%) IBD patients: in CD - 24 (66.7%), in UC - 29 (60.4%). An increase in pain during rest periods was noted in 42 (50%) patients with IBD: 17 (47.2%) with CD, 25 (52.1%) with UC. Back pain at night (with a decrease after awakening) was reported by 52 (61.9%) patients with IBD: 20 (55.6%) with CD and 32 (66.7%) with UC.

**Conclusions:** (1) The following clinical variants of arthropathy were identified in patients with IBD: axial lesion (IBD according to ASAS criteria (2009) in 42.9%, axSpA - in 28.6%, AS - in 15.4%); arthralgia - 38.5%, arthritis - 13.2%. (2) Arthralgias (p <0.05), arthritis (p <0.01), uveitis (p <0.01) are more common in patients with IBD and axial arthropathies. At the same time, the risk of detecting axSpA is higher in the presence of arthritis - OR 10.77 [95% CI 2.26-44.2], p = 0.005, arthralgia - OR

4.12 [95% CI 1.55-10.95],  $p = 0.005$ , inflammatory back pain - OR 8.07 [95% CI 2.80-23.23],  $p = 0.0001$ , uveitis - OR 19.2 [95% CI 2.18-169.13],  $p = 0.008$ . Patients with CD have a higher chance of detecting axSpA compared with patients with UC - OR 2.92 [95% CI 1.14 - 7.48],  $p = 0.025$ . (3) In patients with AS, according to the results of the DISQ gastrointestinal symptom questionnaire, complaints of asthenia prevailed - an average score of 2.12 (moderately pronounced), bloating and abdominal pain (an average score of 1.31 and 1.25, respectively), subfebrile condition (average score 1.08). In this case, the lesion of the gastrointestinal tract was subclinical, since according to the total score, 92% of patients corresponded to remission from the gastrointestinal tract.

**Keywords:** *inflammatory bowel disease, axial spondyloarthritis, extraintestinal manifestations, Crohn's disease, ulcerative colitis.*

### **Введение:**

Одной из серьезных проблем внутренних болезней являются воспалительные заболевания кишечника (ВЗК): язвенный колит и болезнь Крона. Внекишечные проявления делятся на две различные патогенетические группы: иммуноопосредованные состояния, обусловленные общностью патогенетических звеньев, и неиммуноопосредованные состояния, возникновение которых обусловлено метаболическими процессами, которые являются вторичными по отношению к заболеванию кишечника. К первой группе относятся артропатии, поражение кожи (узловатая эритема, гангренозная пиодермия), глаз (увеит, иридоциклит), первичный склерозирующий холангит; ко второй группе - желчнокаменная болезнь, мочекаменная болезнь, остеопороз. По данным проведенных клинических исследований до половины пациентов с ВЗК страдает, по крайней мере, от одного ВКП, а у части пациентов они возникают до появления кишечных симптомов, что вызывает дополнительные сложности в ранней диагностике заболевания.

**Цель исследования:** Изучить особенности ранних проявлений аксиальных артропатий при воспалительных заболеваниях кишечника для совершенствования их ранней диагностики.

**Материал и методы исследования:** Исследование проводилось в отделении Ревматологии Республиканской клинической больницы «Тимофей Мошняга», Кишинев, Республика Молдова. Одноцентровое перекрестное исследование включало 91 пациента с ВЗК: 52 (57,1%) с ЯК, 39 (42,9%) с РМЖ. Мужчин было 47 (51,6%), женщин - 44 (48,4%); а также 50 больных АС: мужчин - 33 (66%), женщин - 17 (34%).

**Результаты собственного исследования:** Одной из характерных особенностей ВЗК является наличие внекишечных проявлений. В нашей группе пациентов с ВЗК более чем у половины встречались ВКП: у 47 (51,6%) пациентов. Соотношение между группами с БК и ЯК было сопоставимо - 21 (53,8%) и 26 (50%) соответственно. Наиболее часто встречалось поражение костно-мышечного аппарата - у 45 (49,5%) пациентов. Артралгии были одним из самых частых ВКП, встречались почти у трети пациентов с ВЗК - 35 (38,5%) пациентов. Частота артралгий при БК и ЯК была сопоставима: 14 (35,9%) при БК, 21 (40,4%) - при ЯК. Поражение аксиального скелета в виде СпА присутствовало у 26 (28,6%) пациентов, АС - у 14 (15,4%). Частота поражения глаз была следующей: иридоциклит - 6 (6,6%) пациентов, увеит - 2 (2,2%). Все пациенты с ВЗК и болью в спине ( $n=84$ ) заполнили опросник «Критерии ВБС ASAS, 2009 года». При оценке каждого из критериев ВБС у пациентов с ВЗК ( $n=84$ ), БК ( $n=36$ ), ЯК ( $n=48$ ) и болью в спине было выявлено, что начало болей в спине до 40 лет отмечали 63 (75%) пациента с ВЗК: 32 (88,6%) с БК, 31 (64,6%). О постепенном начале болей в спине сообщили 65 (77,4%) пациентов с ВЗК: 25 (69,4%) с БК, 40 (83,3%) с ЯК. Улучшение болей после выполнения физических упражнений присутствовало у 53 (63,1%) пациентов ВЗК: при БК - 24 (66,7%), при ЯК - 29 (60,4%). Усиление болей в периоды покоя отмечали 42 (50%) пациента с ВЗК: 17 (47,2%) с БК, 25 (52,1%) с ЯК. О наличии боли в спине в ночное время (с уменьшением после пробуждения) сообщало 52 (61,9%) пациента с ВЗК: 20 (55,6%) с БК и 32 (66,7%) с ЯК.

**ВЫВОДЫ:** (1) У пациентов с ВЗК были выделены следующие клинические варианты артропатий: аксиальное поражение (ВБС согласно критериям ASAS (2009) у 42,9%, аксСпА - у 28,6%, АС - у 15,4%); артралгии - 38,5%, артрит - 13,2%. (2) У пациентов с ВЗК и аксиальными артропатиями чаще встречаются артралгии ( $p<0,05$ ), артрит ( $p<0,01$ ), увеит ( $p<0,01$ ). При этом риск выявления аксСпА выше при наличии артрита - ОШ 10,77 [95%

ДИ 2,26-44,2],  $p=0,005$ , артралгий - ОШ 4,12 [95% ДИ 1,55-10,95],  $p=0,005$ , воспалительной боли в спине – ОШ 8,07 [95% ДИ 2,80-23,23],  $p=0,0001$ , увеита – ОШ 19,2 [95% ДИ 2,18-169,13],  $p=0,008$ . Пациенты с БК имеют более высокий шанс выявления аксСпА по сравнению с пациентами с ЯК – ОШ 2,92 [95% ДИ 1,14 – 7,48],  $p=0,025$ . (3)У пациентов с АС по результатам опросника по выявлению гастроинтестинальных симптомов «DISQ», преобладали жалобы на астенизацию – средний балл 2,12 (умеренно выражен), вздутие живота и боли в животе (средний балл 1,31 и 1,25 соответственно), субфебрилитет (средний балл 1,08). При этом поражение желудочно-кишечного тракта протекало субклинически, поскольку согласно суммарному баллу 92% пациентов соответствовали ремиссии со стороны желудочно-кишечного тракта.

**Ключевые слова:** *воспалительные заболевания кишечника, аксиальный спондилоартрит, внекишечные проявления, болезнь Крона, язвенный колит.*

INCREASING OF QUANTITY OF DISINFECTANTS AT THE ENVIRONMENT

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**ABSTRACT**

*As a result of this investigation, the main conclusion done is that the quantity of disinfectants increases after the World Coronavirus pandemy. The sources of this chemicals are illegal landfills, dumping waste and household waste water canals, result of the living process and anti-pandemic measures of the local population. Feeding streams bring contamination into big rivers and decrease population of some fish species as Brown trout fish (*Salmo trutta fario*). This specie disappears in water of Banshtitsa River, contaminated with Cyanuric acid CYS. It is seen that in the past 12 years concentration of the cyanuric acid into the water of Banshtitsa River, Bulgaria, respecive all melamine derivates, result of contamination of the water mainly with disinfectants and washing materials varried between 5 and 14 mg/l. But the last year its concentration increased 2 to 4 times. Respectively the allergies during last year 2020-2021 increased about 4-5 times. Contamination excieeds almost 3 times permisable lelel of 8 mg/l.*



**HOW THE SYNTHESIS TEMPERATURE IN THE WET ROUTE INFLUENCES THE CRYSTALLITE SIZE AND LATTICES PARAMETERS OF THE MONETITE, USING CHICKEN EGG SHELL AS A CALCIUM SOURCE**

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The monetite ( $\text{Ca}(\text{HPO}_4)$ ) with Ca / P ratio = 1.0, is a calcium orthophosphate, by many authors considered from the hydroxyapatites' family, has applications mainly as bioceramics. Among the various synthesis routes, the wet neutralization route was used, at temperatures of 40 and 80 °C, which are considered extremely low in comparison with the techniques used repeatedly, with rigorous pH control, having as calcium precursor from chicken eggshells, and orthophosphoric acid as a phosphorus source. The products were filtered, washed and dried in an oven at 100 °C for 12 h. The samples were analyzed qualitatively and quantitatively by the Rietveld Refinement through XRD data, qualitatively by Raman and morphologically by SEM. From these data it was evaluated how the synthesis temperature can generate changes in the lattice parameters and crystallite size, with the sample synthesized at 40 °C has the crystallite size of 89.4 nm while at 80 °C it is 148 nm.

DECARBONISATION VIA HYDROGEN ENERGY

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**ABSTRACT**

The problems of energy supply and demand over the last decades have in been the focus of attention of politicians, industrialists and experts across Europe. Active debates, discussions and developments highlight the full range of issues that the European Union (EU) is facing. The roadmap of the European Commission aims: for the continent to become with low-carbon character by 2050, recommending a 25% reduction in emissions by 2020. By 2050, the EU aims to reduce emissions by 80-95% from 1990 levels. Renewable energy implies energy from renewable non-renewable sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydroelectric power, biomass, landfill gas, gas from wastewater treatment plants and other sources. The produced energy is clean and reduces the dependence on imports of liquid fuels and natural gas, stimulating disruptive innovations generation, job creation and employment. Hydrogen and fuel cell technologies have been identified as key for the transition to a carbon-free economy and funding for their deployment is growing with a steady rate. One of the pillars supporting the transition to a low-carbon economy is the further development and market penetration of hydrogen and fuel cell technologies and energy storage innovation with special focus on the most viable situation-based applications. In order to achieve a sustainable hydrogen economy and replace fossil fuels technical challenges have to be tackled and overcome in different areas: production and generation, storage and to electrical energy and heat. One of the most viable and competitive paths is to produce hydrogen from renewable energy sources (RES).

**Keywords:** *Hydrogen economy, renewable energy sources, carbon free economy*

**IOT ENABLED FOOD CALORIE ESTIMATION USING DEEP LEARNING****M.RAJALAKSHMI****B. BALAJI****B. INDUMALINI****S. NIDARSHNA****D. OVIYA**

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**ABSTRACT**

Maintaining a healthy diet is a significant goal for many people. As indicated by WHO practically 20% of deaths overall are inferable from an unhealthy diet. Because of the improvement in individuals' ways of life, obesity rates are increasing at an alarming speed and this is often reflective of the risk in individual's wellbeing. People need to control their everyday calorie consumption by eating more healthy foods, which is the most elementary method to keep away from obesity. The main aim is to track the amount of food calories consumed. This tracking process seems to be difficult as it requires the people to keep a food diary and to do messy calculations to estimate the amount of calories consumed in every food item. For solid food items, deep learning approach is used whereas for fluid foods RFID technology is incorporated. Computer vision has been introduced to estimate calories from food images. But current food image datasets don't contain volume and mass records of liquid foods, which leads to an incomplete calorie estimation. In addition, the RFID reader reads the nutritional information from an RFID tag in the serving plate. With the nutritional information of each liquid food and the amount of the food that is added to the plate, the nutritional intake of a user can be calculated. To recognize what is on the plate, the given solid food image is instance - segmented into different food categories. To estimate the calorie of solid foods in the dataset, a deep learning method using Mask RCNN is used. Mask R-CNN is developed based on Faster R-CNN, which is a region-based Convolutional Neural Network. After the detection of food samples, the volume is determined utilizing the pixel esteems and equation. With this the nutrition information now available, the total calorie intake is evaluated and appropriate food is suggested based on the individual's BMI value. The goal is to give a more profitable strategy for assessing calories. Thus the proposed approach using Deep Learning reduces the burden of data processing and the deployment of RFID sensors estimates the nutrition intake efficiently. This embodiment is especially important in medical facilities/restaurants and old age locations, where accurate and fast nutrition tracking can be very important for all the people who are receiving the food.

**Keywords:** *Calorie Estimation, Image processing, Image segmentation, Mask RCNN, RFID, Arduino*

**CLEAN ROOM FABRICATION OF  $\mu$ LEDS DEDICATED TO LIGHT FIDELITY TRANSMISSION LINK**

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The recent years have announced the emergence of novel photonic technologies based on III-nitrides semiconductors. Gathering the progress in materials maturity and the advance in manufacturing process, Solid-State Lighting based upon GaN-based light-emitting diodes (LEDs) has emerged as one the dominant technology for indoor/outdoor lighting as in hospital and transportation. In addition, the opportunity to apply LED for indoor/outdoor communication is a research innovation for the community. This well-known concept is identified light fidelity (LiFi), as a wireless technology that uses optical light to transmit informations more fast and reliable data transmission than conventional Wi-Fi. Higher Frequency results from smaller dimensions for the devices. In this activity, we have developed the proper design and the clean room fabrication of micro sized visible LEDs based on InGaN/GaN multiple quantum wells (MQWs) grown on sapphire substrates. A PIN configuration is selected for the design. Global experiments have been conducted by reducing the LED dimension (from 300 to 5 $\mu$ m) to lower the capacitance, the internal electric field of InGaN MQWs and therefore to increase the LED's emission efficiency. Proper etching and metallization optimization processes have been developed to create large or small mesa that allows a controlled parasite capacitance for the global configuration [1-2]. For RF analysis, coplanar transmission lines have been designed and fabricated on top of LEDs samples (sample configuration detailed in fig.1).

Optical and electrical characterizations of the fabricated samples have performed to extract the cut-off frequency. Measurements are performed under reverse bias both in the dark and under illumination by a laser source. Noise measurement technique is identified as the most convenient technique to carefully measure the dynamic behavior. Experimental results have demonstrated that a frequency bandwidth of respectively 300MHz and 1.5GHz could be attain for a 100 $\mu$ m and 25 $\mu$ m size structures (fig.1). GaN-based technology is for microwave optoelectronics as a major photonic concept allowing higher power densities at higher operating frequencies [3-5].

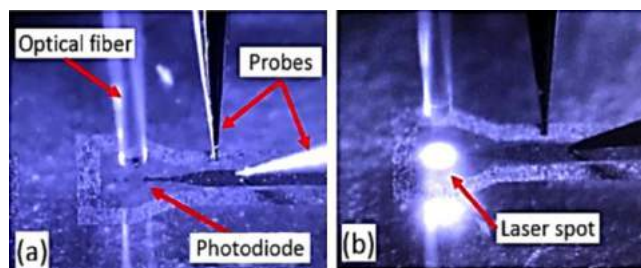


Fig1: Configuration of PIN structure using RF coplanar transmission lines  
(a) for dark measurement (b) under illumination

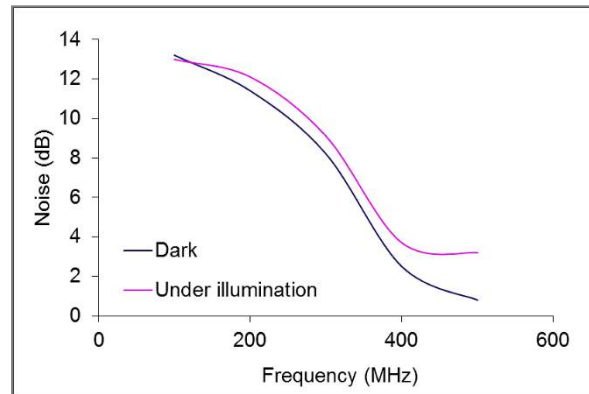


Fig 2: Noise measurement for  $100 \times 100 \mu\text{m}^2$  photodiode

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**PRECISE IMAGE ROTATION ESTIMATION USING THE MODIFIED MUTLI-  
RESOLUTION WAVELET TRANSFORM**

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**ABSTRACT**

Precise rotation estimation is one of the main challenges in image and video processing applications. It can be used for finding the rotation angle between the frames of a video or doing an accurate registration. Rotation estimation techniques are also useful in industrial applications where a camera is used for doing alignments. In this paper, we propose a very accurate rotation estimation technique, which is composed of two main steps. In the first step a coarse approximation of the rotation angle is performed by using a Fourier based method for an one dimensional correlation calculation. The suggestion made in this step is generalizing the 1D correlation method for any angle in 360 degrees. Regarding the change made in this method, we call it the modified 1D correlation procedure, and we use it for estimating the rotation angle with accuracy of 1 degree. The second step which contains the main innovations proposed in this paper is a fine estimation of rotation angle. This step is based on multi-resolution wavelet transform and using the gradient. The combination of two steps helps us to have an extremely accurate approximation of any desired angle with estimation error less than 0.02 degrees.

**Keywords:** Rotation estimation; One dimensional correlation, Multi-Resolution wavelet transform; Gradient based rotation estimation

**PREDICTION OF LOAN SCORING STRATEGIES USING DEEP LEARNING  
ALGORITHM FOR BANKING SYSTEM**

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**ABSTRACT**

There has been a tremendous growth in banking and finance sector. With this growth, the ease to access and sanction loan has increased because many people are applying for loans. The problem here is that bank has only limited number of resources and capital, which the bank can distribute among the customers. The whole task of categorizing to whom the bank should sanction loan and to whom it should not has become a difficult task for the bankers. Generally, bank undergoes a rigorous procedure for verifying the customer to sanction loan. This procedure may take a week's time or two. The drawback here is that the customer needs to wait for two whole weeks to know whether he/she is deserving or not. In this paper, we have reduced the risking factor of banks behind finding the appropriate person for loan approval by the bank. We even reduce the time of loan approval analysis. We first use data mining techniques to analyze previous records to which the bank has already sanctioned loan based on the analysis made out of these records we train the deep learning model. The new data is treated as testing data and the output of the customer is calculated accordingly. Our paper prediction of loan scoring strategies using deep learning classifier for banking system provide a solution for the bank employees as well as for the applicant who is seeking for a loan. In this paper, we provide a simple and fast way to the bank employees to choose the deserving applicant from the number of applications. The proposed approach can calculate the values of every parameter taking part in loan scoring strategies on new test data same parameter are processed with respect to their related values. We also used time constraint which can be set for all loan application to check whether the loan can be approved or not for a person. In the current situation the success and failure of banking system directly depends the analysis of credit risk. If the bank could not collect the amount back from the loan person properly this will lead a loss to bank.

**Keywords:** Deep Learning Algorithm, Data Mining, Training & Testing, Loan Approval Analysis.

**SECURE ONLINE PAYMENT SYSTEM****Rahul DESAI***Army Institute of Technology, Dept. of IT***ABSTRACT**

Over the last few years the number of small businesses payments, filling invoices and selling online has skyrocketed, along with the number of online payment providers. Typically, payment processing system providers use software as a service (SaaS) model and form single payment gateways for their clients for multiple payment methods. When users goes online to pay rent, dues, charges or any donation, after selecting to pay by credit or debit card, the user passes on information such as name, credit or debit card details, and billing address, and then submits payment.

Online payment refers to money that is exchanged electronically. Typically, this involves use of computer networks, the internet and digital stored value systems. When you collect a payment over the internet, you are accepting an online payment and you are sharing your confidential card details with company. The paper presents an approach for providing only the limited information that is necessary for fund transfer thereby shielding customer data and increasing customer confidence and preventing identity theft. So we are restricting the merchant to misuse cardholders data and make fraud transactions. Users transaction patterns are calculated at run time using HMM techniques. If someone does fraud by using user's information in that case alert will be generated and transaction will not be complete. The approach uses combined application of Steganography, Cryptography and HMM for this purpose.

Cryptography is a process of transforming original information into a format such that it is only read by the desired recipient. It is used to protect information from other people for security purpose. Visual cryptography is a method which is used to encrypt information in any format like text, image, led display such that decryption is done by human eye. It does not require any key for decryption. Visual cryptography is mainly of two types segment based visual cryptography, pixel based visual cryptography. Initially this method was developed only for monochrome images then it was upgraded to grey level and then colored images. As it does not require any key to decrypt that is why this method is unbreakable. This method is useful in vast applications which handle high value assets. It can replace the second factor that is token or key in multifactor authentication system. It can be used in online shopping sites, online banking sites, and government sites.

**Keywords:** *Steganography, Cryptography, SaaS Model*



**KEYSTROKE DYNAMICS AND VARIOUS AUTHENTICATION APPROACHES**

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**ABSTRACT**

Securing the sensitive data and computer systems by allowing ease access to authenticated users and withstanding the attacks of imposters is one of the major challenges in the field of computer security. To protect data we use password but these passwords can be easily cracked by the hackers. For better security, measures like retina scan are used which is a form of physical biometric but these measures are very costly to implement. Therefore we propose an authentication system using keystroke typing behavior.

Keystroke Dynamics is one of the famous and inexpensive behavioral bio- metric technologies, which identifies the authenticity of a user when the user is working via a keyboard. Certain information like the time when keys on the keyboard are pressed, keys on the keyboard are lifted, and keystrokes timing from one keypad to another, etc. can be gathered to built the authentication system. During the verification phase user keystroke features are captured, processed in order to render an authentication decision based on the outcome of a classification process of the newly presented feature to the pre stored. It would be necessary for the user to type his/her name or password a number of times in order for the system to be able to extract the relevant features that uniquely represent the user.

Then from these gathered data the required features are extracted and that is in turn given to the classifier which classifies the data. The same process is repeated while testing and if the class matches the one in the database created while training then the user is authenticated otherwise not. For testing and training various metrics such as dwell time and flight time can be used and for evaluation measures like False Acceptance Rate (FAR), False Rejection Rate (FRR) and Equal Error Rate(EER) can be used. In this way we will come up with an authentication system which would be robust than the usual login and password authentication system.

**Keywords:** Authentication, Keystroke dynamics, Biometric

**A SMART APPLICATION BASED ON MACHINE LEARNING FOR CERVICAL CANCER  
DIAGNOSIS USING CLINICAL FEATURES**

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**ABSTRACT**

Currently, the application of machine learning algorithms has become very widespread and crucial in different domains. The enormous amount of data collected leads the community of scientists to mine these data and extract various results in order to improve the efficiency and the effectiveness of different services. In fact, healthcare is considered among the most popular domains in which machine learning algorithms are applied recently. For instance, these algorithms are applied to predict liver disease, heart disease, breast cancer, cervical cancer, lung disease, etc. These techniques are very effective in predicting the presence of the above mentioned diseases. Moreover, machine learning methods are used to enhance the precision of the approach, reduce diagnostic errors, and afford best quality services. To sum up, the main goal of our study is identifying the potential features showing that the patient has cervical cancer as well as predicting the presence of this illness.

**Keywords:** *Supervised Machine Learning; Cervical Cancer; Feature Selection; balancing Data; Decision tree.*

**AFGANİSTAN HALKINA VE EKONOMİSİNE KORONA PANDEMİSİNİN ETKİLERİ VE OLUMSUZ SONUÇLARI**

EFFECTS AND NEGATIVE RESULTS OF THE CORONAPANDEMIS ON THE PEOPLE AND ECONOMY OF AFGHANISTAN

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**ÖZET**

2020 yılı başından itibaren tüm dünyayı etkisi altına alan ve Covid-19 olarak adlandırılan Korona Virüsü Pandemisi, kriz öncesinde de sosyo-ekonomik, sağlık, eğitim, güvenlik vb. sorunlarla karşı karşıya bulunan Afganistan'ı derinden etkilemektedir.

Bu olumsuz etki günden güne artarak devam etmektedir. Her ne kadar Afganistan'ın güvenlik problemleri ve devletin otorite boşluğundan kaynaklanan zafiyetten dolayı halen bu salgınla ilgili gerçek rakamlara ulaşmak mümkün görülüyorsa da ülkenin Sağlık Bakanlığı ve uluslararası kuruluşlardan elde edilen verilere göre virüse yakalanarak yaşamını kaybedenlerin sayısı korkunç rakamlara ulaşmıştır. Öte yandan 40 yılı aşkın bir süredir yabancı istilalara maruz kalıp iç savaşlara sahne olan bu ülke, tüm devlet aygıtlarında olduğu gibi sağlık sisteminin çöküşüyle çok zor bir süreçten geçmektedir. Pandemi öncesinde de koruma hekimliği ve sosyal güvenlik şemsiyesinin yetersizliğine ekonominin sorunları da eklendiğinde birçok Afgan vatandaşı temel gıdalara, ilaç ve içme suyuna ulaşmakta zorlanmaktadır. Var olan derin yoksulluğu, üretim yetersizliği ve sağlık sisteminin çökmesi sonucunda devletin değil ücra köylere, kasabalarda, büyükşehirlerde bile temel sağlık hizmetlerini sunmakta ve insanların günlük ihtiyaçlarını karşılamakta tamamen yetersiz kaldığı görülmektedir. Gelen haberlere bakıldığında şeffaflığın bulunmadığı, yolsuzluğun yaygın olarak devam ettiği, uluslararası yardımların önemli kısmının halka ulaşmadığı anlaşılırken, bu pandemi sürecinde dahi devletin vatandaşların ekonomik yönden desteklenmesi yönünden herhangi bir uygulaması bulunmadığına şahit olmaktayız.

Bu araştırmada Afganistan hükümet yetkilileri, uluslararası kuruluşlar tarafından verilen bilgiler ve raporlar doğrultusunda Afganistan'da pandemi sürecinde yaşananlar, önümüzdeki süreçte ülkenin karşılaşılabileceği ekonomik ve dolayısıyla sosyal olaylar incelenmiştir. Ayrıca bu çalışmada devletin ve ülkeyi işgal eden yabancı sömürgecilerin yanı sıra ülkenin güvenliğini tehdit altında bulandıran terör örgütlerinin eylem ve etkileri değerlendirilmiştir.

**Anahtar Kelimeler:** Covid19, Afganistan Terör Örgütleri, Taliban, Dünya Sağlık Örgütü, Pandemi, NATO

**ABSTRACT**

The Corona Virus Pandemic, also known as the COVID – 19, which gripped the entire world from the beginning of 2020, has been hitting Afghanistan, which had already been facing issues such as the socio – economic, health, educations and safety related ones in the pre-pandemic period, very hard.

This negative impact continues to this day in a progressive manner. While it is not possible to access to actual figures regarding this pandemic due to the general weakness, resulting from the security issues of Afghanistan and from the gap of state authority, according to the numbers, obtained from the Afghani Ministry of Health and from the international institutions; the number of people who were contracted to the virus and perished in this regard reached to biblical proportions. On the other hand, this country, which has lived through foreign invasions and experienced civil wars for over 40 years, with the collapse of the health system just like any other state institutions, has been going through a really rough patch. Due to the insufficiency in the practice of family physician and in the coverage of the social security in addition to the economic problems, all of which had been present in the pre-pandemic period, many Afghani citizens are having real challenges in accessing to main foodstuff, medicine and drinkable water. As the result of the deep poverty, insufficiency in production and the collapse of the health system, it became apparent that the state is utterly incapable of providing basic health related services and meeting the daily needs of the people even in towns and metropolitan cities let alone the remote villages. When the incoming news from the region is studied, it is understood that

the transparency is virtually non-existent, the poverty runs rampant and the majority of the international aid never reaches to the public as we further witness that the state offered no practice in terms of supporting its citizens financially even during the pandemic.

In this study, in line with the information and reports, provided by the Afghani State and the international institutions, the experiences that Afghanistan has been living through this pandemic as well as the economic and therefore social events that the country shall face in the upcoming period have been analyzed. Furthermore, in this work, the actions and the impact of the foreign imperialists that invaded the country in addition to the state and the terrorist organizations, which pose a great threat against the security of this nation, were discussed.

**Keywords:** COVID – 19, Afghanistan, Terrorist Organizations, Taliban, World Health organization, Pandemic, NATO.

**К ВОПРОСУ СОТРУДНИЧЕСТВА АЗЕРБАЙДЖАНА И РОССИИ В  
МЕЖДУНАРОДНЫХ ЭНЕРГЕТИЧЕСКИХ ПРОЕКТАХ НА КАСПИИ****ON THE ISSUE OF COLLABORATION BETWEEN AZERBAIJAN AND RUSSIA IN  
INTERNATIONAL ENERGY PROJECTS ON THE CASPIAN****Arastun MEHDIYEV***Doctor of Philosophy in History, Associate professor Azerbaijan State Pedagogical University  
ORCID : 0000-0002-3652-0548***РЕЗЮМЕ**

Доклад посвящен изучению вопросов азербайджано-российского сотрудничества в международных энергетических проектах на Каспии. Отмечается, что российские компании являются участниками ряда крупных нефтегазовых соглашений в Азербайджане с первых лет реализации совместных проектов с иностранными инвесторами. «ЛУКОЙЛ» был среди соучредителей первого консорциума по проекту «Контракта века» в 1994 году. Несмотря на то, что, продав в 2002 году свою долю он вышел из этого соглашения, сегодня продолжает совместную деятельность в другом крупном контракте по разработке газоконденсатного месторождения «Шах-Дениз». В то же время еще одна российская компания - «РуссНефть» ведет успешное сотрудничество с SOCAR на нефтяных месторождениях на суше.

Рассмотрен также вопрос разработки и осуществления транспортировки каспийской нефти по северному трубопроводу Баку-Новороссийск. Выбор маршрута и строительство экспортного нефтепровода с месторождений азербайджанского сектора Каспийского моря имело стратегическое значение для стран региона. Поэтому решение Азербайджана о транзите нефти по территории России было направлено не только на защиту общих экономических интересов, а также на сохранение добрососедских и дружественных отношений. Начиная с 1997 года азербайджанская нефть по этому маршруту доставляется на мировые рынки через Черное море. Подчеркивается, что сотрудничество в энергетической сфере способствует развитию экономических и политических связей между двумя странами. Тесное взаимодействие создало более благоприятные условия для урегулирования спорного в течение длительного периода вопроса правового статуса Каспийского моря. После долгих и напряженных обсуждений, наконец, 12 августа 2018 года прикаспийские государства подписали «Конвенцию о правовом статусе Каспийского моря». А это решение открывает новые перспективы для расширения плодотворных взаимоотношений не только в экономической, но и в политической и гуманитарной сферах.

**Ключевые слова:** энергетические проекты на Каспии, SOCAR-«ЛУКОЙЛ», трубопровод Баку-Новороссийск, северный экспортный нефтепровод, «РуссНефть» в Азербайджане.

**ABSTRACT**

The report is devoted to the examination of the issues of Azerbaijani-Russian cooperation in international energy projects on the Caspian. It is noted that Russian companies have been participants in a number of major oil and gas agreements in Azerbaijan from the early years of implementation of joint projects with foreign investors. “LUKOIL” was among the co-founders of the first consortium within “the Contract of the Century” project in 1994. Even though having sold its share in 2002, the company renounced the agreement, today “LUKOIL” continues joint activities in another large contract in the exploration of the “Shah Deniz” gas condensate field. At the same time, another Russian company, “RussNeft”, is successfully collaborating with SOCAR in onshore oil fields.

In the report it is also considered the issue of development and implementation of Caspian oil transportation through the northern pipeline Baku-Novorossiysk. From 1997 onwards, Azerbaijani oil has been delivered via this route to the world markets through the Black Sea. It is emphasized that cooperation in the energy sector contributes to the development of economic and political ties between the two countries. Close interaction has created more favorable conditions for the settlement of the

disputed for a long period issue of the Caspian Sea legal status. After long and arduous discussions, eventually, on August 12, 2018, the Caspian states signed the "Convention on the Legal Status of the Caspian Sea." And this decision creates new prospects for broadening the fruitful relationships.

**Keywords:** *energy projects on the Caspian, SOCAR – “LUKOIL”, Baku-Novorossiysk pipeline, northern export pipeline, “RussNeft” in Azerbaijan*

**SAĞLIK HİZMETLERİ MESLEK YÜKSEKOKULU ÖĞRENCİLERİNDE METABOLİK SENDROM RİSK FAKTÖRLERİNDEN OBEZİTE VE HİPERTANSİYON SIKLIĞININ DEĞERLENDİRİLMESİ**

ASSESSMENT OF OBESITY AND HYPERTENSION CONSTANT FROM METABOLIC SYNDROME RISK FACTORS IN VOCATIONAL SCHOOL OF HEALTH SERVICES

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**ÖZET**

**Amaç:** Bu çalışmada, Sağlık Hizmetleri Meslek Yüksekokulu öğrencilerinin metabolik sendrom risk faktörlerinden obezite ve hipertansiyon sıklığının değerlendirilmesi amaçlandı.

**Gereç ve Yöntem:** Tanımlayıcı ve kesitsel tipteki araştırma, Manisa Celal Bayar Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu öğrencileri ile yapıldı. Örneklem seçimine gidilmeyip araştırmaya katılmayı kabul eden ve veri toplama zamanında okulda bulunan 205 öğrenci ile araştırma yürütüldü. Araştırmada veriler, sosyodemografik soru formu ile toplanarak öğrencilerin bel çevresi ve kan basıncı ölçümleri yapıldı. Araştırma verileri bilgisayar ortamında değerlendirildi.

**Bulgular:** Araştırmaya katılan öğrencilerin yaş ortalaması 20.4±3.23 olup, % 73,2'si kız öğrencilerdi. Öğrencilerin %51,2'si 2.sınıf, %42'si İlk ve Acil Yardım bölümündendi. Öğrencilerin %64,9'u sağlık durumunu iyi olarak ifade etti. Katılan öğrencilerin % 11,7'sinin sistolik kan basıncı 130 mmHg ve üzeri, %20'sinin beden kitle indekslerinin 25-29,9 (fazla kilolu) olduğu ve %21'nin daha önce diyet uyguladığı belirlendi.

**Sonuç:** Genç yetişkin sağlığı açısından obezite ve hipertansiyon değerlendirilmeleri gerekmektedir. Kardiyovasküler mortalite ve morbitide de önemli etkileri bulunan metabolik sendrom açısından öğrencilerin bilgilendirilmesi gerektiği düşünülmektedir.

**Anahtar Kelimeler:** Metabolik sendrom, hipertansiyon, obezite

**ABSTRACT**

**Aim:** In this study, it was aimed to evaluate the metabolic syndrome risk factors of obesity and hypertension frequency of Health Service Vocational School students.

**Materials and Methods:** This study which is descriptive and cross sectional was conducted with Manisa Celal Bayar University Health Services Vocational School students. A survey was conducted with 205 students in the school at the time of data collection who accepted to participate in the survey without going through sample selection. The data were collected in the study with sociodemographic question form, and measurements of the waist circumference and blood pressure of the students were made. The research data were evaluated in the computer environment.

**Results:** The average age of the participants was 20.4 ± 3.23 and 73.2% were female students. 51.2% of the students were in the 2nd grade, and 42% were in the First and Emergency Aid section. 64.9% of the students expressed their health condition as good. It was determined that 11.7% of the participating students had a systolic blood pressure of 130 mmHg and above, 20% had body mass indexes of 25-29.9 (overweight), and 21% had previously applied diet.

**Conclusion:** Obesity and hypertension need to be assessed for young adult health. It is thought that students should be informed about the metabolic syndrome which has important effects on cardiovascular mortality and morbidity.

**Key words:** *Metabolic syndrome, hypertension, obesity*

**OCTAHEDRON KÜMELERİN TOPOLOJİK YAPILARA UYGULANMASI  
APPLICATIN OF OCTAHEDRON SETS TO TOPOLOGICAL STRUCTURES****Fatma KAHRİMAN***Amasya Üniversitesi, Science Faculty Department of Mathematics, İpekköy, Amasya, Turkey,**ORCID: ID/0000-0001-5754-6846***Asst. Prof. Güzide ŞENEL***Amasya Üniversitesi, Science Faculty, Department of Mathematics, İpekköy, Amasya, Turkey,**ORCID: ID/0000-0003-4052-2631***ABSTRACT**

Theories put forward to deal with uncertainty in mathematics and in all branches of mathematics have always attracted attention. He is a scientist named Zadeh who made the first studies on this subject and his studies on fuzzy sets have been accepted and developed all over the world. Following this theory, Pawlak (1982), Atanassov (1983), Atanassov and Gargov (1989), Gau and Buchrer (1993), Coker (1996), Smarandache (1998) and Molodtsov (1999). They introduced the concepts of sets, heuristic fuzzy sets, interval-valued heuristic fuzzy sets, indeterminate sets, heuristic sets, neutrophical sets, and soft sets and presented the applications of these set theories. To provide more information on uncertainty in the continuation of these scientific studies, J. Kim et al. introduced the concept of octahedron cluster consisting of range valued fuzzy sets, intuitive fuzzy sets and fuzzy set components. Applications of this cluster concept have also been made. One of these applications is the Application of Octahedron Clusters to Topological Structures. In this study, general information about the applications of Octahedron Clusters to Topological Structures will be given. A curve, a surface, a family of curves or a set of functions can be topological spaces. Topological space is a family of clusters that provide certain properties, to say the least. Since the topology can be placed in any two sets, after the symbols of the theory of sets, definitions and topological structure are defined, the basic definitions and theorems of these structures will be applied to octahedron sets. The concepts and some properties of two octahedron clusters will be studied and some examples will be given. Studies done so far on the Application of Octahedron Clusters to Topological Structures will be compiled.

**Keywords:** Octahedron cluster, Internal (external) octahedron cluster, topological structure, topological space

**ÖZET**

Matematikte ve matematikle ilgili tüm bilim dallarında belirsizlikle başa çıkmak için ortaya atılan teoriler her zaman ilgi görmüştür. Bu konuda ilk çalışmaları yapan Zadeh adlı bir bilim insanıdır ve bulanık kümeler üzerine yaptığı çalışmaları tüm dünyada kabul görmüş ve geliştirilmiştir. Bu teoriyi takiben sırasıyla Pawlak (1982), Atanassov (1983), Atanassov ve Gargov (1989), Gau ve Buchrer (1993), Coker (1996), Smarandache (1998) ve Molodtsov (1999). Kümeler, sezgisel bulanık kümeler, aralık değerli sezgisel bulanık kümeler, belirsiz kümeler, sezgisel kümeler, nötronofik kümeler ve esnek kümeler kavramlarını tanıttılar ve bu küme teorilerinin uygulamalarını sundular. Bu bilimsel çalışmaların devamında belirsizlik hakkında daha fazla bilgi sağlamak için J. Kim ve ark. aralık değerli bulanık kümeler, sezgisel bulanık kümeler ve bulanık küme bileşenlerinden oluşan oktahedron kümesi kavramını tanıttı. Bu küme konseptinin uygulamaları da yapılmıştır. Bu uygulamalardan biri, Oktahedron Kümelerinin Topolojik Yapılara Uygulanmasıdır. Bu çalışmada, Oktahedron Kümelerinin Topolojik Yapılara uygulamaları hakkında genel bir bilgi verilecektir. Bir eğri, bir yüzey, bir eğriler ailesi veya bir fonksiyon kümesi birer topolojik uzay olabilirler. Topolojik uzay en kaba tabirle belirli özellikleri sağlayan kümeler ailesidir. Topoloji verilen herhangi iki kümeye konulabildiğinden kümeler teorisi simgeleri, tanımları ve topolojik yapı tanımlandıktan sonra bu yapıların temel tanım ve teoremleri Oktahedron kümelere uygulaması yapılacaktır. İki oktahedron kümesinin iç dış kavramlarını, bazı özellikleri incelenecektir ve bazı örnekler verilecektir. Bugüne kadar Oktahedron Kümelerinin Topolojik Yapılara Uygulanması konusunda yapılan çalışmalar derlenecektir.

**Anahtar kelimeler:** Oktahedron küme, Dahili (harici) oktahedron küme, Topolojik yapı, topolojik uzay.



**THE EFFECT OF PODCASTS AND VODCASTS AMONG MOTIVATED EFL LEARNERS  
OF ENGLISH: SPEAKING SKILLS AT DIFFERENT LEVELS**

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**ABSTRACT**

These days, technology is an inseparable part of our lives. Podcasts are a kind of technology that help EFL learners learn better. In traditional classrooms, teachers didn't pay much attention to the learners' speaking skill. Few studies have been conducted in this field. To this end, 250 intermediate and advanced learners aged 18- 35 who were studying English as a foreign language in Ayandegera institute in the summer of 2020 were asked to answer the items of two questionnaires. Out of these 250 learners, 196 (about 78%) were recognized as motivated. The researchers used purposive sampling in order to do so. The first group was given podcast files and the second group was given vodcast files. So, totally in this study, we had three groups (the podcast group, the vodcast group, and the control group). Among 60 podcast files and 50 vodcast files, 10 podcasts and 10 vodcasts were chosen according to Lawsh CVR and CVI (0.42, 0.79) formula. Questionnaires and file validity were checked by some experts. An IELTS exam's speaking test was chosen as the pre-test and another test of the same book was chosen as the post-test. The design of the study was experimental. In the current study, descriptive statistics, ANCOVA Test was used in the analysis of the quantitative data. It was concluded that there is a significant difference between the pre-test and post-test scores of the experimental group in both podcast and vodcast groups, whereas there is little significant difference between the pre-test and post-test scores of the control group. The implication of this study is to use podcast and vodcast files for teachers and EFL learners in order to improve the learners' speaking skills.

**Keywords:** CALL, institute learners, motivated learners, motivation, podcast, teaching, teaching English, Technology, vodcast

**THE COMPARATIVE ANALYSIS OF KIDNEY DAMAGE BIOMARKERS IN LOW BIRTH WEIGHT SGA AND AGA NEWBORNS**

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**ABSTRACT**

Kidney damage in premature infants is a pressing issue in modern neonatology, since the symptoms of nephropathy are often disguised as symptoms of other diseases of premature infants, such as RDS, heart failure. We had compared the severity of the kidney injury in SGA and AGA preterm newborns with ischemic nephropathy using KIM-1, NGAL and Cystatin C biomarkers. The ELISA method was performed to detect these biomarkers in the urine and the serum. The results showed that the level of KIM-1 in the urine was higher in SGA newborns than in AGA newborns in all 3 degrees of IN, NGAL – was higher in SGA subgroups with II and III degrees of IN, and Cystatin C was higher in SGA infants with III degree of IN. Thus, SGA newborns constitute a risk group for the development of AKI, which must be taken into account when managing this group of children.

**Keywords:** premature infant, SGA infant, AGA infant, AKI, Ischemic Nephropathy, KIM-1, NGAL, Cystatin C

**RAISE AWARENESS AND PREPAREDNESS OF PASSENGERS AND  
SERVICE PROVIDERS DURING THE 2<sup>nd</sup> WAVE OF COVID-19 IN  
THAILAND.**

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**ABSTRACT**

After a year of the COVID-19 pandemic experiences, this observation research aimed to inspect the passengers' and service providers' awareness of public transportation during the pandemic in Thailand. In the study context, researchers scrutinized one of the major transport companies named "Pink Bus" or "PB" throughout this paper. The PB is a bus company, operating in the Northeast of Thailand. The target group was passengers and service providers of PB. The researchers used observation techniques to gather more reliable and capture targets' behavior then analyze their awareness and preparedness of the COVID-19 outbreak. The observation was monitored over a month during the second wave of the pandemic.

The result revealed that the service providers were losing the prevention of COVID-19 standard operating procedures (SOP) of the Centers for Disease Control and Prevention (CDC) to prevent the transmission during triage. For example, the bus hostesses and sale ticket services did not check a body temperature nor provide a hand sanitizer at the service station. On the other hand, observers found that the passengers took a serious precaution rather than the service providers. The result showed 89% of passengers wore a face mask and/or shield at the first point of contact when proceeded the PB service. The implication of this study is to endorse transportation services to rigorously concern health protection policy regarding COVID-19, not only applicable to buses but also to others transportation such as flights and cruises operators..

**Keywords:** CDC, Covid-19, Health Protection Policy, Passengers' Awareness, Preparedness, Service Providers' Awareness, SOP, Transportations, Observation Research