

# **TOKYO SUMMIT-IV**

**4th international conference on innovative  
studies of contemporary sciences**

## **Abstracts Book**



**July 29-31, 2021**

**Tokyo, Japan**

**Tokyo, Japan**



# Abstracts Book

## Editors

**Assoc. Prof. Maya Kupravishvili  
Zhuldyz Sakhi**

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# ABOUT SYMPOSIUM

## 4th INTERNATIONAL CONFERENCE ON INNOVATIVE STUDIES OF CONTEMPORARY SCIENCES

- Keynote & Invited participation type

### DATE - PLACE

- July 29-31, 2021  
Tokyo, JAPAN

### ORGANIZATION

- İKSAD
- Atlas International Journal
- Ejons International Journal

### ORGANIZATION COMMITTEE

Prof. Dr. Mustafa Talas  
Dr. WU Yicheng  
Dr. Mariam RASULAN  
Dr. Umrhan TURKYILMAZ  
Dr. Minji YANG  
Dr. Maria HOOKS  
Zhuldyz SAKHI  
Elvan CAFAROV

### LANGUAGES

Japanese, Turkish, English

### NUMBER OF ACCEPTED PAPERS

- 152

### NUMBER OF REJECTED PAPERS

- 21

### EVALUATION PROCESS

- All applications have undergone a double-blind peer review process

### PRESENTATION

- Oral presentation

### TOTAL NUMBER OF INTERNATIONAL PAPERS

Turkey-67

- Azerbaijan, Georgia, Iraq, USA, India, Tunisia, Morocco, Greece, Vietnam, Romania, Kazakhstan, Ethiopia, Romanian, Vietnam, Sri Lanka, Malaysia, Canada, South Africa, Saudi Arabia, Bulgaria, Nigeria, Libya, Algérie -85



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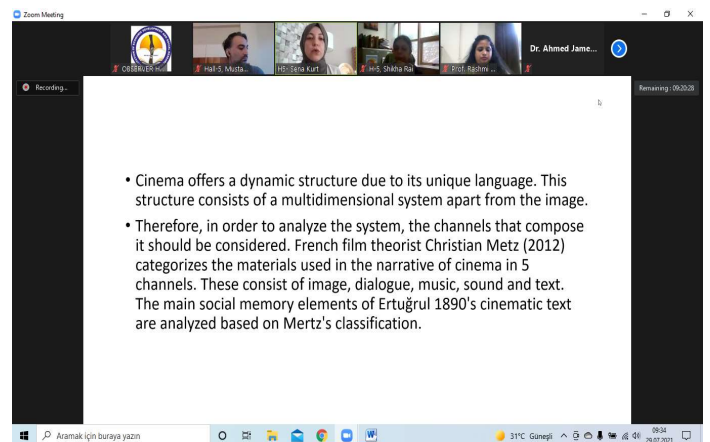
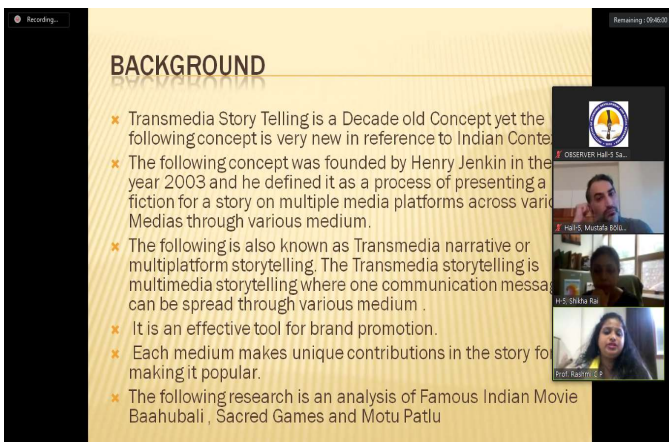
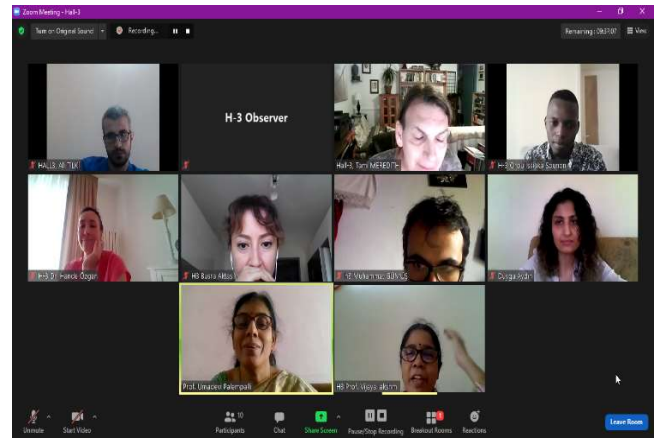
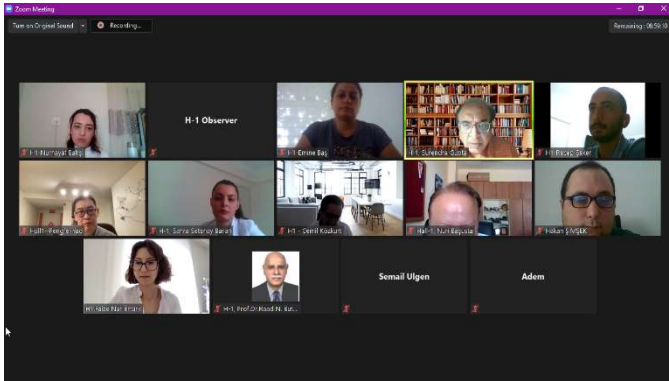
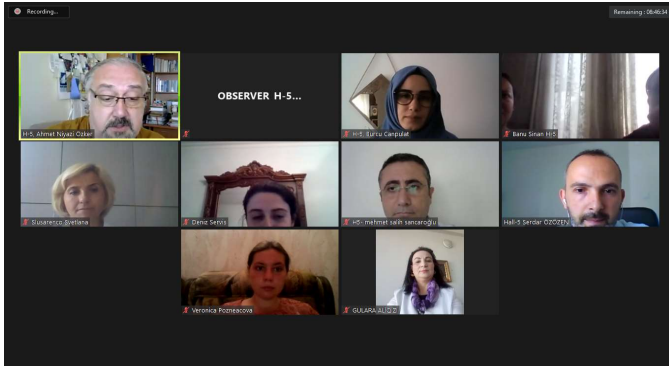
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**Cengiz TOPDEMİR**

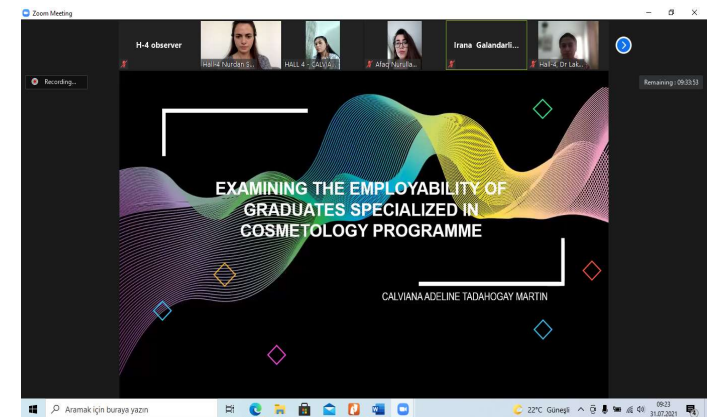
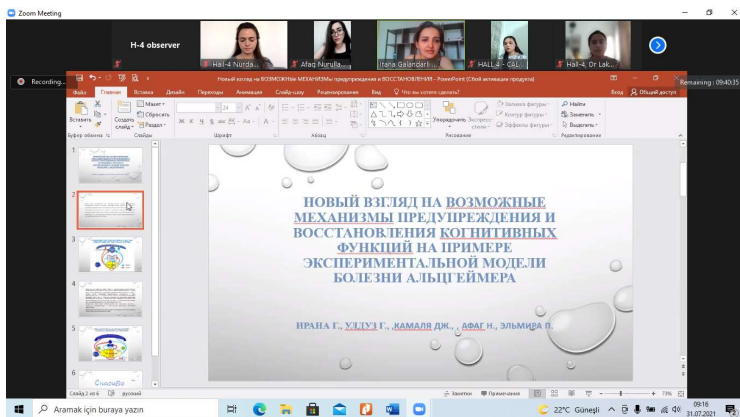
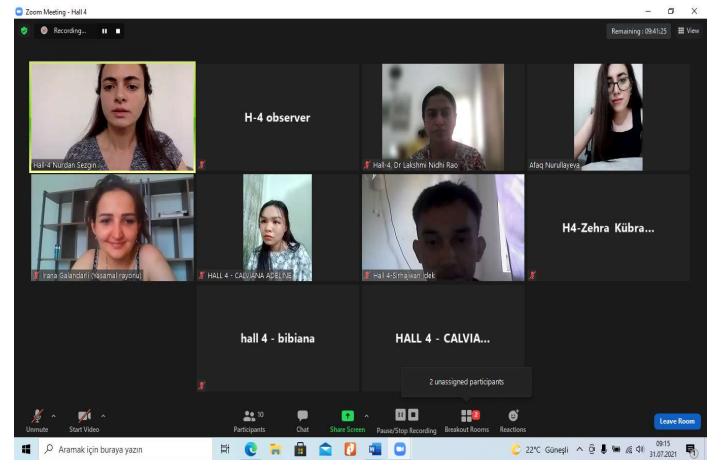
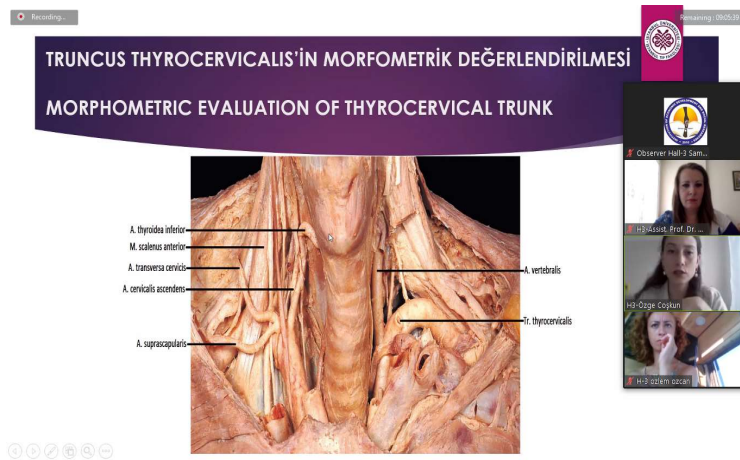
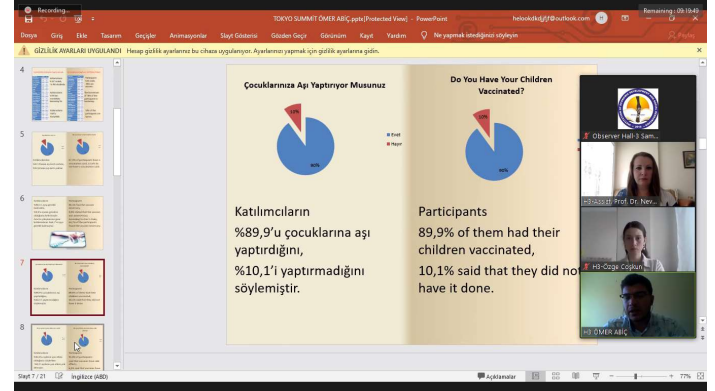
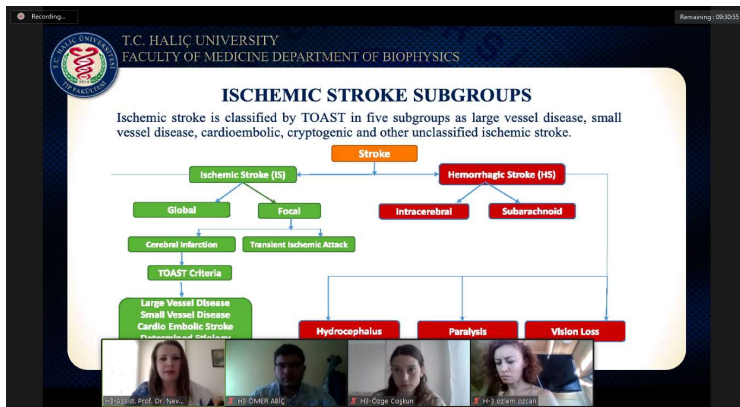
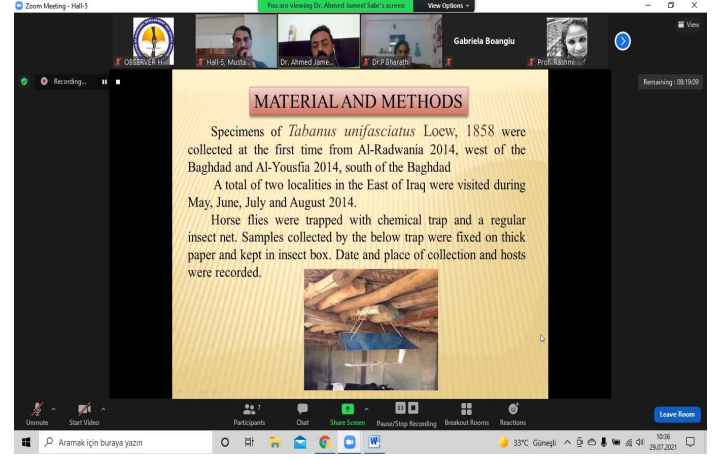
Awarded Mathematician



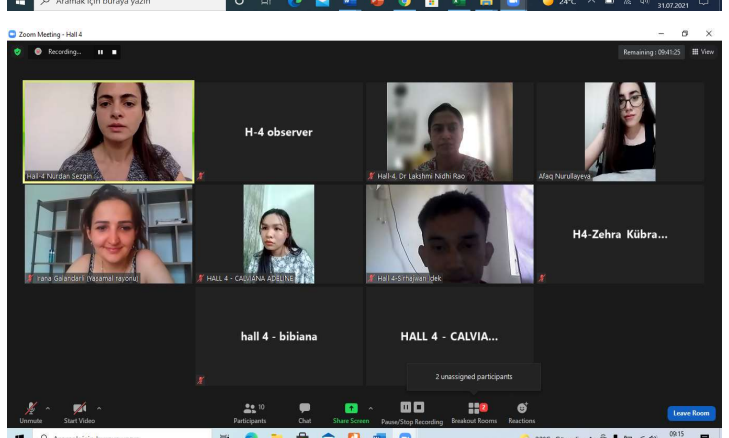
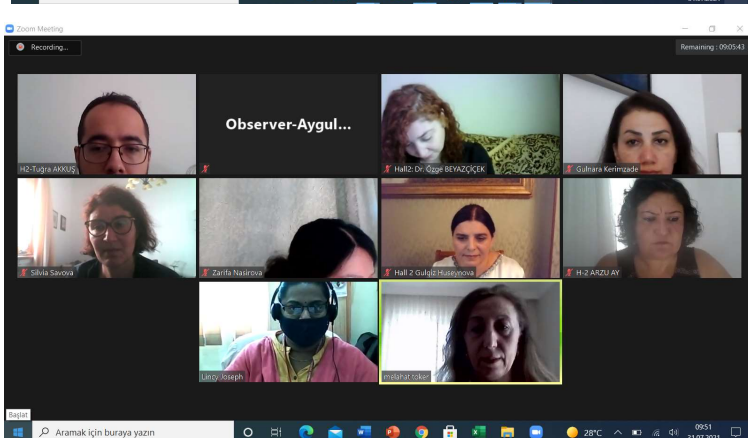
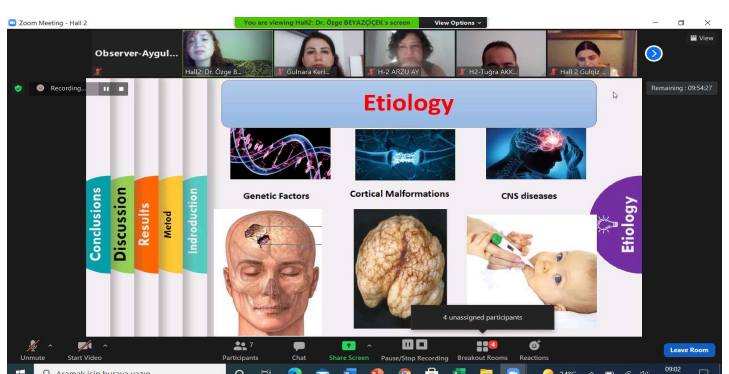
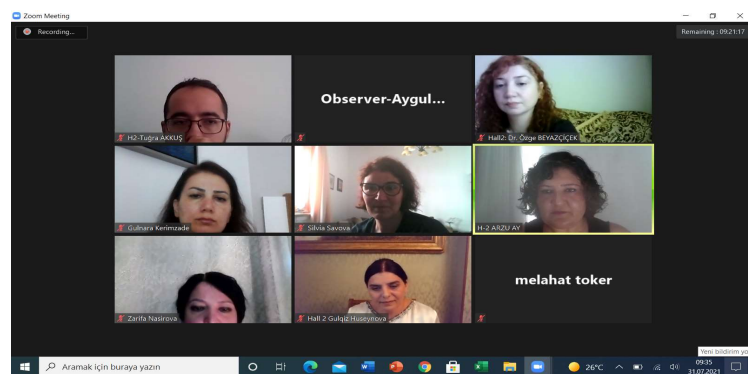
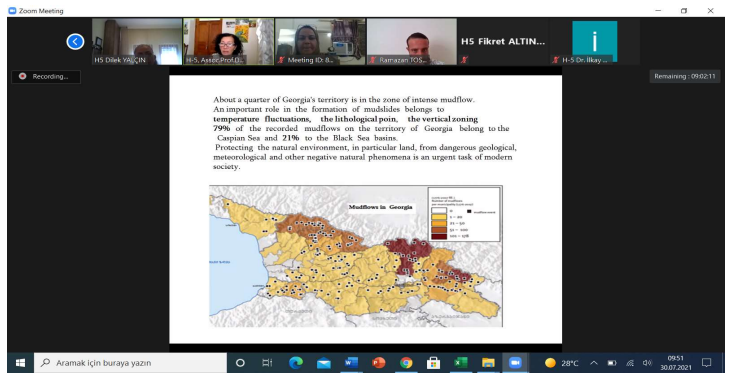
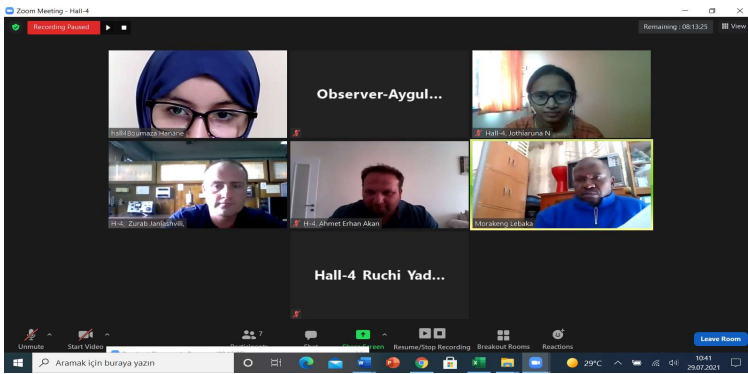
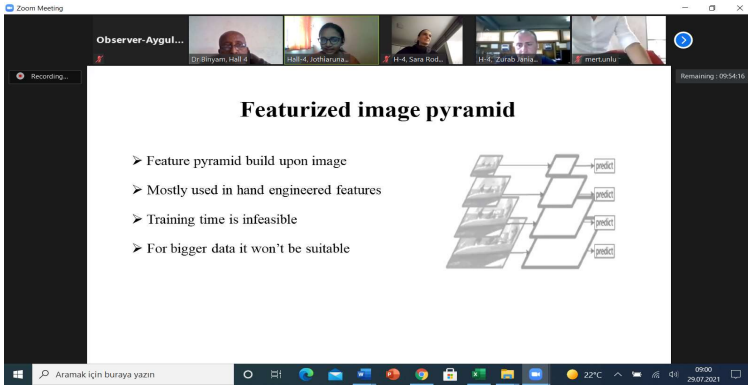
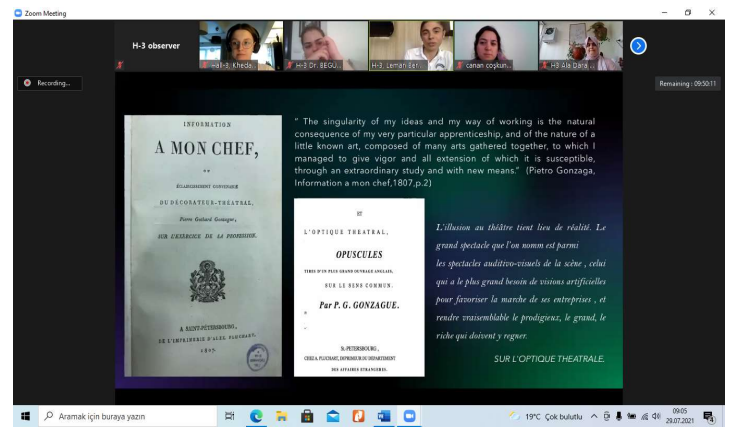
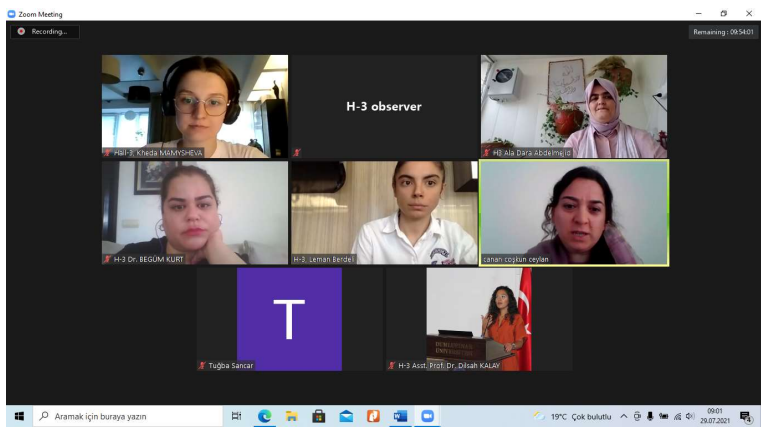
# CONFERENCE GALLERY



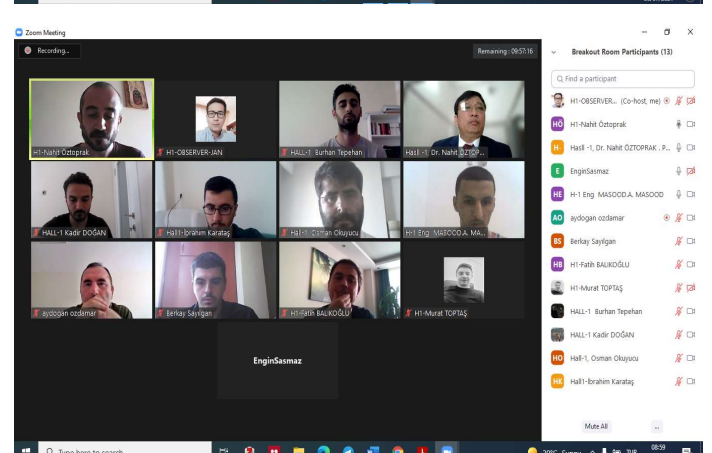
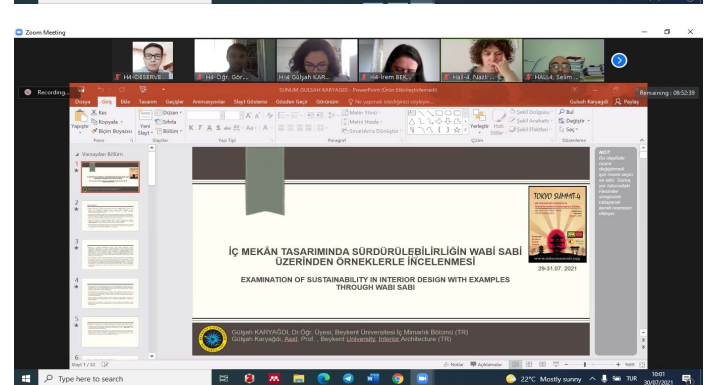
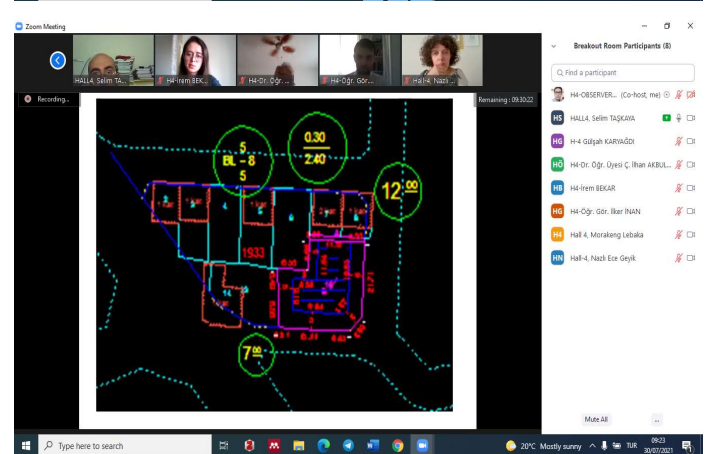
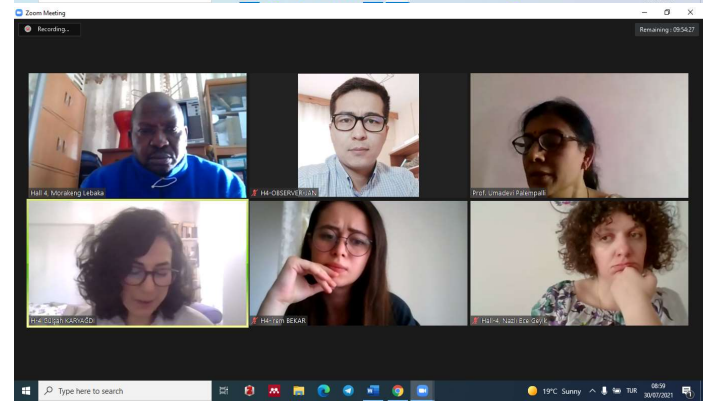














**TOKYO SUMMIT**

**4<sup>TH</sup> INTERNATIONAL CONFERENCE ON INNOVATIVE  
STUDIES OF CONTEMPORARY SCIENCES**

**JULY 29–31, 2021**

**TOKYO, JAPAN**

**CONFERENCE PROGRAM**







**Meeting ID: 833 6404 6776**  
**Passcode: 708610**

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- ❖ To be able to attend a meeting online, login via <https://zoom.us/join> site, enter ID "Meeting ID or Personal Link Name" and solidify the session.
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- ❖ The participant must be connected to the session 5 minutes before the presentation time.
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**Before you login to Zoom please indicate your name surname and hall number,  
exp. H-1 Dr. Zhuldyz SAKHI**

**Participants Countries:**





# -Opening Ceremony-

**29.07.2021**

**Tokyo Local Time: 14<sup>40</sup>-15<sup>00</sup>**

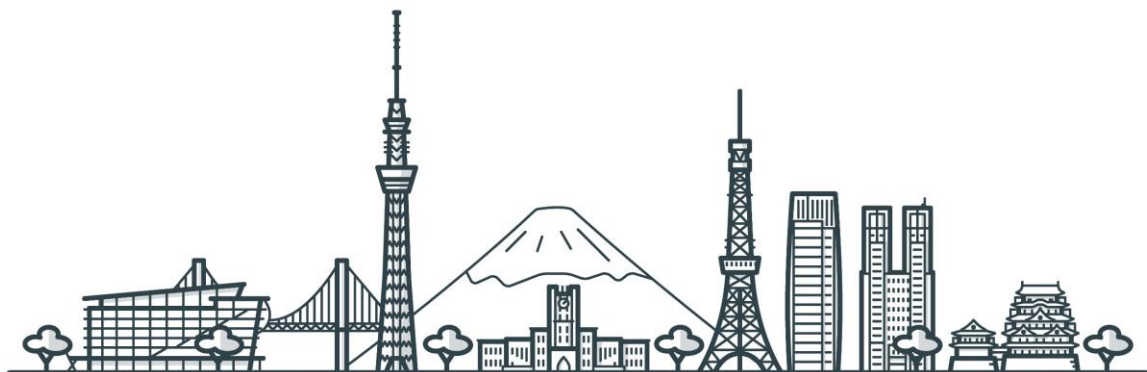
**Ankara Local Time: 08<sup>40</sup>-09<sup>00</sup>**

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## **Dr. Yingxu Wang**

President, International Institute of Cognitive Informatics and Cognitive Computing (I2CICC)  
Visiting Professor: Stanford Univ. (2008|16), MIT (2012), UC Berkeley (2008), Oxford Univ. (1995 | 2-18-22)  
Dept. of Electrical and Software Engineering  
Schulich School of Engineering and Hotchkiss Brain Institute  
University of Calgary, Canada  
2500 University Drive, NW, Calgary, AB, Canada T2N 1N4

**“Emergence of Contemporary Abstract Sciences: From Intelligence, Knowledge, Information, and Data Sciences to Intelligent Mathematics”**



**Tokyo**



**29.07.2021 | HALL-1**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

**HEAD OF SESSION: Dr. Pengfei Yao**

Prof. Dr. Raad N. Butris	University of Duhok, Iraq	PERIODIC SOLUTIONS OF VOLTERRA INTEGRO-DIFFERENTIAL EQUATIONS WHICH HAVE THE RETARDED ARGUMENT WITH BOUNDARY CONDITIONS OF GAMMA FUNCTIONS
Lect. Dr. Emine BAŞ	Selçuk University, Turkey	PERFORMANCE ANALYSIS OF GRAY WOLF OPTIMIZATION AND SALP SWARM ALGORITHM
Cemil KÖZKURT	Bandırma Onyedi Eylül University, Turkey	SOLUTION OF THE STEP-CONE PULLEY PROBLEM WITH RECENT OPTIMIZATION ALGORITHMS
Pengfei Yao Surendra M. Gupta	Northeastern University Boston, USA	COLONY OPTIMIZATION ALGORITHM FOR SOLVING U-SHAPED DISASSEMBLY LINE BALANCING PROBLEM WITH MULTIPLE OBJECTIVES
Nurhayat Bahşi Semail Ülgen	Antalya Bilim University, Turkey	NURSE SCHEDULING PROBLEM AND OPTIMIZATION FOR ANTALYA TRAINING AND RESEARCH HOSPITAL
Hakan Şimşek Faize Nur Ertürk Recep Şeker	Antalya Bilim University, Turkey	A FUZZY LOGIC METHOD AND PATH ALGORITHM FOR ENERGY AND TIME MANAGEMENT OF A SMART CLEANING MACHINE
Prof.Dr.Nuri Başusta	Firat University	AGE DETERMINATION STUDIES FROM DIFFERENT STRUCTURES OF THE PRUPLE DYE MUREX (BOLINUS BRANDARIS) INHABITING AEGEAN SEA
Sahra Setenay Baran Belma Aslim	Gazi University	In-Silico Prediction and In-Vitro Validation of Inhibitor Activity of Allocryptopine against Acetylcholine Esterase Enzyme in the Drug Development for Alzheimer's Disease



**Tokyo**



**29.07.2021 | HALL-2**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

## HEAD OF SESSION: Prof. Dr. Ismail KARACAN

Zeynel Abidin SARI M. Deniz TURAN Mustafa BOYRAZLI Murat ERDEMOĞLU	Iskenderun Technical University, Turkey Firat University, Turkey İnönü University, Turkey	PHOTOCHEMICAL OXIDATION AND DISSOLUTION OF COPPER SLAG IN ACIDIC MEDIA
Ilavenil K. K Senthil Kumar. V	Nehru Memorial College, India SRM-TRP Engineering College, India	ANTIMICROBIAL INVESTIGATION AND DOCKING ANALYSIS OF QUINOLINE COMPOUNDS
Safi Khaoula Yaltese Mohamed Athmane Belhadi Salim Mabrouki Tarek Kouahla Ilyas	May 8th 1945 University, Algeria University of Tunis El Manar, Tunisia	OPTIMIZATION OF AISI D3 STEEL USING CARBIDE CUTTING TOOL (CVD) BASED ON TAGUCHI AND TOPSIS APPROACHES
Issam Jilal Soufian El Barkany Zahra Bahari Ola Sundman Abderahmane El Idrissi Mohamed Abou-Salama Abderrahmane Romane Chahid Zannagui Hassan Amhamdi	Pluridisciplinaire de Nador, Maroco	NEW QUATERNIZED CELLULOSE BASED ON HYDROXYETHYL CELLULOSE (HEC) GRAFTED EDTA: SYNTHESIS, CHARACTERIZATION AND APPLICATION FOR Pb (II) AND Cu (II) REMOVAL
Dermentzis Konstantinos Kokkinos Nikolaos Marmanis Dimitrios	International Hellenic University, Greece.	APPLICATION OF ELECTROCHEMICAL METHODS FOR TREATMENT OF DRILLING FLUID WASTEWATER
Marmanis Dimitrios Kokkinos Nikolaos Dermentzis Konstantinos	International Hellenic University, Greece.	LANDFILL LEACHATE TREATMENT BY COMBINED ELECTROCHEMICAL PROCESS
KOKKINOS Nikolaos MARMANIS Dimitrios DERMENTZIS Konstantinos	International Hellenic University, Greece.	THE CONTRIBUTION OF VIRTUAL REALITY IN AWARENESS AND PREPAREDNESS OF CHEMICAL INDUSTRY PROFESSIONALS
Md. Mahbubor Rahman Prof. Dr. Ismail KARACAN	Bangladesh University of Textiles, Bangladesh Erciyes University, Turkey	STRUCTURE AND PROPERTIES OF THERMALLY STABILIZED POLY(HEXAMETHYLENE ADIPAMIDE) AS CARBON FIBER PRECURSOR: X-RAY DIFFRACTION, TGA, AND FT-IR SPECTROSCOPY ANALYSIS
F. Nihan Dogan M. Ekrem Karpuzcu	Istanbul Technical University, Turkey Istanbul Technical University, Turkey	MODELING THE IMPACT OF LAND USE CHANGE ON THE HYDROLOGY OF A DRINKING WATER BASIN
Chkhartishvili Nodari Chkhartishvili Nino Torotadze Soso	Georgian Technical University	GEORGIAN VITICULTURE-WINEMAKING – KARTLI AGROCLIMATIC ZONE
Oanh Thi Truong Sang Quang Tran Van Ngo Thai Bich Binh Thuy Dang	Nha Trang University, Vietnam. The University of Danang- University of Science and Technology	EZRAD BARCODE SPECIES VERIFICATION OF BLACK SHARKMINNOW LABEO CHRYSOPHEKADION (CYPRINIFORMES: CYPRINIDAE) IN THE LOWER MEKONG RIVER BASIN



Tokyo



**29.07.2021 | HALL-3**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

**HEAD OF SESSION: Dr. Leman BERDELI**

Dr. Canan COŞKUN	MEB, Turkey	PSYCHOLOGICAL PERSPECTIVES OF THE STUDY CALLED THE STRANGE LIBRARY BY HARUKI MURAKAMI
Hawzhen Slewa Issa , Ala Dara Abdul Majed	Koya University, Iraq	THE FOUNDATIONS OF AESTHETICS IN THE TEXT IN THE VISION OF THE POET "MAEDUMI"
Assist. Prof. Dr. Begüm KURT	Çağ University, Turkey	THE PERCEPTION OF THE CHAOTIC WORLD IN ARCHAIC MAN: DEMONS IN SUMERIAN AND TURKISH MYTHOLOGIES
Leman BERDELI	Sapienza Università di Roma	IMAGINARY SPECIAL EFFECTS IN THE CLASSICAL ROMANTIC GESAMTKUNSTWERK FANTASY
Maralkhanim Aliyeva	Azerbaijan State Pedagogical University, Azerbaijan	INTEGRATED APPROACH IN TEACHING CONDUCTOR AS THE BASIS FOR THE DEVELOPMENT OF THE CREATIVE PERSONALITY OF FUTURE MUSIC TEACHERS
Naila Yusifova	Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan	FEATURES OF THE ORIGIN OF AZERBAIJANI ORONYMS
Asst. Prof. Dilşah KALAY Lect. Turgut KALAY	Kütahya Dumlupınar University, Turkey. Mimar Sinan Fine Arts University, Turkey.	THE CONNOTATIONS OF JAPANESE WORDS WRITTEN IN KANJI ALPHABET: A "COLOR" FUL REPRESENTATION
Kheda Mamysheva	Nazarbayev University, Nur-Sultan city, Kazakhstan	RUSSIAN IN KAZAKHSTAN: LANGUAGE IDEOLOGIES, LINGUISTIC PROCESSES, AND REACTIONS OF THE CHECHEN-INGUSH DIASPORA ON LINGUISTIC CHANGES
Asst. Prof. Ulviyya Nasirova Samira Hasanova Fidan Naghiyeva	Odlar Yurdu University, Baku, Azerbaijan	DIFFICULTIES IN TRANSLATION OF TECHNICAL TERMS
Togrul Refail Salmanzade	Baku State University	THE ROLE OF MULTICULTURALISM ON THE DIALOGUE OF CIVILISATIONS: THE AZERBAIJANI PERSPECTIVE



**Tokyo**



**29.07.2021 | HALL-4**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



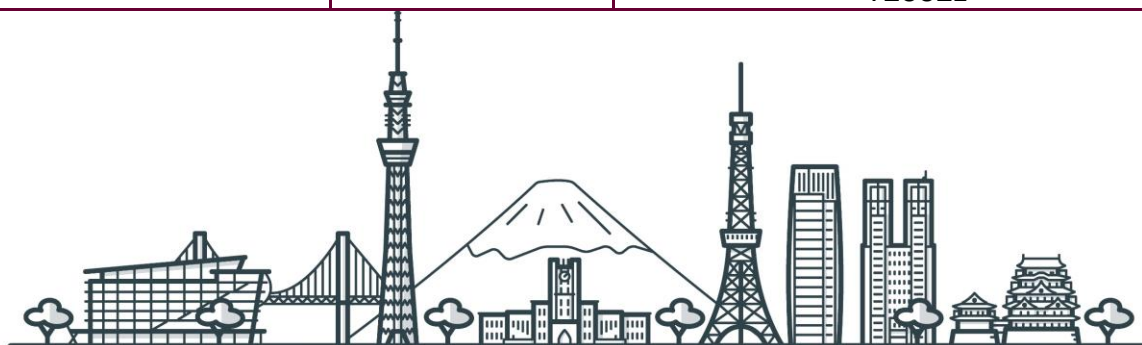
**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

**HEAD OF SESSION: Dr. Binyam Zigta**

Jothiaruna N Anny Leema A	Vellore Institute of Technology, India	DIFFERENT MULTI-SCALE FEATURE MAPS FOR OBJECT DETECTION
Kadir Mert Unlü Sinan Çalışkan	Ektam Machinery, Turkey	EFFECTED FACTORS OF OPP LABELLING PERFORMANCE
Sara Rodriguez Joseph Youssif Saab Jr. Alexandre Martuscelli Faria Marcos de Mattos Pimenta	Sao Paulo State University Maua Institute of Technology	PNOISE AND THE IMPORTANCE OF WIND TURBINE NOISE PREDICTION
Lecturer Dr. Ahmet Erhan AKAN	Tekirdağ Namık Kemal University, Turkey	TECHNO-ECONOMIC ANALYSIS OF AN OFF- GRID HYBRID ENERGY SYSTEM WITH HOMER PRO
Ramin Chikhladze Ketevan Chikhladze Zurab Janiashvili	Georgian Technical University, Georgia	INFLUENCE OF IMPURITIES ON THE PROPERTIES OF NEW TRANSFORMER OIL
Hanane Boumaza Salim Belhadi Mohamed Athmane Yallese Abdelkrim Haddad Kouahla Ilyas	May 8th 1945 University, Algeria	APPLICATION OF THE TAGUCHI-DEAR METHODOLOGY IN MULTI-CRITERIA DECISION MAKING DURING THE DRY TURNING OF INCONEL 718
Ruchi Yadav Rashmi Priyadarshini R M Mehra	Sharda University, India	DETECTION OF EPILEPTIC SEIZURES USING WIRELESS SYSTEMS
H. C. Das Ankit Kumar S. K. Patra	Institute of Physics Homi Bhabha National Institute, India.	NEUTRON STAR IN THE PRESENCE OF DARK MATTER
Abdullayev Anar Arif	National Aviation Academy of Azerbaijan	ACCUMULATOR BATTERIES AND FUEL ELEMENTS
Ali Khalaf Hasan Dalal Naji Hameed	College of Education for Girls Kufa University, Najaf, Iraq	DESCRIPTIVE STUDY OF THE GERMANIUM 66: USING THE MSDI
Dr. Binyam Zigta	Wolaita Sodo University, ETHIOPIA	EFFECT OF THERMAL RADIATION AND CHEMICAL REACTION ON MHD FLOW OF BLOOD IN STRETCHING PERMEABLE VESSEL



**Tokyo**



**29.07.2021 | HALL-5**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



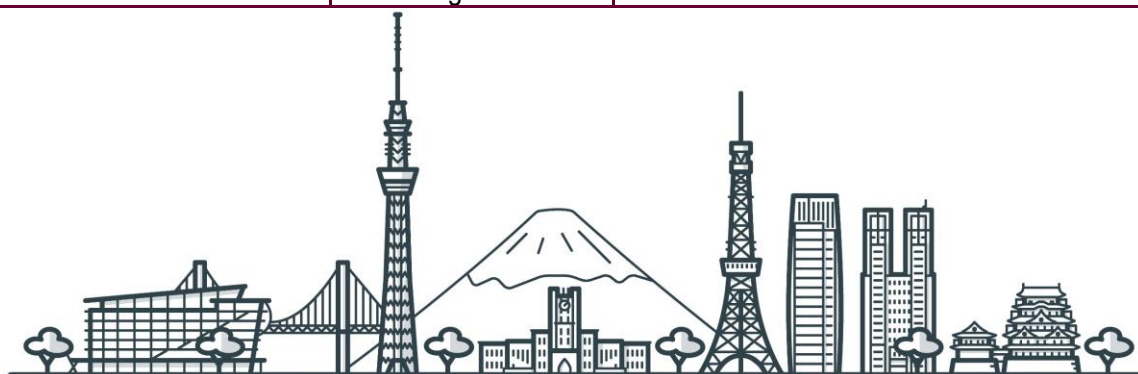
**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

## HEAD OF SESSION: Dr. Mustafa BÖLÜKBAŞI

Ms. C P Rashmi Dr. Shikha Rai	Sharda University IES University Indira Gandhi National Open University, India,	TRANSMEDIA STORY TELLING AND IMAGE PROJECTION IN THE INDIAN CONTEXT: A STUDY OF EMERGING TRENDS THROUGH COMPARATIVE ANALYSIS OF FILM, WEB SERIES AND ANIMATION
Sena Kurt	Giresun University, Turkey	THE RELATIONSHIP OF INTERNATIONAL COLLECTIVE MEMORY AND CINEMA: ERTUĞRUL 1890 (125 YEARS MEMORY/ KAINAN 1890)
Dr. Paluri Bharathi Prof. P. Vijayalakshmi	Sri Padmavati Women's University, India	THE EFFECTS OF THE COVID-19 PANDEMIC ON JOURNALISM: MENTAL HEALTH IMPLICATIONS ON JOURNALISTS, MEDIA PERSONS AND SUPPORT STAFF
Dr. Mustafa BÖLÜKBAŞI	Uşak University, Turkey	PANDEMIC, INFODEMIC AND INFORMATION DISORDER: A QUALITATIVE CONTENT ANALYSIS ON FALSE INFORMATION DURING CORONAVIRUS
Gabriela Boangiu	"C. S. Nicolăescu- Plopşor", Craiova, of the Romanian Academy	FEMINISM, FEMININITY AND SOCIAL ISSUES IN ROMANIAN GLOSSY MAGAZINES
Tami Meredith , Maryanne Fisher	Dalhousie University Saint Mary's University	STUDENTS' PERSPECTIVES ON REAL AND IDEAL USES OF INSTRUCTOR'S TIME
Thi My Hanh DINH , Van Hung TRAN, Tu Thanh NGO	The University of Danang - University of Science and Education, Danang, Vietnam	ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION - OPPORTUNITIES AND CHALLENGES IN THE CONTEXT OF THE WORLD AND VIETNAM
Ahmed Jameel Sabr	College of Education for Pure Sciens Ibn Al-Haitham, University of Baghdad.	MORPHO-TAXONOMIC STUDY OF TABANUS UNIFASCIATUS LOEW, 1858 (DIPTERA: TABANIDAE). NEW RECORD FOR IRAQ



**Tokyo**



**29.07.2021 | HALL-6**



**Tokyo Local Time: 15<sup>00</sup>-17<sup>30</sup>**



**Ankara Local Time: 09<sup>00</sup>-11<sup>30</sup>**



**Meeting ID: 833 6404 6776 | Passcode: 708610**

## HEAD OF SESSION: Assoc. Prof. Dr. F. Oben ÜRÜ

P.B.D. Fernando M.D. Pushpakumari	University of Sri Jayawardenepura, Sri Lanka	BLURRED LINES OF WORK-LIFE BALANCE: HOW COVID-19 PANDEMIC REDEFINED THE PERFORMANCE OF ENTRYLEVEL CAREER- WOMEN IN PRIVATE BANKING SECTOR, SRI LANKA
Assoc. Prof. Dr. F. Oben ÜRÜ Assoc. Prof. Dr. Ebru GÖZÜKARA	Istanbul Arel University, Turkey	ASSESSING THE EVOLUTION OF SUSTAINABILITY-LED INNOVATION WITH CASES
M.A.K.De.S., Jayasekera M.D Pushpakumari	University of Sri Jayawardenapura, Sri Lanka	CAN ETHICAL BANKING DO JUSTICE TO CUSTOMER INVESTMENTS?
Dr Muhammad Emad Al- Shaikh	Faisal University	CHARACTERISTICS AND BEST PRACTICES OF ENTREPRENEURIAL MARKETING: LESSONS FOR YOUNG ENTREPRENEURS
Adegboyega S. OYEWOLE Lateef Abiodun SALAMI Toriola, Anu Keshiro Adebosin, Walid Gbadebo	College of Primary Education, NOFORIJA, Lagos Hallmark University, Nigeria	THE COMPARATIVE ANALYSIS OF MANAGEMENT SYSTEMS IN NIGERIAN AND UKRAINIAN UNIVERSITIES
Fatma ALTUNTAS	Istanbul Ayyansaray University, Turkey	CLUSTERING WIND ENERGY TECHNOLOGIES WITH THE K-MEANS METHOD
Dr. Vaniki Joshi Lohani Dr. Mohit Lohani	Jawaharlal Nehru University, Delhi Linen Design Company, INDIA	A STUDY OF A CIVIC CROWDFUNDING CAMPAIGN IN INDIA
Dr. Mohit Lohani Dr. Kapil Sharma Dr. Prabhu Narayan Mishra	Linen Design Company, INDIA Devi Ahilya University, INDIA	A STUDY ON THE EFFECT OF DEMOGRAPHIC VARIABLES ON ELECTRONIC SERVICE QUALITY OF PRODUCT ECOMMERCE IN INDIA
Raghavendra B S Dr. Chandan Chavadi Dr. Ravikeerthi J V	Accenture Financial analyst Bangalore India Presidency College	A STUDY ON AWARENESS OF SMALL FIRMS ON CUSTOMER SATISFACTION WITH COST SAVINGS IN REVERSE LOGISTICS
Assoc.Prof. Dr. Levent AKSU	Balikesira University	THE RELATIONSHIP BETWEEN ECONOMIC GROWTH AND CONSUMPTION OF ENERGY RESOURCES IN TURKEY



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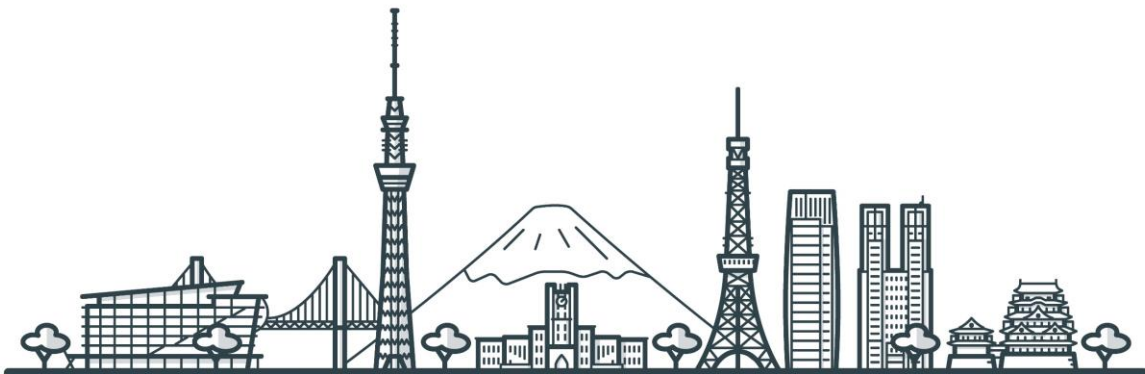
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**HEAD OF SESSION: Dr. Mehmet Cüneyt GÖKÇE**

Yunus ŞAHİNLER Büşra Fatma ÜN Taner ATASOY	Kütahya Dumlupınar University, Turkey Cardiff Metropolitan University Cardiff Wales İstanbul Gelişim University, Turkey	SPORTS PSYCHOLOGY IN THE WORLD AND IN TURKEY
Tuğba Sancar Merve Mamacı	İstanbul Kent University, Turkey Fenerbahçe University, Turkey	AN INVESTIGATION ON PSYCHOLOGICAL RESILIENCE, SELF-EFFICACY AND ACHIEVEMENT- ORIENTED MOTIVATION OF UNIVERSITY STUDENTS DURING PANDEMICS IN TERMS OF DEMOGRAPHIC VARIABLES
Asli Beril KARAKAS Ali Saffet GONUL	Ege University, Turkey	BRAIN VOLUME CHANGES IN MAJOR DEPRESSIVE DISORDER: A NOVEL METHOD
Mehmet ÖZBAŞ Adem DÖLEK	Erzincan Binali Yıldırım University, Turkey	ISLAMIC SOLUTIONS TO LONELY PROBLEMS
Dr. Mehmet Cüneyt GÖKÇE	Harran University, Turkey	DAILS OF DEISM



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**HEAD OF SESSION: Dr. Ali BAYKAL**

Đinh Thị My Hanh Ngô Tứ Thành Tran Van Hung	University of Danang, Hanoi University of Science and Technology, Vietnam	THE IMPACT OF ARTIFICIAL INTELLIGENCE - THE FUTURE OF HIGHER EDUCATION
Hayati DOKDEMİR Mehmet ÖZBAŞ	Ege University, Turkey Erzincan Binali Yıldırım University, Turkey	INITIAL REGULATIONS AND IN THE FIELD OF EDUCATION DURING II. CONSTITUTIONAL PERIOD (1908-1918)
Ismail Olaniyi MURAINA Sakibu Olajide SAIBU Adebisi Sylvester OLUDE	Ogunsanya College of Education Ogunsanya College of Education Lagos Nigeria	THE USE OF APPEALING TECHNOLOGIES TOWARDS ENSURING HIGH LEVEL OF INTERACTIVITY IN LEARNERS AND TEACHERS
Elesta Sawadi Dencisca Ellyvia Sidin	Keningau Vocational College, Malaysia	WHEEL OF LIFE: TEACHING SCIENCE THROUGH AN ADAPTED VERSION OF SPIN THE WHEEL GAME
Yunus Doğan Veli Batdı Hanen Abazeed	Firat University, Turkey Gaziantep University, Turkey Kilis 7 Aralık Universtiy	A META-THEMATIC ANALYSIS OF THE EFFECTS OF SOCRATIC (QUESTION- ANSWER) METHOD ON EDUCATION
Tamilla Bagirova	Azerbaijan State Pedagogical University	HISTORIKAL ROOTS OF THE PROBLEM OF EDUCATION OF THE INDIVIDUAL AND SOCIETY
Dr Adam Andani MOHAMMED Dr Mpawenimana Abdallah SAIDI Dr Bougangué BASSOUMAH	Social Work Studies, 2 Universiti Malaysia Sarawak UNIMAS, Malaysia University for Development Studies (UDS), Tamale, Ghana	APPROPRIATE LEARNING MANAGEMENT SYSTEM: A SYSTEMATIC REVIEW ON FLEXIBLE TEACHING AND LEARNING
Marlena Daneva Marina Nikolova	Technical University of Sofia, Bulgaria	ETHNO-CULTURAL ASPECTS OF LEARNING ATTITUDES
Ali BAYKAL	Bahçeşehir University, Turkey	COVID19, FRAGILITY, AND HIGHER EDUCATION: HOW INTER-CORRELATED THEY ARE?
Tolga ÖZKAPTAN	Ankara University	VIOLENCE AGAINST WOMEN IN LATIN AMERICA



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**HEAD OF SESSION: Dr. Tami Meredith**

Manasi, Khidkikar Dr. Walter Andzel Timothy Marshall Thomas Koc Kim Spaccarotella Rachael Milbrook	Kean University, USA	LIFESTYLE BEHAVIORS AND EFFECT OF COVID-19
Tami Meredith Maryanne Fisher	Dalhousie University, Canada Saint Mary's University, Canada	STUDENTS' PERSPECTIVES ON REAL AND IDEAL USES OF INSTRUCTOR'S TIME
Prof. Peddiboyina Vijaya Lakshmi Prof. Palempalli Uma Maheswari Devi	Sri Padmavati Mahila Visvavidyalayam, Tirupati, India Sri Padmavati Mahila Visvavidyalayam, Tirupati, India	TRANS- DISCIPLINARY RESEARCH: A KEY TO COMPREHEND ADOLESCENT HEALTH
Busra AKTAS	Burdur Mehmet Akif Ersoy University, Turkey	GUT-BRAIN AXIS IN PARKINSON'S DISEASE
Full prof. Milen Penerliev, PhD Assoc. Prof. Veselin Petkov	University of Shumen "Konstantin Preslavski" Bulgaria	APPLICATION OF HUMAN GEOGRAPHY METHODS FOR COVID-19 RESEARCH
Muhammet Gümüş Sibel Orhan Emine Kızılkaya Elif MALTAŞ	Cumhuriyet University, Turkey Namık Kemal University, Turkey Karamanoğlu Mehmet Bey University, Turkey Hacı Bayram Veli University, Turkey	THE RELATIONSHIP BETWEEN OPERATIONAL LEADERSHIP AND KNOWLEDGE MANAGEMENT
Ali Tilki Assoc. Prof. Rabia SOHBET	Gaziantep University, Turkey	THE RELATIONSHIP OF OCCUPATIONAL HEALTH SAFETY AND MOTIVATION IN HEALTHCARE WORKERS
Duygu Aydın Dr. Burcu Yuksel	Kocaeli University	REDUCING THE TOXIC EFFECT OF THE ISOTHIAZOLINONE COMPOUND USING VERMICOMPOST
Orou Issiaka SOUNON Hande ÖZGEN	Yıldırım Beyazıt University	EFFECTS OF TOXIC EMOTIONAL EXPERIENCES AND PERCEIVED ORGANIZATIONAL SUPPORT ON POSITIVE WORK BEHAVIORS, WITHDRAWAL BEHAVIORS, AND ANTAGONISTIC WORK BEHAVIORS



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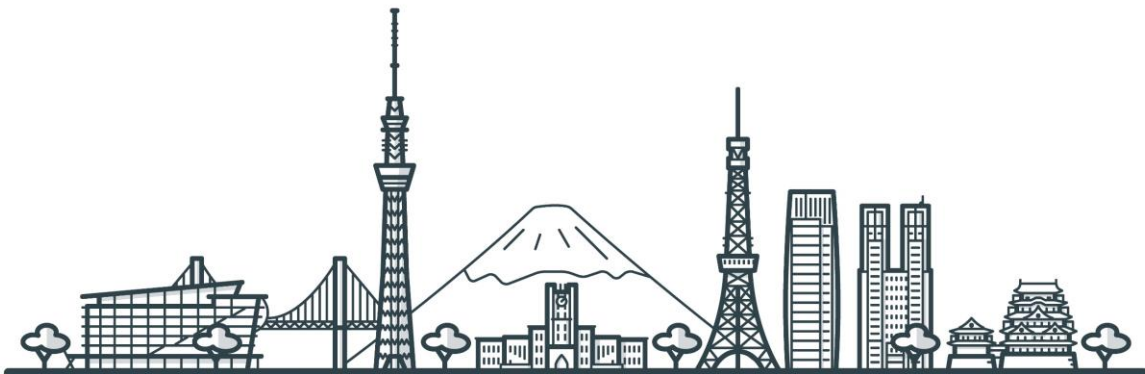
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**HEAD OF SESSION: Dr. Gülşah KARYAĞDI**

Morakeng Edward Kenneth Lebaka	University of Zululand, South Africa	SPIRITUALITY AND ITS RELEVANCE TO SAINT JOHN APOSTOLIC CHURCH: MAPHOPHA CONGREGATION
Amal AL mousa Massouda Qurban	Prince Sattam Unveracity, Saudi Arabia king Saud Unveracity, Saudi Arabia	SPACE-TIME AS AN ENTRANCE TO DESIGN DEVELOPMENT EXERCISES FOR ART TALENTED
Selim Taşkaya	Artvin Meslek Yüksekokulu, Türkiye	LOCAL DETERMINATION OF BROKEN POINT COORDINATES OF BUILDING PLOTS IN SEPARATE ZONING ISLANDS WITH THE COLLINS METHOD
Şebnem ERTAŞ BEŞİR İrem BEKAR	Akdeniz University, Turkey. Karadeniz Technical University, Turkey	LOCALITY IN FURNITURE FEATURES: EASTERN BLACK SEA REGION
Çetin İlhan AKBULUT İlker İNAN Nazlı Ece GEYİK	Doğuş University, Turkey İstanbul Gelişim University, Turkey İzmir Kavram Vocational School	EGİL CAVES AND CASTLE
Dr. Gülşah KARYAĞDI	Beykent University, Turkey	EXAMINATION OF SUSTAINABILITY IN INTERIOR DESIGN WITH EXAMPLES THROUGH WABI SABI



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**HEAD OF SESSION: Assoc. Prof. Dr. Maya KUPRAVISHVILI**

Muazaz Azeez AL-Hadeethi Basma M. Al-Obaidi	Baghdad University, Iraq	AN ANATOMICAL AND CHEMICAL COMPARISON STUDY OF EPIPREMNUM AUREUM CULTIVATED IN SOIL AND SOILLESS
Nino Chkhartishvili Londa Mamasakhlisashvili Jaba Abaishvili	Georgian Technical University Scientific-Research Center of Agriculture	THE EFFECT OF GREEN HARVEST ON THE WINE QUALITY
Maya KUPRAVISHVILI	Georgian Technical University, Georgia	MLETA'S GORGE AS A REPRESENTATIVE FACE OF THE MUDFLOW WATERCOURSES OF GEORGIA
Ms. Sonal Chaudhary Dr. Shalini Porwal	Amity University Uttar Pradesh, Noida, Uttar Pradesh	FABRICATION OF BIOENZYMES BY BACTERIA IN PAPER AND PULP INDUSTRY
İlkay AÇIKGÖZ ERKAYA Dilek YALÇIN	Kırşehir Ahi Evran University, Turkey Gazi University Turkey	UNDER GLOBAL SUSTAINABILITY MICROALGAE SPIROGYRA SP. DETERMINATION OF FATTY ACID COMPOSITION OF STRAINS AND ESTABLISHING SCALABILITY IN APPLICATIONS
Ramazan TOSUN Sulhattin YAŞAR	Iğdır University, Turkey Karamanoglu Mehmetbey University, Turkey	EFFECT OF MIXTURE FUNGAL INOCULANT ON NUTRITIONAL COMPOSITION OF SUNFLOWER MEAL BY WAY OF FERMENTATION
Mine KÖKTÜRK Fikret ALTINDAĞ Güneş ÖZHAN Arzu ODUNKIRAN	Iğdır University, Iğdır Van Yüzüncü Yıl University, Turkey Dokuz Eylül University Turkey	NEUROTOXIC EFFECTS CAUSED BY SODIUM NITRITE IN ZEBRAFISH EMBRYOS/LARVAE (DANIO RERIO)



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**HEAD OF SESSION: Dr. Nahit ÖZTOPRAK**

Ho Duc Tuan Mai Duc Nghia	Nha Trang University, Nha Trang city, VietNam Air Force Officer's college, Nha Trang city, VietNam	STUDY ON THE EFFECT OF THE HIGH-PRESSURE PUMP'S CAM-PROFILE ON FUEL INJECTION PARAMETERS AND DIESEL ENGINE POWER OF THE FISHING VESSEL
Burhan TEPEHAN İsmail Yasin SÜLÜ	İnönü Üniversite, Makine Mühendisliği Bölümü, Malatya/TÜRKİYE	ANALYSIS OF LAYER ARRANGEMENTS FOR LIGHTENED AND STRENGTHENED LAYERED COMPOSITE HELMET DESIGN
Ress. Asst. Murat Toptaş Prof. Dr. Mehmet Yılmaz	Inonu University, Turkey	DESIGN OF SMART FIRE EXTINGUISHING AMMUNITION
Kadir DOĞAN İsmail Yasin SÜLÜ	Inonu University, Turkey	COMPARISON OF STRESSES IN HEALTHY TEETH WITH AMALGAM-RESTORED TEETH UNDER COMPRESSIVE LOAD
Giorgi Noselidze	Georgian Technical University, Georgia	THE HYDRAULICAL COMPARISON AND ECONOMICAL EFFECTIVENESS OF PRACTICAL PROFILE SPILLWAY AND BROAD THRESHOLD STILL WAY BUILDINGS
Berkay SAYILGAN Engin ŞAŞMAZ Aydoğan ÖZDAMAR	Ege University, Turkey Valf Sanayi A.Ş., Turkey. Ege University, Turkey	OPTIMIZATION OF LPG CYLINDER VALVE SAFETY PIN
Nahit ÖZTOPRAK	Dokuz Eylül University, Turkey	QUASI-STATIC INDENTATION (QSI) RESISTANCE AT DIFFERENT LOADING RATES AND COMPRESSIVE RESPONSE OF HOT TOOL WELDED (HTWD) DISSIMILAR THERMOPLASTIC JOINTS
Masood A. Masood Abdussalam Ali Ahmed Zayad M. Sheggaf	Bani Waleed University, Bani Waleed, Libya College of Technical Sciences, Bani Waleed, Libya.	THE PERFORMANCE OF EXHAUST GAS RECIRCULATION (EGR) ON A SINGLE-CYLINDER DIESEL ENGINE (EMISSIONS LEVELS)
İbrahim KARATAŞ Abdulkadir BUDAK	Osmaniye Korkut Ata University, Turkey	PREDICTION OF LABOR ACTIVITY RECOGNITION IN CONSTRUCTION WITH MACHINE LEARNING ALGORITHMS
Dr. Osman OKUYUCU	Tekirdağ Namık Kemal University, Turkey	STEEL FIBER REINFORCED FLOWABLE FILL



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Nino Kacharava Natali Maisuradze Nia Iskandarova	San Diego State University Georgia, Georgia	TRAFFIC CONGESTION AND EFFICIENT WAYS TO DEAL WITH IT IN TBILISI, GEORGIA
Halis Kandaş Fatih Balıkoğlu Tayfur Kerem Demircioğlu	Dokuz Eylül University Balıkesir University	EXPERIMENTAL STUDY ON QUASI-STATIC PUNCH SHEAR RESISTANCE OF GRID- SCORED FOAM CORE SANDWICH COMPOSITES

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### HEAD OF SESSION: Prof. Dr. Lincy Joseph

Dr. Ersin BEYAZÇİÇEK Dr. Özge BEYAZÇİÇEK	Duzce University, Turkey	EFFECTS OF OXYMATRINE ON THE PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RATS: AN ELECTROPHYSIOLOGICAL STUDY
Prof. Dr. Lincy Joseph Prof. Dr. Mathew George	Sharda University, Noida, India	ANTI-DIABETIC POTENTIAL OF NEWLY SYNTHESIZED OXYGEN AND NITROGEN CONTAINING HETEROCYCLIC DERIVATIVES
Prof. Dr. Mathew George Prof. Dr. Lincy Joseph	Sharda University, Noida, India	NOVEL PRESCRIBING PATTERN AND IMPACT ON PSYCHOSOCIAL HEALTH OF PATIENTS UNDERGOING HAEMODIALYSIS
Slaveyka Paneva Silvia Tsanova-Savova Stefan Velikov	Medical University, Sofia	TOTAL PHENOLIC AND TOTAL FLAVONOIDS CONTENT OF BULGARIAN MEDICAL PLANTS
Assist. Prof. Dr. Arzu AY	Trakya University, Turkey	DETERMINATION OF THE RELATIONSHIP BETWEEN CYP1A1 T1101C (rs 1048943) GENE VARIATION AND SERUM COPPER LEVELS IN COLORECTAL CANCER PATIENTS
KERIMZADE G.E.	Azerbaijan Medical University, Baku, Azerbaijan	TO THE INTERNAL STRUCTURE OF THE FACIAL NERVE
Assist. Prof. Tuğra AKKUŞ	Harran University, Sanliurfa-TURKEY	THE EFFECT OF BIRTH TYPE ON TOTAL THIOL AND NATIVE THIOL IN ALEPPO GOATS AND KIDS
Shekhmous H. Hussien Sherzad M. Hussein Sarbast I. Mustafa Renas H.Issa Mwafaq S. Berwary	University of Duhok, Duhok, Iraq	MAY CHICKEN CORONAVIRUS MUTATE INTO COVID-19-LIKE VIRUS?
Dr. Melahat Toker Prof. Dr. Mehmet İriadam	Başkent University, Turkey Harran University, Turkey	DETERMINATION OF THE FREQUENCY OF PULMONARY STRAIN IN HUMAN AND ANIMALS BY ECHOCARDIOGRAPHY



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Huseynova Gulgiz Agagasan Nasirova Zarifa Jahangir	Azerbaijan Medical University, Baku, Azerbaijan	FEATURES OF THE MIELINIZATION IN DIFFERENT PARTS OF THE OCULOMOTOR NERVE
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### HEAD OF SESSION: Assist. Prof. Dr. Nevra Alkanli

SAGHOURI EL IDRISSE Imane KETTANI Rajae FERRAHI Moha BRHADDA Najiba ZIRI Rabea	National Institute of Agronomic Research (INRA), Morocco University of Ibn Tofail, Morocco	STUDY OF THE ADAPTATION TO WATER DEFICIT OF SOME HARD WHEAT VARIETIES: POTENTIAL INTEREST OF THESE VARIETIES FOR PRODUCTION IMPROVEMENT
Assist. Prof. Dr. Nevra Alkanli Assist. Prof. Dr. Alev Bakir	Haliç University, Turkey Haliç University, Turkey	INVESTIGATION OF PLASMA TOTAL HOMOCYSTEINE LEVELS IN ISCHEMIC STROKE PATIENTS AND PATIENT SUBGROUPS
Ömer ABİÇ Assoc. Prof. Dr. Rabia SOHBET	Gaziantep University, Turkey	THE EFFECT OF FAMILY VALUES ON VACCINATION ACCEPTANCE AND REJECTION
Bounequet Soumia Messioud Salah	Université de Jijel/LGCE , Algérie	VERTICAL AND HORIZONTAL DYNAMIC IMPEDANCES OF SUCTION FOUNDATIONS
Hayriye Kul Karaali Duygu Ilgın Özlem Özcan	Manisa Celal Bayar University, Turkey	PHYSIOTHERAPY AND REHABILITATION DEPARTMENT STUDENTS AND NATIONAL COLOR CODING SYSTEM IN HEALTH CARE
Ozge COŞKUN Özcan GAYRETLİ Osman COŞKUN Buse Naz ÇANDIR Ayşin KALE Adnan ÖZTÜRK	İstanbul University, Turkey	MORPHOMETRIC EVALUATION OF THYROCERVICAL TRUNK
Kamala Sh. Babazade, Aghasamid B. Isayev	Azerbaijan medical University, Azerbaijan	ANATOMICAL VARIANTS OF THE INCISIAL FORAMEN



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**HEAD OF SESSION: Dr. Nurdan Sezgin**

Afaq Nurullayeva Irana Galandarli	Azerbaijan National Academy of Sciences, Institute of Physiology named after Academician Abdullav Garayev, Baku, Azerbaijan	ROLE OF ADMINISTRATION OF SEROTONIN- MODULATING ANTICONSOLIDATION PROTEIN IN MITIGATION OF PRO-OXIDATIVE EFFECTS OF HIGH DOSES OF $\gamma$ -IRRADIATION
Irana Galandarli Afaq Nurullayeva	Azerbaijan National Academy of Sciences, Institute of Physiology named after Academician Abdullav Garayev, Baku, Azerbaijan	STUDY OF THE REHABILITATION ROLE OF SELENIUM-CONTAINING CURCUMA AND SAFRON PREPARATIONS IN THE EXPERIMENTAL MODEL OF ALZHEIMER'S DISEASE
Calviana Adeline Tadahogay Martin	Keningau Vocational College, Keningau, Sabah	EXAMINING THE EMPLOYABILITY OF GRADUATES SPECIALIZED IN COSMETOLOGY PROGRAMME
MSc Zehra Kubra Yilmaz Prof. Dr. Belma Aslim Assoc. Prof. Dr. Ozlem Ozdemir	Gazi University, Turkey	IN VITRO ANTIOXIDANT PROPERTIES OF 2-(4- (2 HYDROXYBENZYLIDENEAMINO)BENZYLIDENE AMINO)BENZOIC ACID
Dr. Lakshmi Nidhi Rao Dr. Aditya Shetty	A.B.Shetty Memorial Institute of Dental sciences, Nitte Deemed to be University, India	EMERGENCE OF BIO-INSPIRED POLYDOPAMINE AS A BIOMATERIAL
Nurdan Sezgin Şükriye Karadayı Beytullah Karadayı	Kütahya Health Sciences University, Turkey Altınbaş University, Turkey İstanbul University- Cerrahpaşa, Turkey	PUBLISHING RATES OF ABSTRACTS PRESENTED AT THE AMERICAN ACADEMY OF FORENSIC SCIENCES MEETINGS IN 2011 AND 2016
Işıl Sezen Ermiş İlhan Özdemir Engin DEVECİ	Atatürk University Dicle University	EVALUATION OF THE IMPORTANCE OF GRANULOSA CELLS AND CASPASE-3, TNF- IMMUNE ACTIVITY IN IVF FERTILIZATION SUCCESS
İlhan Özdemir Engin DEVECİ Cenap EKİNCİ Şamil ÖZTÜRK	Atatürk University Dicle University	EVALUATION OF THE EFFECTS OF OXIDATIVE STRESS-INDUCED CHANGE IN OVARIAN GERM CELLS IN INFERTILITY
Işıl Sezen Ermiş İlhan Özdemir Engin DEVECİ	Dicle University	EVALUATION OF IL-10, CASPAS-6 EXPRESSION IN STEM VILLUS STRUCTURE IN

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

Banu HAS Sinan ÇINAR	Ege University, Turkey	MILITARY EXPENDITURES AND ECONOMIC GROWTH IN TURKEY: COINTEGRATION AND CAUSALITY ANALYSIS
GULARA RAHIMOVA NARMIN GULIYEVA	Baku State University, Azerbaijan	CONSTRUCTION OF ECONOMETRIC MODEL BASED ON ECONOMIC INDICATORS AND FORECAST WITH THE BEST MODEL
GULARA RAHIMOVA NARMIN GULIYEVA	Baku State University, Azerbaijan	EXAMPLES OF REGRESSION AND CORRELATION ANALYSIS IN ECONOMETRIC STUDIES
Svetlana Slusarenco Veronica Pozneacova	Moldova State University, Moldova	THE CONCEPT OF SOCIAL CONTRACT IN JOHN LOCKE'S POLITICAL PHILOSOPHY
Mehtap Aracı Kazıcı	Nevşehir Hacı Bektaş Veli University, Turkey	OVERVIEW OF EMPLOYEE THEFT IN TURKEY AND IN THE WORLD AND STUDIES ON PREVENTION
Serdar ÖZÖZEN	Uludag University, Turkey	MEASUREMENT OF JAPAN'S INTRA- INDUSTRY TRADE LEVEL ACCORDING TO FACTOR INTENSITY (1988-2020)
Polya Yordanova	University of Veliko Tarnovo, Bulgaria,	RETROSPECTIVE ECONOMIC ANALYSIS FOR THE DEVELOPMENT OF THE HORSE BREEDING INDUSTRY
Dr. Kamran Ahmed Siddiqui	Imam Abdulrahman Bin Faisal University, Saudi Arabia	CLASSIFYING INTERBRANDS TOP 100 GLOBAL BRANDSBASED ON TEXTUAL AND VISUAL ELEMENTS OF LOGO DESIGN
Prof. Dr. Ahmet Niyazi ÖZKER Burcu CANPULAT	Bandırma Onyedi Eylül University, TURKEY	THE POSITION OF PUBLIC EXPENDITURES IN THE PROCESS OF ECONOMIC GROWTH: AN EVALUATION OF TURKEY
Mehmet Salih Sancaroğlu Murat Yücel	Gazi University, TURKEY	EFFICIENCY INCREASING APPROACHES AND PRIORITY IDENTIFICATION SYSTEM IMPLEMENTATION IN ITIL-BASED SERVICE DESK SYSTEMS



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**HEAD OF SESSION: Nusret Salman ogluy Babayev**

Garmidarova Evgeniya Igorevna Babayev Nusret Salman	<i>Finance and Financial Institutions of the State Economic University of Azerbaijan</i>	THE IMPACT OF GLOBALIZATION ON THE MANAGEMENT OF BANKING CAPITAL IN THE COUNTRIES OF THE WORLD
Hasan.Khurshud Behbuzzadeh	<i>Finance and Financial Institutions of the Azerbaijan State University of Economics,</i>	MEANS OF MONETARY REGULATION OF THE STATE AND ITS IMPLEMENTATION
Nusret Salman ogluy Babayev Habil Huseyn oglu Aslanov	<i>Finance and Financial Institutions of the Azerbaijan State University of Economics, Baku stateUniversity</i>	The country's foreign trade policy and its role in integration into the international economy
Ramiz Najafli	Baku State University	KALBAJAR MUSEUM OF HISTORY AND ETHNOGRAPHY AS A SOURCE FOR THE STUDYING OF HISTORICAL MONUMENTS
Dr. Gökberk DURMAZ Dr. Güray ALPAR	University of Ankara (ASBU), Ankara, TURKEY Institute of Strategic Thinking, Ankara, TURKEY	JAPAN AND THE USA IN THE ERA OF HIGHLY-SKILLED IMMIGRATION: COMPARISON BETWEEN TSUKUBA SCIENCE CITY AND PALO ALTO (SILICON VALLEY)
Dr. Haydar HOŞGÖR	Uşak University	THE EFFECT OF INTERNET ADDICTION ON THE HAPPINESS AND LONELINESS LEVELS OF MEDICAL SECRETARY CANDIDATES
Assoc. Prof. Sarkhan Khaveri	Scientific secretary of the Presidium of ANAS Azerbaijan	AZERBAIJAN FOLKLORE IN THE CONTEXT OF FUNCTIONAL STRUCTURAL SYSTEM DURING REPRESSION
Büşra GÜNEŞ	Firat University, Turkey	RESEARCH ON PSYCHOLOGICAL RESILIENCE IN ADOLESCENTS: A SCALE DEVELOPMENT STUDY
Thu Hang Pham	The People's Police Academy, Hanoi, Vietnam	SOCIAL LOAFERS' CONTINUOUS SOCIAL LOAFING – A MEDIATOR IN THE RELATIONSHIP BETWEEN TEAMMATES' SOCIAL COMPENSATION AND LOW TEAM PERFORMANCE



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# PERIODIC SOLUTIONS OF VOLTERRA INTEGRO-DIFFERENTIAL EQUATIONS WHICH HAVE THE RETARDED ARGUMENT WITH BOUNDARY CONDITIONS OF GAMMA FUNCTIONS

**Raad N. Butris & Sahla B. Abdi**

*University of Duhok, College of Basic Education, Department of Mathematics, Iraq*

## Abstract

In this paper, we investigate the existence, uniqueness and stability periodic solutions of new Volterra integro-differential equations which have the retarded argument with boundary conditions of Gamma functions by using the numerical- analytic method that has been used to the study of a periodic solutions of nonlinear ordinary differential equations that were introduced by Samiolenko. Theorems on existence, uniqueness and stability periodic solutions which are established under some necessary and sufficient conditions on closed and bounded domains (compact spaces).

**Keywords:** Numerical-analytic methods, existence, uniqueness and stability periodic solutions, Volterra integro-differential equations, boundary conditions of Gamma functions.



**TIBBİ SEKRETER ADAYLARININ MUTLULUK VE YALNIZLIK DÜZEYLERİ  
ÜZERİNDE İNTERNET BAĞIMLILIĞININ ETKİSİ****THE EFFECT OF INTERNET ADDICTION ON THE HAPPINESS AND LONELINESS  
LEVELS OF MEDICAL SECRETARY CANDIDATES****Öğr. Gör. Dr. Haydar HOŞGÖR<sup>1\*</sup>***<sup>1</sup>Uşak Üniversitesi, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikler Bölümü,  
Uşak, Türkiye.***ORCID: 0000-0002-1174-1184****Özet**

Günlük yaşamın ayrılmaz bir parçası haline gelen internetin kullanımı, dünya çapında her geçen gün artış göstermektedir. Medya ve teknolojiye ilerlemeye birlikte internet, insanın coğrafi engellerini ortadan kaldırmada etkili bir araç olarak ortaya çıkmıştır. Diğer yandan bu durum, özellikle gençlerde aşırı bilgisayar kullanımıyla ilişkili olan potansiyel bir sorunun ortaya çıkmasına yol açmıştır. Dolayısıyla bu çalışmada, tıbbi sekreter adaylarının mutluluk ve yalnızlık düzeyleri üzerinde internet bağımlılığının etkisini incelenmiştir. Araştırmanın çalışma grubunu, 2020-2021 Eğitim-Öğretim Dönemi Bahar Yarıyılı'nda Uşak Üniversitesi'nde Sağlık Hizmetleri Meslek Yüksekokulu Tıbbi Dokümantasyon ve Sekreterlik Programı'nda eğitim gören 188 tıbbi sekreter adayı oluşturmaktadır. Tamsayım örneklem yönteminin kullanıldığı çalışmada, araştırma evreninin %75'ine erişilmiştir. Veriler, araştırmacı tarafından oluşturulan bir e-anket vasıtasıyla çevrimiçi olarak toplanmıştır. E-anketin hazırlanmasında Google formlar altyapısından yararlanılmıştır. Araştırma verilerinin toplanmasında Young İnternet Bağımlılığı Testi Kısa Formu, Oxford Mutluluk Ölçeği Kısa Formu ve UCLA Yalnızlık Ölçeği Kısa Formu kullanılmıştır. Verilerin analizinde IBM SPSS V.22 ve IBM AMOS V.23 paket programları kullanılmıştır. Araştırma sonuçları tıbbi sekreter adaylarının internet bağımlılığı ( $2,50 \pm 0,73$ ) ve yalnızlık ( $1,88 \pm 0,66$ ) düzeylerinin düşük, mutluluk ( $3,30 \pm 0,63$ ) düzeylerinin ise orta seviyede olduğunu göstermiştir. Ayrıca internet bağımlılığının mutluluk üzerinde %9,3'lük, yalnızlık üzerindeyse %19,4'lük bir etkisi olduğu sonucuna varılmıştır.

**Anahtar Kelimeler:** tıbbi sekreter, internet bağımlılığı, mutluluk, yalnızlık, tıp sekreteri adayı

**Abstract**

The use of the internet, which has become an integral part of daily life, is increasing day by day around the world. With the progress in media and technology, the internet has emerged as an effective tool to remove the geographical barriers of people. On the other hand, this has led to the emergence of a potential problem associated with excessive computer use, especially among young people. Therefore, in this study, the effect of internet addiction on the happiness and loneliness levels of medical secretary candidates was examined. The study group of the research consists of 188 medical secretary candidates studying in the Medical Documentation and Secretarial Program of the Vocational School of Health Services at Uşak University in the 2020-2021 Academic Term Spring Semester. In the study, in which the census sampling method was used, 75% of the research population was reached. Data were collected online via an e-survey created by the researcher. Google forms infrastructure was used in the preparation of the e-survey. Young Internet Addiction Test Short Form, Oxford Happiness Scale Short Form and UCLA Loneliness Scale Short Form were used to



collect research data. IBM SPSS V.22 and IBM AMOS V.23 package programs were used in the analysis of the data. The results of the research showed that the internet addiction ( $2.50 \pm 0.73$ ) and loneliness ( $1.88 \pm 0.66$ ) levels of the medical secretary candidates were low, and the happiness ( $3.30 \pm 0.63$ ) levels were moderate. In addition, it was concluded that internet addiction had effect on happiness and loneliness at 9.3% and at 19.4%, respectively.

**Keywords:** medical secretary, internet addiction, happiness, loneliness, medical secretary candidate



## PERFORMANCE ANALYSIS OF GRAY WOLF OPTIMIZATION AND SALP SWARM ALGORITHM

**Lecturer Dr. Emine BAŞ**

*Kulu Vocational School, Selçuk University, 42075, Konya, Turkey*

*ORCID: 0000-0003-4322-6010*

### Abstract

This article focuses on two intuitive methods that exemplify the lifestyle of living things with the leader chosen by the herd. Algorithms used in the study; Gray Wolf Optimization (GWO) and Salp Swarm Algorithm (SalpSA). Herd behavior is a common behavior of animals of similar size and brought together in the same place or migrating in the same direction. Gray wolves often act on average 5-12 wolves. Each gray wolf in the herd has a different mission and name. Different names are given to gray wolves according to their work; alpha, beta, delta, and omega. Another important algorithm is the Salp Swarm (SalpSA) algorithm. SalpSA examined the lifestyle of the Salp herd. SalpSA is inspired by the fusion behavior of salps while navigating the oceans and searching for food. The common feature of the two algorithms in this article is that they are herd-based algorithms. It has been compared with the examination of GWO and SalpSA methods and they tested on benchmark optimization problems. In addition, a performance comparison is made with Jaya and BA algorithms. GWO and SalpSA are more successful than the BA algorithm. But they could not pass the performance of the Jaya algorithm. The obtained results were satisfactory for the algorithms but it can be improved in other ways.

**Keywords:** Gray wolf, Salp swarm, Optimization



## SOLUTION OF THE STEP-CONE PULLEY PROBLEM WITH RECENT OPTIMIZATION ALGORITHMS

**Cemil KÖZKURT**

*Bandirma Onyedi Eylul University, Faculty of Engineering and Natural Sciences, Bandirma, Turkey.*

*ORCID ID: <https://orcid.org/0000-0003-1407-9867>*

### Abstract

Today's mechanical engineers work to design machine parts with optimum dimensions, weights and mechanical properties. Graded cone pulleys are machine parts of the type of transmission element that provide rotation at different rates through belts and pulleys. The purpose of use of stepped cone pulleys is to convert low speed to high speed or to increase torque by converting high speed to low speed. Optimization of parameters such as pulley diameter at each stage of stepped pulleys, pulley width forming the contact channel of the belt is an engineering optimization problem. State-of-the-art methods are used for the optimization of these and similar mechanisms. In this study, the optimization problem is solved by applying current optimization algorithms on the 4-stage pulley problem. The main objective of the problem is to minimize the weight of the four-step cone pulley. A total of 5 variables, four of which are step diameters and one is belt groove thickness, were used in the optimization. This problem includes 11 nonlinear constraints to ensure the transmission power is at 0.75 hp. In experimental studies, recently used five different optimization algorithms were used, namely Particle Swarm Optimization (PSO), Forensic-based Investigation (FBI), Sine Cosine Algorithm (SCA), Coyote Optimization Algorithm (CO) and Atom Search Optimization (ASO). In the solution of the problem, the number of iterations for each algorithm was determined as 50, 100 and 200, and the numbers of population was handled in 10, 25 and 50. It has been observed that the PSO algorithm is superior to the others and that the CO algorithm can solve near same times with PSO at higher iteration numbers.

**Keywords:** Optimization Algorithms, Metaheuristics, Mechanical Design Optimization.



## ANT COLONY OPTIMIZATION ALGORITHM FOR SOLVING U-SHAPED DISASSEMBLY LINE BALANCING PROBLEM WITH MULTIPLE OBJECTIVES

Pengfei Yao<sup>1</sup>, Surendra M. Gupta<sup>1\*</sup>

*<sup>1</sup>Department of Mechanical and Industrial Engineering  
Northeastern University Boston, MA, 02115, USA.*

### Abstract

Economic development and manufacturing productivity rely on efficient utilization of resources. Renewal of technology and rapid manufacturing directly causes products to become end-of-life (EOL) products early in their life cycles. A higher stage of environmental protection consciousness of individuals and governments together encourage green manufacturing and remanufacturing development. Product recovery is one of the most efficient processes of dealing with EOL products. Remanufacturing is one of the elements of product recovery. Disassembly is the first step of remanufacturing and its success is an important step for creating profit. EOL products are processed on a disassembly line. Therefore, in order to improve efficiency, disassembly line balancing is crucial. U-shaped layout has many advantages compared to the traditional straight-line disassembly line. Selected operators or machines can work on both sides of the U-shaped line and thus increase the efficiency of the line. Multiple objectives need to be addressed in the disassembly line balancing problem (DLBP) since a single economic objective is not enough in a real-world environment. In this paper, several objectives such as number of workstations, smoothness index, hazardous index and demand values are considered. Due to the NP-hard characteristic of DLBP, exact methods and mathematical programming are not suitable approaches to solve practical DLBPs. Thus, meta-heuristic algorithms are better suited for solving the DLBP. For this reason, in this paper, ant colony optimization (ACO) algorithm, which is a probabilistic swarm-based meta-heuristic algorithm, is used. Since four objectives are considered, pareto front is used to classify different solutions. The performance of U-shaped disassembly line is compared to that of the straight-line disassembly line. The functionality of ACO is compared to the functionality of several other algorithms. Results show that the U-shaped layout indeed has higher efficiency compared to straight line layout and the performance of ACO is superior to other algorithms.

**Keywords:** Remanufacturing, Disassembly Line Balancing Problem, U-Shaped Disassembly line, Ant Colony Optimization (ACO).



## ANTALYA EĞİTİM ARAŞTIRMA HASTANESİ İÇİN HEMŞİRE ÇİZELGELEME PROBLEMİ VE OPTİMİZASYONU

### NURSE SCHEDULING PROBLEM AND OPTIMIZATION FOR ANTALYA TRAINING AND RESEARCH HOSPITAL

**Nurhayat BAŞİ<sup>1\*</sup>, Semail ÜLGEN<sup>2\*</sup>**

<sup>\*1</sup> *Antalya Bilim Üniversitesi, Faculty of Engineering, Industrial Engineering Department, Antalya, Turkey*

<sup>\*2</sup> *Antalya Bilim Üniversitesi, Faculty of Engineering, Industrial Engineering Department, Antalya, Turkey*

ORCID No : <https://orcid.org/0000-0002-5075-2708>

ORCID No : 0000-0003-1381-1577, WOS number : AAP-6354-2020, MR ID 1130412

#### Özet

Bu çalışmada Sağlık Bilimleri Üniversitesi Antalya Eğitim Araştırma Hastanesi (SBÜ EAH) acil servis bölümünde çalışan hemşirelerin vardiyaları sırasında yaşadıkları zorlukları, problemleri inceleyerek hemşirelere (ani değişimlere uygun ve hemşirelerin haklarını ve isteklerini karşılayan) 1 aylık alternatif bir çizelge oluşturmak istenmektedir. Bunu 12 hemşireye 1-0 hedef programı optimizasyonu ile yeni bir çizelge (aylık) oluşturulması hedeflenmektedir. Çalışmanın başlangıç olarak ilk 10 hemşireye daha sonra ise etkiyi daha iyi gözlemlemek için eklenecek 11. ve 12. hemşireye uygulanması planlanmıştır. Bu çizelgeleme çalışmasında 1-0 tam sayı hedef yöntemi, balık kılıcı diyagramı kullanılacaktır. Ulaşılan veriler ise GAMS programı üzerinden çözümlenecektir. Tablolar haline getirilen sonuçlar değerlendirilip hastane yönetimine iyileştirme önerileri olarak sunulacaktır. Çalışmanın değindiği başlıca sorun ise hemşirelerin çizelgeleme problemidir. Bu problem hemşirelerin üzerindeki baskıyı artırarak, hatalı çalışmaya neden olabilir. Bu çalışmada oluşturulacak yeni çizelge ile bu problemleri azaltmak ve hemşirelerin çalışma yoğunluğunu dengeleme, azaltma ve maliyeti azaltmak amaçlanmıştır.

#### Abstract

In this study, it is desired to create a 1-month alternative schedule for nurses after examining the difficulties and problems experienced by nurses working in the emergency department at Sağlık Bilimleri Üniversitesi Antalya Eğitim Araştırma Hastanesi (SBU EAH) during their shifts. Our goal is to create a new schedule (monthly) by optimizing the 1-0 integer program for 12 nurses. Indeed, we plan to apply the study to the first 10 nurses, and then to the 11th and 12th nurses to be added to better observe the effect. In this scheduling study, 1-0 integer target method, and fishbone diagram will be used. The obtained data will be analyzed through the GAMS program. The results expressed in tables will be evaluated and presented to the hospital management for further improvement. The main problem addressed in this study is the scheduling problem of nurses. This problem can increase the pressure on nurses and cause malfunctioning. With the alternative schedule offered in this study, it is aimed to reduce these problems and to balance the work intensity of nurses and reduce the cost.

**Keywords:** GAMS program, Scheduling, Ishikawa diagram, 0-1 Integer programming



## A FUZZY LOGIC METHOD AND PATH ALGORITHM FOR ENERGY AND TIME MANAGEMENT OF A SMART CLEANING MACHINE

**Hakan ŞİMŞEK<sup>1\*</sup> , Faize Nur ERTURK<sup>2\*</sup> , Recep Şeker<sup>3\*</sup>**

*<sup>1\*</sup>Antalya Bilim University, Engineering Faculty, Industrial Engineering, Antalya, Turkey.*

*Orcid ID: 0000-0002-1028-2676*

*<sup>2\*</sup>Antalya Bilim University, Engineering Faculty, Computer Engineering, Antalya, Turkey.*

*Orcid ID: 0000-0001-7074-4249*

*<sup>3\*</sup>Antalya Bilim University, Engineering Faculty, Computer Engineering, Antalya, Turkey.*

*Orcid ID: 0000-0002-1067-2316*

### Abstract

Smart home is the integration of technology and services for a better quality of living. Smart home technologies (SHM) or devices provide some degree of digitally connected, automated, or enhanced services to building occupants in residential areas and have been becoming increasingly popular in recent years. SHM have the potential to improve home comfort, convenience, security and energy management. Different technologies are used to equip household parts for smarter monitoring, movement and remote control and to allow effective harmonic interaction between them. Especially, energy management and path-planning algorithms are some of the important problems for such technologies to get optimum efficiency and benefit. Smart vacuum cleaning robot is one of the applications of such devices with various functions. These cleaning robots have limited battery power and battery sizes, thus effective cleaning is critical. Additionally, the shortest / optimal path planning is essential for the efficient operation of effective cleaning based on the battery time. In this article, two distinct algorithms, which are Search algorithm and CSP algorithm are utilized to obtain distinct optimal minimum path lengths for keeping the home's total dirt level as low as possible. Depending on various types of linguistic, abstract, or perceptual variables, these algorithms do not satisfy the energy management of the battery. Therefore, the fuzzy logic-based Mamdani inference system is applied to those algorithms for obtaining the charge durability of battery of the cleaning robot. The inputs affecting the charge durability in the fuzzy inference system are considered as floor type, dirt level and the width of area.

**Keywords:** Fuzzy logic; Algorithms; Cleaning Robot; Dirt.



## AGE DETERMINATION STUDIES FROM DIFFERENT STRUCTURES OF THE PURPLE DYE MUREX (*BOLINUS BRANDARIS*) INHABITING AEGEAN SEA

Nuri BAŞUSTA<sup>1\*</sup>

<sup>1</sup> Department of Marine Biology, Fisheries Faculty, Firat University, 23119, Elazığ, Turkey.

### Abstract

The purple dye murex, *Bolinus brandaris* (Linnaeus, 1758) is well known muricid species throughout the Mediterranean and Aegean Seas. The purple dye murex is fished for human consumption in some countries and occasionally in Turkey. The present study reports age determinations from different structures of the purple dye murex inhabiting Aegean sea. For this purpose, A total of 202 samples were caught by commercial trammel net fishing in Güllük Bight, Aegean Sea coasts of Turkey at about depth of 44-47 m during the 2020-2021 fishing season. Minimum-maximum lengths and weights of caught the purple dye murex were determined as 52.58-88.41mm and 10.52-39.86 g respectively. Opercular rings, shell marks and statoliths age determination methods were examined for *B. brandaris*. Statoliths were extracted from the foot part of the *B. brandaris*. For the first time, it were determined from the annual rings of these statoliths for this species. Statolith rings reading method provided more reliable results to decide of the purple dye murex age determination.

**Keywords:** The purple dye murex, *Bolinus brandaris*, Operculum, Age Determination, Statolith, Aegean Sea



***In-Silico* Prediction and *In-Vitro* VALIDATION OF INHIBITOR ACTIVITY OF ALLOCRYPTOPINE AGAINST ACETYLCHOLINE ESTERASE ENZYME IN THE DRUG DEVELOPMENT FOR ALZHEIMER'S DISEASE**

**Sahra Setenay BARAN<sup>1\*</sup>, Belma ASLİM<sup>2</sup>**

<sup>\*1</sup>*Gazi University, Graduate School of Natural and Applied Sciences, Department of Biology, 06500, Ankara, Turkey*

<sup>2</sup>*Gazi University, Faculty of Science, Department of Biology, 06500, Ankara, Turkey*  
ORCID: 0000-0001-8329-446X; ORCID: 0000-0002-0595-7237

**Abstract**

Cholinergic loss, which is a key and early finding for Alzheimer's disease (AD), triggers the degeneration of neurons and synapses. Therefore, current treatments and studies are based on the inhibition of acetylcholine esterase (AChE) with molecules. Approved treatments only provide to alleviate the symptoms. Therefore, new and effective AChE inhibitors (AChE-i) are still required. *In-silico* prediction and *in-vivo* validation strategy in drug discovery studies for AD have become popular recently because of the urgency and cost of the process. This study was aimed to investigate the inhibitory potency of allocryptopine on AChE via *in-silico* and *in-vitro*.

Docking property and stability of allocryptopine isomers on AChE were tested with molecular docking and molecular dynamics (MD) simulation methods using modules in Schrödinger Maestro Suit. Additionally, the toxicity and druggability of isomers were determined with the QikProp module. For *in-vivo* studies, an oxidative stress-induced cellular AD model with H<sub>2</sub>O<sub>2</sub> in differentiated PC12 (dPC12) cells was established. The activity of AChE was measured Ellman method, and the expression level of the AChE gene and protein was determined via qRT-PCR and Western Blot Hybridization methods, respectively.

*In-silico* results revealed that the S and R isomers docked with the inhibitory binding area of AChE produced -5.77 kcal/mol and -5.47 kcal/mol of docking scores, respectively. Moreover, isomers had continuous interactions with common residues TYR72, TRP286 and TYR34 along the 100 ns MD simulation. Furthermore, the averages of root mean square deviations were found as 1.64±0.21 and 1.89 ±0.30. Additional to these, QikProp analysis shows that allocryptopine has low toxicity and crossing capability of intestinal-blood and blood-brain barriers. *In-vitro* studies show that AChE activity reduced by 23–57%, when it was treated with allocryptopine. On the other hand, allocryptopine reduced the expression level of gene and protein by 1.1–2.1 fold, and by 1.2-1.7 fold, respectively.

As a conclusion, AChE-i activity of allocryptopine was investigated via *in-silico* and *in-vitro* methods, and results showed that allocryptopine may be a drug candidate for AD.

**Keywords:** Acetylcholine esterase inhibitor, Oxidative stress-induced Alzheimer model, Allocryptopine, *in-silico*, *in-vitro*



## PHOTOCHEMICAL OXIDATION AND DISSOLUTION OF COPPER SLAG IN ACIDIC MEDIA

**Zeynel Abidin SARI<sup>1\*</sup>, M. Deniz TURAN<sup>2</sup>, Mustafa BOYRAZLI<sup>3</sup>, Murat ERDEMOĞLU<sup>4</sup>**

*<sup>1\*</sup>Department of Metallurgy-Iskenderun Vocational School of Higher Education, Iskenderun Technical University, 31200, Hatay, Turkey*

*<sup>1\*</sup>ORCID ID: 0000-0001-5932-2141*

*<sup>2,3</sup>Department of Metallurgy and Materials Engineering, Firat University, 23119 Elazığ, Turkey*

*<sup>2</sup>ORCID ID: 0000-0002-2136-1425*

*<sup>3</sup>ORCID ID: 0000-0002-2340-6703*

*<sup>4</sup>Department of Mining Engineering, İnönü University, 44280 Malatya, Turkey*

*<sup>4</sup>ORCID ID: 0000-0003-2922-7965*

### Abstract

This study demonstrated the comparative dissolution behavior of various metals (Cu, Fe) from the copper slag both in photoreactor systems and in atmospheric conditions, separately. For this purpose, an ultraviolet (UV) lamp with a 185 nm wavelength was used in photoreactor systems. In this context, all experimental studies were carried out in the presence of H<sub>2</sub>SO<sub>4</sub>, at an air feed rate of 6 L/min, in order to form active radicals and reactive species, especially in the UV environment. The parameters examined in the study are as follows: the power of the UV lamp: 10-50W, H<sub>2</sub>SO<sub>4</sub> concentration: 0-3M, leaching temperature: 35-55°C, and leaching time: 5-180 min. On the other hand, in the experiments in the UV (185 nm - 48W) and non-UV environments under optimum conditions, the copper extraction rates were 85.1% and 70.7%, respectively.

**Keywords:** Photochemical oxidation, Ultraviolet (UV), Hydrometallurgy, Leaching, Copper Slag.



## ANTIMICROBIAL INVESTIGATION AND DOCKING ANALYSIS OF QUINOLINE COMPOUNDS

**Ilavenil K. K<sup>1\*</sup>, Senthil Kumar . V<sup>2</sup>**

*<sup>\*1</sup> Nehru Memorial College, Assistant Professor, Department of Chemistry,  
Tiruchirappalli, India.*

*<sup>2</sup>SRM-TRP Engineering College, Assistant Professor, Department of Mechanical  
Engineering Tiruchirappalli, India.*

### Abstract

The organic compounds quinoline-8-ol, quiniol and quinhedrone were subjected to antimicrobial studies against few gram positive and gram negative bacteria and fungi. The zone of inhibition towards the microbes was investigated by agar well diffusion method and the compound quinoline-8-ol exhibited lethal zone for the species Streptococcus (43 mm/ml), Trichophyton (42 mm/ml), quiniol is more resistant towards the organisms like Bacillus subtilis (38 mm/ml), Enterococcus faecalis (40 mm/ml), Micrococcus (22mm/ml), Aspergillus flavus (20 mm/ml) and for quinhedrone Staphylococcus aureus (40 mm/ml), Pseudomonas aeruginosa (38 mm/ml), Trichophyton (36 mm/ml) at higher concentrations. The docking analysis was performed for the small ligand interactions with macromolecules and the least binding energy; hydrogen atom interactions are reported using autodock 4.2.6.

**Keywords:** Quinoline-8-ol, quiniol, quinhedrone, zone of inhibition, biological activity, autodock and binding energy.



## OPTIMIZATION OF AISI D3 STEEL USING CARBIDE CUTTING TOOL (CVD) BASED ON TAGUCHI AND TOPSIS APPROACHES

**Safi Khaoula<sup>1\*</sup>, Yallese Mohamed Athmane<sup>1</sup>, Belhadi Salim<sup>1</sup>, Mabrouki Tarek<sup>2</sup>  
Kouahla Ilyas<sup>1</sup>**

*<sup>1</sup>Mechanics and Structures Research Laboratory (LMS), May 8th 1945 University, P.O.  
Box 401, Guelma 24000, Algeria.*

*<sup>2</sup>Applied Mechanics and Engineering Laboratory (LR-11-ES 19), University of Tunis El  
Manar, ENIT, BP 37, Le belvedere, 1002 Tunis, Tunisia.  
ORCID NO: 0000-0001-9195-1052*

### Abstract

The development in the manufacturing field requires the continuous optimization using various methods. In order to minimize and maximize some technological output (such as surface roughness, cutting power and the material removal rate) characterizing material machinability, it is intended to perform an optimizing approach of cutting parameters using TOPSIS based on Taguchi method. The present study focuses on experimental investigation along with an effective approach to optimize the turning characteristics of AISI D3 steel with multiple response outputs represented by the surface roughness ( $R_a$ ), power consumed ( $P_c$ ) and the material removal rate (MRR). TOPSIS method was applied, and Taguchi's signal-to-noise ratio (S/N) was employed to obtain the best combination using the larger-the-better approaches for multi-optimization. Machining was performed with a carbide cutting tool CVD ( $Al_2O_3+TiC+TiCN$ ) and the tests carried out according to the Taguchi design (L16). The objective was to identify the best combination of the cutting parameters represented by the cutting speed ( $V_c$ ), the feed rate ( $f$ ), the depth of cut ( $a_p$ ) and the insert radius ( $r$ ), for the minimization of ( $R_a$ ) and ( $P_c$ ) and simultaneous maximization of (MRR). The results achieved identify the set of optimal parameters as  $V_c=255\text{m/min}$ ,  $f=0.08\text{ mm/rev}$ ,  $a_p=0.3\text{mm}$  and  $r=1.6\text{mm}$ . They produce the desirable output parameters represented by  $R_a=0.213\mu\text{m}$ ,  $P_c=385.5\text{W}$  and  $\text{MRR}=6.12\text{cm}^3/\text{min}$ .

**Keywords:** Surface roughness,  $P_c$ , MRR, Taguchi, TOPSIS.



## **NEW QUATERNIZED CELLULOSE BASED ON HYDROXYETHYL CELLULOSE (HEC) GRAFTED EDTA: SYNTHESIS, CHARACTERIZATION AND APPLICATION FOR Pb (II) AND Cu (II) REMOVAL**

**Issam Jilal<sup>1</sup>, Soufian El Barkany<sup>1</sup>, Zahra Bahari<sup>2</sup>, Ola Sundman<sup>3</sup>, Abderahmane El Idrissi<sup>4</sup>, Mohamed Abou-Salama<sup>1</sup>, Abderrahmane Romane<sup>5</sup>, Chahid Zannagui<sup>6</sup>, Hassan Amhamdi<sup>6</sup>**

### **Abstract**

A new quaternized cellulose derivative based on Ethylenediaminetetraacetic acid (EDTA) and hydroxyethyl cellulose (HEC) is successfully prepared in homogeneous medium. The resulted product is characterized using spectroscopy techniques (FTIR, <sup>1</sup>H NMR and <sup>13</sup>C NMR). At the supramolecular level, the x-ray patterns show that a high hydrogen bond density occurs by grafting EDTA on the HEC fibers. The new adsorbent (HEC-EDTA) shows a high adsorption capacity of heavy metals (Pb (II) and Cu (II)) from aqueous metals solutions. The adsorption of the both metal ions follows the pseudo-second-order kinetic model, while the adsorption isotherms are well described by the Langmuir model. The  $q_m$  values are determined for Pb (II) and Cu (II), respectively. For each metal, the equilibrium adsorption time is found to be 30 min. Moreover, the HECEDTA adsorption capacity is strongly dependent on the pH value; and the adsorption is favorable for pH values between 4 and 6. Moreover, the results show a high affinity toward Cu (II) than Pb (II)

### **Keywords:**

Quaternized cellulose, EDTA-Edta, Adsorption capacity, Lead, Copper, Langmuir isotherm



## APPLICATION OF ELECTROCHEMICAL METHODS FOR TREATMENT OF DRILLING FLUID WASTEWATER

**Dermentzis Konstantinos\*, Kokkinos Nikolaos, Marmanis Dimitrios**

*International Hellenic University, School of Natural Sciences, Department of Chemistry,  
65404 Kavala, Greece.*

### Abstract

Drilling fluid or otherwise called drilling mud is used in the upstream petroleum industry to aid the drilling of oil and natural gas. Mud contains various solid and liquid toxic chemical additives and must be appropriately treated in order to avoid negative environmental impacts. Common methods for treatment of drilling mud wastewater are the chemically enhanced dewatering methods, such as coagulation, flocculation and flotation.

Recently, also the electrochemical methods electrocoagulation and electrooxidation have proved successful for remediating drilling fluid wastewater. Electrocoagulation performed by electrodisolution of aluminum anodes, produces the coagulant  $\text{Al}(\text{OH})_3$  and removes the bulk of inorganic and organic pollutants, while electrooxidation performed with dimensionally stable boron doped anodes produces a series of intermediate strong oxidants ( $\text{OH}^*$ ,  $\text{O}_3$ ,  $\text{S}_2\text{O}_8^{2-}$ ,  $\text{H}_2\text{O}_2$ ,  $\text{Cl}_2$ ) capable of oxidizing and destroying most of toxic organic and inorganic pollutants. Apart from efficient removal of pollutants, the electrochemical methods additionally produce hydrogen gas at the cathode and obtain energy from industrial effluents by using them as an energy source.

Electrolyses were conducted at room temperature in a cylindrical glass cell of 1000 mL containing 400 mL of working solution. Samples were extracted every 5 minutes and filtered using Whatman filter paper (Grade 40). The chemical oxygen demand (COD) was analyzed using a COD reactor (Thermoreaktor TR 420, MERCK) and a direct reading spectrophotometer (Spectroquant Pharo 100, MERCK). The electrochemical reactor was equipped with a gas collector and a gas flow meter above the central cathode to collect and measure the electrochemically generated hydrogen gas. All operating parameters affecting the efficiency of the applied electrochemical processes, such as pH, current density, electro-processing time and flow rate were investigated. The two electrochemical methods were compared and their efficiencies evaluated. Next figure shows the drilling fluid sample before and after the electrochemical treatment.



**Keywords:** Drilling fluid wastewater, electrocoagulation, electrooxidation



## LANDFILL LEACHATE TREATMENT BY COMBINED ELECTROCHEMICAL PROCESS

**Marmanis Dimitrios\*, Kokkinos Nikolaos, Dermentzis Konstantinos**

*International Hellenic University, School of Natural Sciences, Department of Chemistry,  
65404 Kavala, Greece.*

### Abstract

For many countries, landfilling is the most common method to treat municipal solid waste. During the sanitary landfilling leachates are created as a result of rainwater percolation and various biological processes. Leachate is a very complex type of wastewater, difficult to treat, as it contains a high concentration of various pollutants, such as organic compounds, ammonia, nitrates, suspended solids and other contaminants. Common methods for leachate treatment are chemical and physical processes, biological methods with aerobic and anaerobic processes, and membrane technologies. Some of these methods have been shown effective for leachate treatment, but many problems remained. Available literature data show that cleaning landfill leachate to a suitable level for discharge into the receivers or for reuse is impossible with a convenient treatment method. In most cases, these technologies are insufficient to achieve acceptable levels of pollution removal. Thus, other integrated processes have to be developed.

Recently, the electrochemical technologies, electrocoagulation and electrooxidation have proved effective for reducing inorganic and organic compounds from leachates and other wastewaters.

The present work proposes the possibility of removing organics and nitrate from landfill leachate by electrocoagulation, electrooxidation, and the combined electrocoagulation/electrooxidation process. Electrocoagulation performed by electrodisolution of aluminum electrodes removes the bulk of organic pollutants and nitrate, while electrooxidation performed with dimensionally stable boron-doped diamond electrodes oxidizes and destroys the remaining toxic organic or inorganic pollutants. The treatment investigated all operating parameters affecting the efficiency of the applied electrochemical processes, such as pH, current density, electrode type, and electro-processing time. The experimental results revealed that at the optimum conditions of applied current density 36 mA/cm<sup>2</sup> and NaCl supporting electrolyte concentration of 3 gr/L, the reduction of COD was >90 % and of nitrate >80%. Therefore, the proposed electrochemical processes could present an appropriate and safe alternative method for effective treatment of landfill leachates.

**Keywords:** landfill leachate, electro-coagulation, electro-oxidation, combined electrochemical process.



## THE CONTRIBUTION OF VIRTUAL REALITY IN AWARENESS AND PREPAREDNESS OF CHEMICAL INDUSTRY PROFESSIONALS

**KOKKINOS Nikolaos<sup>1\*</sup>, MARMANIS Dimitrios<sup>1</sup>, DERMENTZIS Konstantinos<sup>1</sup>**

*<sup>1</sup>International Hellenic University, School of Natural Sciences, Department of Chemistry,  
65404 Kavala, Greece*

### Abstract

Human factor played a dominant role in the majority of the past technological accidents. Ignorance, carelessness or even worse negligence by operators were only some reasons of those accidents. Chemical industry keeps on new techniques for optimizing human and environmental safety. The main scope of this study is to examine the contribution of virtual reality in awareness and preparedness of chemical industry professionals in emergencies. The methodology based on an in-situ threefold assessment process of the chemical industry staff on virtual reality high tech facilities at the Department of Chemistry of International Hellenic University. Firstly, the control room operations of the examinees were assessed in a state of the art Virtual Control Room (VCR) environment. Then, participants' interaction with faults, incidents and accidents was examined in a Virtual Reality Oilfield (VRO) using wearable technology. Finally, examinees' skills in crisis management were evaluated in a Virtual Dispatch Center (VDC). Various emergency what-if scenarios were investigated which were not hypothetical or fiction products, but rather the result of long-term interviews with industry executives, field operators and control room operators in order to reproduce accurately, efficiently and effectively near-misses, dangerous incidents and accidents. Useful results were drawn regarding the behavior of the participants during emergencies, their teamwork performance and their interaction with the virtual system.

**Keywords:** Virtual reality, chemical industry, control room operations, emergency, crisis



## STRUCTURE AND PROPERTIES OF THERMALLY STABILIZED POLY(HEXAMETHYLENE ADIPAMIDE) AS CARBON FIBER PRECURSOR: X-RAY DIFFRACTION, TGA, AND FT-IR SPECTROSCOPY ANALYSIS

**Md. Mahbubor RAHMAN<sup>1</sup>**

*Bangladesh University of Textiles, Tejgaon, Dhaka, Bangladesh*

*<https://orcid.org/0000-0001-7104-9459>*

**Prof. Dr. Ismail KARACAN<sup>2,\*</sup>**

*Department of Textile Engineering, Erciyes University, Kayseri, Turkey*

*<https://orcid.org/0000-0002-9047-1011>*

### Abstract

Poly(hexamethylene adipamide) or polyamide 66 was utilized to perform thermal oxidation after chemical pretreatment with aqueous solution of boric acid, phosphoric acid, and urea (BPU). A two-step oxidative stabilization process at temperatures up to 245 °C was employed with different oxidation times including 30, 60, 90, 120, and 150 min, which cause major physical and structural alterations in the polyamide 66 (PA 66) fibers. In this work, X-ray diffraction (XRD), thermogravimetric analysis (TGA), and Fourier transform infrared (FT-IR) spectroscopy techniques, were employed to perform structural characterization of the pristine, and BPU integrated-oxidized samples. The results revealed that BPU integration improved the thermal stability of PA66 fibers prior to the carbonization stage. The study of the equatorial X-ray diffraction data revealed a continuous loss of crystalline structure, which is caused by disordering methods due to the hydrogen bond breakage of the PA66 structure. The TGA thermograms showed a relative improvement in the thermal stability of the PA 66 fibers by the increased carbon yield by the rise of the oxidation time. As a result of the simultaneously occurred dehydration and dehydrogenation reactions, the continuous loss of intermolecular and intramolecular hydrogen bonds was noticed from the FT-IR analysis.

**Keywords:** Poly(hexamethylene adipamide), oxidation, XRD, TGA, FT-IR spectroscopy.



## MODELING THE IMPACT OF LAND USE CHANGE ON THE HYDROLOGY OF A DRINKING WATER BASIN

F. Nihan DOGAN<sup>1,\*</sup>, M. Ekrem KARPUZCU<sup>2</sup>

<sup>1</sup>*Istanbul Technical University, Department of Environmental Engineering, Maslak, Istanbul, Turkey*

<sup>2</sup>*Istanbul Technical University, Department of Environmental Engineering, Maslak, Istanbul, Turkey*

### Abstract

Anthropogenic activities and land use/cover changes (LUCCs) are considered to be one of the main factors influencing watershed hydrology. LUCCs affect the hydrologic cycle by altering the hydrological responses including streamflow, surface runoff (SURQ), lateral flow (LATQ), groundwater flow (GWQ), percolation (PERQ), soil water (SW) and evapotranspiration (ET). In this study, LUCC scenarios were set up regarding possible future land use changes at the basin scale using SWAT model. The study area was selected as Karamandere Basin, Terkos which is one of the main drinking water basins of Istanbul. The basin is impacted by poor land management, residential development, deforestation and high agricultural activity. Deforestation, urbanization and expansion/ decrease of agricultural lands scenarios were applied and compared with the baseline scenario. Monthly hydrological calibration and validation of the model were conducted with the SWAT-CUP platform. Surface runoff was the main hydrological component that was impacted by LUCCs. Urbanization and conversion into agricultural lands scenarios resulted in considerable increases in surface runoff. Water yield did not show remarkable changes among the scenarios due to the combined effect of surface runoff, lateral flow and groundwater flow. The results of this study are intended to assist in managing and monitoring land use practices and preparing active water management plans in similar watersheds. Future studies will focus on the combined effects of land use change and climate change on watershed hydrology in the region to further gain insight into the management of water resources.



**GEORGIAN VITICULTURE-WINEMAKING – KARTLI AGROCLIMATIC ZONE****Chkhartishvili Nodari, Chkhartishvili Nino, Torotadze Soso***Academician of the Georgian Academy of Agricultural Sciences, Professor of the Georgian Technical University, Student of the Master's Program in Viticulture and Enology;***Abstract**

The scientific article discusses the brief descriptions of Kartli (agro-climatic, vineyard soils, vines of Kvemo, Shida Kartli and Meskheta). Describing the current state and prospects of microzones of appellation of origin;

Modern systems of vineyard cultivation and care, schemes and agro-technological directions, perspectives of grape seedling production and modern systems of vineyard cultivation, production of Kartli region;

**Key words:** Georgian Gene pool of grape, Vineyard, Clones.



## EZRAD BARCODE SPECIES VERIFICATION OF BLACK SHARKMINNOW *LABEO CHRYSOPHEKADION* (CYPRINIFORMES: CYPRINIDAE) IN THE LOWER MEKONG RIVER BASIN

Oanh Thi Truong<sup>1,2\*</sup>, Sang Quang Tran<sup>1</sup>, Van Ngo Thai Bich<sup>2</sup>, Binh Thuy Dang<sup>1</sup>

<sup>1</sup>Institute for Biotechnology and Environment, Nha Trang University, Khanh Hoa, Vietnam.

<sup>2</sup>Faculty of Chemical Engineering, The University of Danang- University of Science and Technology.

### Abstract

Black sharkminnow *Labeo chrysophekadion* (Cypriniformes: Cyprinidae) is one of large-sized Asian cyprinids, distributing throughout Mekong river and Chao Phraya basins to Malay-Indonesian Archipelago. Seven populations of *L. chrysophekadion* were collected across the Lower Mekong River Basin (3 sites from Laos, 2 sites from Vietnam, and one site from Cambodia and Thailand), plus one site from Chi river, Thailand. 228 libraries were generated using EzRAD techniques. To apply the RAD barcode for fish species identification, we assembled mitochondrial genomes, and aligned to the available reference genome from Genbank. Maximum likelihood phylogeny was constructed to investigate meta-mitochondrial genomes following fish populations. The results indicated six misidentified individuals (1 in Paske, 2 in Ubon Ratchathani, and 3 in Dong Thap), which subsequently removed from further analysis. The topology showed monophyletic clade of all meta-population of *L. chrysophekadion*, except one individuals from Paske, Laos (divergent 78%). Among the populations, fish from Pakse and Chi river placed in the same clade to reference genome of *L. chrysophekadion*, while Vietnamese population closed to Paksan (Laos), and Cambodia sister clade to Ubon Ratchathani (Thailand). RAD barcode provides an effective tool for accurate species identification at the population level, and should be applied in advanced genomics analyses.

**Keywords:** RAD barcode, EzRAD, *Labeo chrysophekadion*, Lower Mekong Basin.



## HARUKİ MURAKAMİ’NİN TUHAF KÜTÜPHANE ADLI ESERİNİN PSİKOLOJİK PERSPEKTİFLERİ

PSYCHOLOGICAL PERSPECTIVES OF THE STUDY CALLED THE STRANGE LIBRARY  
BY HARUKI MURAKAMI

**Dr. Canan COŞKUN**

*Milli Eğitim Bakanlığında öğretmen, Çamlıca Anadolu Lisesi Türkiye, Bursa*

### Özet

Dünyaca ünlü çağdaş Japon yazarlarından Haruki Murakami’nin kitapları gerçeklikle masal arasındaki ince bir çizgide geçiyor. Kitaplarında Murakami, bazı imgeler belirleyip ve parçaları sonradan birleştirerek bir olay örgüsü oluşturuyor. Kolay kelimeler seçip ustaca cümleler inşa ederek bir alegori oluşturuyor. Eserlerinde ana karakterler genelde bir şeyleri kaybetmiştir ve onu aramak zorundadır. Murakami’nin “Tuhaf kütüphane” başlıklı kitabı 2005 de Japonya’da ilk baskısını yaptı. 2016 yılında Türkçeye çevrildi. Kitaba yüzeysel bakıldığında sıradan görünümlü bir kütüphanede geçen adı üzerinde tuhaf, fantastik ve biraz da korku/gerilim unsurları içeren masalsı bir öykü kitabı olduğu görülür. Büyükler için yazılmış illüstrasyonlarla süslenmiş (Türkçe baskısında Kat Menshik’in illüstrasyonları kullanılmış) 62 sayfadan oluşan bu masalsı hikâyeyi okuduğumuzda aslında öyle olmadığını, herkesin okurken farklı anlamlar ve çözümlemeler yapabileceği psikolojik temelleri olan bir hikâyeyi barındırdığı gerçeği gün yüzüne çıkmaktadır. Okuyucusuna göre anlam kazanan hatta aynı okuyucunun farklı zamanlarda farklı anlam ve çözümlemeler yapabileceği psikolojik temelleri olan bu kitabı bu makalede yas ve travma açısından değerlendirilmesi yapılmıştır.

**Anahtar Kelimeler:** Alegori, Kaygı, Korku, Kayıp-Yas Süreci, Travma, Belirsiz, Muğlak kayıp, Fiziksel Kayıp, Psikolojik Kayıp, Grief

### Abstract

One of the world-famous contemporary Japanese writers, Haruki Murakami's books pass on a fine line between reality and fairy tale. In his books, Murakami creates a plot by identifying some images and then putting the pieces together. He creates an allegory by choosing easy words and constructing ingenious sentences. In his works, the main characters have often lost something and have to look for it. The book "The Strange Library", which was first published in Japan in 2005, was translated into Turkish in 2016. When the book is looked at superficially, it is seen that it is a fairy-tale story book with strange, fantastic and a bit of horror/tension elements on its name, which takes place in an ordinary looking library. When we read this 62-page fairy tale, which is decorated with illustrations written for adults (Kat Menshik's illustrations were used in the Turkish edition), the fact that it is not so, but that it contains a story with psychological foundations that everyone can make different meanings and analyzes while reading, comes to light. This book, which has a psychological basis that makes sense according to its reader and even the same reader can make different meanings and analyzes at different times, is evaluated in terms of grief and trauma in this article.

**Keywords:** Allegory, Anxiety, Fear, Loss-Mourning Process, Ambiguous Loos, Physical loos, Psychological loos, Grief



## THE FOUNDATIONS OF AESTHETICS IN THE TEXT IN THE VISION OF THE POET “MAEDUMI”

**Hawzhen Slewa Issa , Ala Dara Abdul Majed**

*Koya University, Faculty of Education, Kurdish Department, Koya – Arbil , Iraq.*

### **Abstract**

Ideal aesthetics as a source for all other genres is a product of Plato's philosophical imprints, It has effects on the vision of philosophers and their vision of the world, art, humanity and literature .And after centuries and thousands of jurisprudence until the emergence of eco-feminism ,Which is the latest cultural, literary and global approach in our world now .So that its roots reached the combination of literature, race, religions and coexistence In order to create a new beautiful world centered around improving The conditions of the world and anarchic living through the principles of ideological and realism at the same time .

Aesthetics remains the only bright face that shines in all situations and at every creator , Each one is as creative and enthusiastic as possible and increases his own footprint in his work. There we see the beauty of aesthetics in the Kurdish poet “ Maedoumi” .Where it has the advantages and accuracy of static systems and a line between the spirit of western and eastern static at the same time So that we see in poetic examples a mixture between the greatest views of the philosophers on aesthetics Knowing that he was a poet in a high-rise area that is difficult to reach, but the aesthetics of the region and his own ideology ,He made his poems an ideal and realistic aesthetic treasure.

This research includes two parts: The first part gives a vision of aesthetics for philosophical and poetic text. And the opinions of the great philosophers, as well as in the East, and their amalgamation, The second part includes an explanation of the poetic text according to aesthetics In terms of the principles of aesthetic sciences and eco- feminism.

**Keywords:** Aesthetics, vision, eco- feminism, poet “ Maedumi”.



**ARKAİK İNSANDA KAOTİK DÜNYA ALGISI: SÜMER VE TÜRK MİTOLOJİLERİNDE İFRİTLER****THE PERCEPTION OF THE CHAOTIC WORLD IN ARCHAIC MAN: DEMONS IN SUMERIAN AND TURKISH MYTHOLOGIES****Dr. Öğr. Üyesi Begüm KURT**

Dr. Öğr. Üyesi Begüm KURT, Çağ Üniversitesi Fen Edebiyat Fakültesi Türk Dili ve Edebiyatı Bölümü Yenice/MERSİN, ORCID ID: 0000-0002-4509-5125.

**Özet**

Farklı düşünce evrenlerindeki mitolojik algıyı; ifade, kahraman ve motifleri, mütekabil biçimde ulusal ve evrensel düzenleriyle değerlendiren mitolojik incelemeler toplumların özgün yanlarını, birbirleriyle olan etkileşimlerini açığa çıkarmak bakımından önemlidir. Başka süreçler yaşamış, değişik yaşantılara sahip toplumlarda görülen benzerlikler insanoğlunun müşterek kıymetlendirme ve anlam verme serüvenini yansıtmaktadır. Bu anlam verme sürecinde insanoğlu doğayı ve her bir parçasını kutsal-kutsal olmayan, iyi ve kötü, sakıncalı-yararlı olarak ayırmıştır. Hükmedemediği, çözemediği esrareniz olayların, doğaüstü durumların sebeplerini de bu düşünceyle ayıştırmıştır. Bu eksende mitolojik düşüncenin bir parçasını demonolojik varlıklar teşkil etmektedir. Türk ve Sümer mitolojileri söz konusu varlıklar bakımından dikkat çekici sahalardır. Belirli özelliklerle öne çıkan bu olağanüstü yaratıklar Türk ve Sümer toplumunun anlamlandırma sistemlerinde zihinsel sembolik birer görüntü olarak otantik yönleri sahiptir. Arkaik düşünce iyi ve kötünün ait olduğu aydınlık ve karanlık dünya tasavvurunu benimsemiştir. Bu zıt dünyalara ait varlıklar neredeyse bütün dünya mitlerinde dünyanın yaratılışından itibaren konu edilmiş ve mitlerin önemli unsurları haline gelmiştir. Karanlık ve zulümle ilişkilendirilen varlıklar yani ifritler, iyilik ve aydınlık dünyanın varlıklarıyla bir bütünün ayrı parçalarını oluşturmuştur. İyilerin takdirini, faydasını sağlamak için yapılanlar ile kötülerin vereceği zarardan korunmak için yapılanlar arkaik insanın yaşantısını düzenlemiştir. Dolayısıyla dünyayı algılama çabası içinde ifritlere öz algıya bağlı olarak özel anlam verilmiştir. Bu bağlamda çalışmada karşılaştırmalı mitoloji yöntemi ile Türk ve Sümer mitolojilerinde demonolojik varlıklar incelenmiş, bu farklı mitolojik sahalardan tespit edilen ifritlerin ortaya çıkış biçimleri, varlık alanları, çeşitleri, özellikleri, etkileri ve bunlarla mücadele etme yöntemleri değerlendirilmiştir. Böylece insanoğlunun korku ve kaygı duygularıyla yarattıkları bu varlıklarla ilgili veriler ve kontrol altına alma istekleriyle biçimlendirdikleri bilgi sistemleri açığa çıkarılmaya çalışılmıştır.

**Anahtar Kelimeler:** Karşılaştırmalı mitoloji, Türk mitolojisi, Sümer mitolojisi, ifrit, şeytan.

**Abstract**

Mythological studies that evaluate mythological perception in different universes of thought are important in terms of expression, heroism and motives, in a variable form with their national and Universal Order, revealing the original aspects of societies and their interaction with each other. The similarities seen in societies that experience other processes and have different lives reflect a person's adventure to value and give meaning. In this process of making sense, humanity has divided nature and every part of it into sacred-unholy, good and evil, objectionable-useful. He also parsed the causes of mysterious events, supernatural situations that he could not manage or solve with this idea. Demonological beings form part of mythological thought on this axis. The Turkish and Sumerian mythologies are remarkable places for these beings. These extraordinary creatures, which stand out with certain characteristics, have authentic aspects as mental symbolic images in the meaning systems of Turkish and Sumerian society. Archaic thought has embraced the idea of a light and dark world to



which good and evil belong. Beings belonging to these opposing worlds have been the subject of almost all world myths since the creation of the world and have become important elements of myths. Beings associated with darkness and cruelty, that is demons formed separate parts of the whole with beings of the world of good and light. What was done to ensure the appreciation and benefit of the good, and what was done to protect the harm of the bad, regulated the life of an archaic man. Therefore, in the effort to perceive the world, demons are given a special meaning depending on self-perception. In this context, Turkish and Sumerian mythology assets demonolojik method determined by comparative mythology, output formats, entity fields, types, properties, and effects of these different methods of mythological defined their struggle with the demon of the field were evaluated. In this way, data about these beings created by human feelings of fear and anxiety and information systems created by the desire to control were tried to be revealed.

**Keywords:** Comparative mythology, Turkish Mythology, Sumerian mythology, devil, demon.



## IMAGINARY SPECIAL EFFECTS IN THE CLASSICAL ROMANTIC GESAMTKUNSTWERK FANTASY

KLASİK ROMANTİK GESAMTKUNSTWERK DÜŞLEMİNDE  
HAYALİ ÖZEL EFEKTLER

LEMAN BERDELI

Sapienza Università di Roma

PhD, Department of History of Art and Performance

ORCID NO :0000-0002-7924-8177

### Abstract

This study aims to contribute to the field of contemporary art-technology by leaving a historical-artistic touch in line with the function of the fine arts on our ‘senses’ that were conceived, imagined, and took place on the stage by dint of human labor and creative ability during the absence of technology. The prominent outcome shows that an integrated Opera where optics and acoustics dominate and the production of spectacular effects depends more on the art of the stage machinist is among the auditory-visual spectacles of the scene that one which has the most need for ‘artificial visions’. The study has shown that the ideal of achieving a holistic work of art, by aestheticizing the ‘scenic space’ has been stated by the Italian scenographer Pietro Gonzaga (1751-1831) in one of his several theoretical treatises: “*À Propos d'Optique Théâtrale*” (*About Theatre Optics*) stamped in 1807 in St. Petersburg before Richard Wagner's (1813–1883) conception of the total work of art has been professed. The scenographer has particularly considered that the stage which contains the show and its simulation in the place where the event takes place could itself be expressive. The study concludes by referring to the clairvoyant point of view of a scenographer who could be regarded as the pioneer of modern day directing art, that the total work of stage art took place in 18th -19th centuries is envisaged to function as a kind of television screen.

**Keywords:** artificial-vision, perception, scenography, expressionism

### Özet

Bu çalışma teknolojiye yoksun bir çağda insan emeği ve yaratıcı yeteneği sayesinde tasarlanan, hayal edilen ve tiyatro sahnesinde yer bulan güzel sanatların duyularımız üzerindeki işlevlerinin incelenmesi doğrultusunda tarihsel-sanatsal bir dokunuş bırakarak çağdaş sanat-teknoloji alanına katkıda bulunmayı amaçlamaktadır. Optik ve akustik hâkim olduğu ve ‘özel efekt’ üretiminin genelde makinistin sanatına bağlı olduğu entegre bir Opera, işitsel-görsel sahne gösterileri arasında ‘yapay vizyonlara’ en çok ihtiyaç duyanıdır. Çalışmanın öne çıkan fikri, sahne bütünü estetikleştirerek bütüncül bir sanat eseri elde etme idealinin, Richard Wagner’in (1813–1883) bütünlüklü sanat eseri yaratma anlayışından önce İtalyan senaryo yazarı Pietro Gonzaga (1751-1831) tarafından “*À Propos optique Théâtrale*” (*Tiyatro Optiği Hakkında*) teorik incelemesinde ifade edildiğini göstermiştir. Stenograf gösteriyi içeren sahne ve simülasyon bütünü dıřavurumcu bir etki yaratacak biçimde tasarlanması gerektiğini ileri sürmüştür. Bu çalışmada günümüz sanat yönetmenliği sanatının öncüsü sayılabilecek bir stenografin durugörü bakış açısına değinerek, 18-19. yüzyılları bütünlüklü sahne sanatının bir nevi televizyon ekranı işlevi görmesinin öngörüldüğü sonucuna varılmaktadır.

**Anahtar Kelimeler:** yapay görüntü, algı, stenografi, dıřavurumculuk



## КОМПЛЕКСНЫЙ ПОДХОД В ОБУЧЕНИИ ДИРИЖИРОВАНИЮ КАК ОСНОВА РАЗВИТИЯ ТВОРЧЕСКОЙ ЛИЧНОСТИ БУДУЩИХ УЧИТЕЛЕЙ МУЗЫКИ

### INTEGRATED APPROACH IN TEACHING CONDUCTOR AS THE BASIS FOR THE DEVELOPMENT OF THE CREATIVE PERSONALITY OF FUTURE MUSIC TEACHERS

**Aliyeva Maralkhanim Tofig gizi**

*Doctor of Philosophy in Pedagogy, Senior Lecturer*

*Azerbaijan State Pedagogical University*

*Faculty of Arts and Physical Education*

*Department "Music and technology of its teaching"*

*Azerbaijan, Baku city, Uzeyir Hajibeyov street, 68*

*ORCID ID: 112233*

#### **Аннотация:**

В статье указывается на необходимость развития творческих способностей у будущих учителей музыки на уроках дирижирования. Отмечается, что воспитание творческой личности становится одной из важнейших задач, стоящих перед музыкальной педагогикой. Решение этой проблемы требует комплексного подхода к обучению, т.е. применения традиционных, специфичных музыкальных и инновационных методов преподавания с опорой на общепедагогические принципы обучения. В статье предлагается ряд методов и технологий в сочтанном виде по формированию творческих способностей студентов дирижёрского класса.

Среди современных методов обучения с большим успехом на уроках дирижирования может применяться интегративный метод с использованием компьютерных музыкальных программ, которые привлекают внимание студентов к богатой информации о различных видах искусства. В тоже время они дают возможность прослушивать изучаемую в классе музыку и просматривать фрагменты концертов, фильмов, проводить сравнительный анализ различных исполнений.

Для развития творческого потенциала студентов необходимо высокое интеллектуальное развитие, определённый объём знаний, уровень интеллектуальных способностей, наследственные и врождённые задатки. Следовательно, обучение в дирижерском классе должно идти по пути развития интеллектуальных способностей, увеличения объёма знаний, которые желательно, чтобы студент добывал самостоятельно, а преподаватель подталкивал его к этому различными вопросами и заданиями. Так, большое значение для адекватной интерпретации произведения имеет историческая и биографическая информация об авторах произведения. Поэтому студентам нужно предложить самостоятельный сбор информации (проблемно-поисковый, исследовательский методы). Также при аналитической работе над хоровой партитурой нужно использовать проблемно-поисковый метод. Давать такие задания на дом, чтобы у студента развивались исследовательские качества.

В статье указывается на необходимость развития дивергентного мышления при формировании технических навыков. Например, обучая навыкам аутфакта, синкопы или других технических приёмов необходимо сначала показать студенту все виды этих приёмов, а для конкретного произведения он должен уметь сам выбрать нужные из них. Творческая самостоятельность в учебной деятельности студентов формируется путем применения ранее полученных навыков и умений в новой форме и новых условиях. В этом аспекте самостоятельную работу над новым музыкальным произведением можно



рассматривать как способ вовлечения студентов в самостоятельную учебно-художественную деятельность.

**Ключевые слова:** дирижирование, творческие способности, инновационные методы

**Abstract:**

The article points out the need to develop the creative abilities of future music teachers in conducting lessons. It is noted that the upbringing of a creative personality is becoming one of the most important tasks facing musical pedagogy. Solving this problem requires an integrated approach to learning, which implies the use of traditional, specific musical and innovative teaching methods based on general pedagogical principles of teaching. The article proposes a number of methods and technologies in a combined form for the formation of creative abilities of students of the conducting class.

Among modern teaching methods, with great success in conducting lessons, the integrative method can be applied using computer music programs, which draw the attention of students to a wealth of information about various types of art. At the same time, they make it possible to listen to the music studied in the classroom and view fragments of concerts, films, and conduct a comparative analysis of various performances.

For the development of the creative potential of students, high intellectual development, a certain amount of knowledge, the level of intellectual abilities, hereditary and innate inclinations are necessary. Consequently, training in a conductor's class should go along the path of developing intellectual abilities, increasing the amount of knowledge that it is desirable for the student to acquire on his own, and the teacher pushed him to this with various questions and tasks. Thus, historical and biographical information about the authors of the work is of great importance for an adequate interpretation of the work. Therefore, students need to be offered an independent collection of information (problem-search, research methods). Also, during analytical work on a choral score, it is necessary to use the problem-search method. Give such homework assignments so that the student develops research qualities.

The article points out the need to develop divergent thinking in the formation of technical skills. For example, teaching the skills of autotact, syncope or other technical techniques, it is necessary to first show the student all types of these techniques, and for a specific work he should be able to choose the necessary ones himself. Creative independence in the educational activities of students is formed through the application of previously acquired skills and abilities in a new form and new conditions. In this aspect, independent work on a new piece of music can be viewed as a way to involve students in independent educational and artistic activities.

**Key words:** conducting, creativity, innovative methods



**FEATURES OF THE ORIGIN OF AZERBAIJANI ORONYMS****AZERBAYCAN ORONİMLERİNİN KÖKENİNİN ÖZELLİKLERİ****Naila Yusifova***Doctor of Philosophy in Philology, Senior Lecturer  
Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan  
ORCID: ID/ 0000-0002-3008-7536***Abstract**

Azerbaijanis of Turkic origin took part in the establishment of Azerbaijani oronymy. However, ethnic composition is also a key factor here. This can be seen in the oronyms of Turkish origin, Caucasian origin, Iranian origin and other languages in the oronymy of Azerbaijan.

Azerbaijani oronymy includes oronyms belonging to the languages of the peoples of Dagestan, including Lezgi, as well as Iranian-speaking Talysh and Tat. However, a small number of Sahurs, Khinaligs, Buduks, Gryzs, Udins, etc. The peoples left almost no trace in the formation of Azerbaijan's macroeconomics. The article provides information on oronyms of Turkish origin, Iranian oronyms, including Tatar oronyms, Dagestani oronyms, Lezgidy oronyms, Russian oronyms and Talysh-language oronyms, and analyzes examples. Oronyms of unknown origin can also be found in Azerbaijani oronymy. The etymological analysis of the oronyms Absheron, Ajidara, Aghdagh, Ahudag, Alaciki is involved here.

One of the interesting oronyms is Absheron oronym. It is the largest peninsula in Azerbaijan, on the west coast of the Caspian Sea. It is at the south-eastern end of the Caucasus. Baku city and surrounding villages are located on the Absheron Peninsula. There are various hypotheses about the etymology of this word. Some believe that the word Absheron is derived from the Persian words ab "water" and sharon "salty". According to many scholars, the word Absheron is associated with the name Avshar / Afshar Tafa, one of the Oghuz tribes. According to sources, there was a settlement called Afsharan on the caravan road from Iran to Derbent near Baku. Medieval sources give information about the existence of the Afsharan area in front of Pirallahi Island on the west coast of the Caspian Sea. The Afshars, who joined the Oghuz-Seljuk tribal union and took part in the ethnogenesis of the Azerbaijani people, played an important role in the political life of the Safavid state. In the 18th century, during the reign of Nadir Shah Afshar, they were able to seize power in Iran for some time. In this case, the name of the Afshars could not be reflected in the toponymy of Azerbaijan. We think that it is more appropriate to explain the toponym of Absheron as "the place where Afshars live".

The creation of oronyms, which are the product of human thought, is a national and spiritual wealth, a manifestation of the material way of life. Oronyms are a very valuable source for the study of the mythology, language, history, customs and socio-geographical nature of the economic life of the peoples inhabiting the territory of Azerbaijan.

**Keywords:** oronyms, etymological analysis, toponyms, Azerbaijan

**Özet**

Türk kökenli Azeriler, Azerbaycan oronimlerinin (dağ isimlerinin) oluşumunda yer aldı. Ancak burada etnik yapı da önemli bir faktördür. Bu, Azerbaycan oronimindeki Azerbaycan kökenli, Kafkas kökenli, İran kökenli ve diğer halkların dillerindeki oronimlerde görülebilir.



Azerbaycan oronimi, Lezgi de dahil olmak üzere Dağıstan halklarının dillerine ve ayrıca İranca konuşan Talish ve Tats'a ait oronimleri içerir. Ancak az sayıda Sahur, Khinalig, Buduk, Gryz, Udin vb. Azerbaycan makroekonomisinin oluşumunda halklar hemen hemen hiçbir iz bırakmamışlardır. Makale, Tatar asıllı adları, Dağıstan asıllı adlar, Lezgi adları, Rusça adlar ve Talış dilindeki adlar da dahil olmak üzere Türkçe kökenli sözcükler, İran kökenli sözcükler hakkında bilgi vermekte ve örnekleri analiz etmektedir. Azeri oronimide kökeni bilinmeyen oronimler de bulunabilir. Burada Abşeron, Acıdərə, Ağdağ, Ahudağ, Alaciki adlarının etimolojik analizi yer almaktadır.

İlginç isimlerden biri de Abşeron ismidir. Hazar Denizi'nin batı kıyısında, Azerbaycan'ın en büyük yarımadasıdır. Kafkasya'nın güneydoğu ucundadır. Bakü şehri ve çevresindeki köyler Abşeron Yarımadası'nda yer almaktadır. Bu kelimenin etimolojisi hakkında çeşitli hipotezler vardır. Bazıları Abşeron kelimesinin Farsça ab "su" ve sharon "tuzlu" kelimelerinden türetildiğine inanır. Birçok bilim adamına göre Abşeron kelimesi, Oğuz boylarından biri olan Avşar/Afşar Tafa adıyla ilişkilendirilir. Kaynaklara göre Bakü yakınlarında İran'dan Derbent'e giden kervan yolu üzerinde Afşaran adında bir yerleşim vardı. Orta Çağ kaynakları, Hazar Denizi'nin batı kıyısında Pirallahi Adası'nın önündeki Afşaran bölgesinin varlığı hakkında bilgi vermektedir. Oğuz-Selçuklu aşiret birliğine katılan ve Azerbaycan halkının etnogenezinde yer alan Afşarlar, Safevi devletinin siyasi hayatında önemli rol oynamışlardır. 18. yüzyılda Nadir Şah Afşar döneminde İran'da bir süre iktidarı ele geçirmeyi başardılar. Bu durumda Afşarların adı Azerbaycan yer adlarına yansıtılamamıştır. Abşeron'un yer adının "Afşarların yaşadığı yer" olarak açıklanmasının daha uygun olduğunu düşünüyoruz.

İnsan düşüncesinin ürünü olan deyimlerin yaratılması, milli ve manevi bir zenginliktir, maddi hayatın bir tezahürüdür. oronims, Azerbaycan topraklarında yaşayan halkların ekonomik yaşamının mitolojisi, dili, tarihi, gelenekleri ve sosyo-coğrafi doğasının incelenmesi için çok değerli bir kaynaktır.

**Anahtar Kelimeler:** Oronimler, etimolojik analiz, Toponimi, Azerbaycan



## THE CONNOTATIONS OF JAPANESE WORDS WRITTEN IN KANJI ALPHABET: A “COLOR”FUL REPRESENTATION

Asst. Prof. Dilşah KALAY<sup>1\*</sup>, Lect. Turgut KALAY<sup>2</sup>

<sup>\*1</sup>*Kütahya Dumlupınar University, School of Foreign Languages, Kütahya, Turkey.*

<sup>2</sup>*Mimar Sinan Fine Arts University, Inst. of Science & Tech., Dep. of Interior Architecture, Istanbul, Turkey.*

### Abstract

Similar to the other Asian societies such as Korean and Chinese, Japanese people have a different and unique way of expressing themselves when it comes to written communication. To explain, the Japanese writing system is composed of three alphabets: Hiragana, Katakana, and Kanji. These alphabets are differentiated not only by their appearances but also by their practical use. Hiragana (ひらがな) and katakana (カタカナ) are pure Japanese inventions whereas Kanji (漢字) is derived from Chinese language (Jones & Aoki, 1988). Hiragana alphabet is utilized primarily for representing Japanese words and regarding the foreign vocabulary such as television (テレビ) or radio (ラジオ), katakana alphabet is applied for word representations. On the other hand, kanji symbols, consisting of more than 8,000 characters, are used in order to represent an abstract concept, a name and/or a general word. Each kanji symbol may have multiple meanings, and they can also be combined to create another concept or word. Within the scope of this study, the connotative meanings of Japanese words with kanji representations are discussed. Three beginner-level Japanese language learners as well as three students of interior architecture, deeply enthusiastic about learning Japanese culture, have participated in the study. The first group has determined some Japanese words and explained how kanji symbols are related to the word meanings, and the second group has represented these words using “colors”. As a result, three works of art are presented with this interdisciplinary study.

**Keywords:** Japanese language, kanji representations, colors



## DIFFICULTIES IN TRANSLATION OF TECHNICAL TERMS

<sup>1</sup>Asst. Prof. Ulviyya Nasirova, <sup>1</sup>Samira Hasanova, <sup>1</sup>Fidan Naghiyeva  
<sup>1</sup>*Odla Yurdu University, Chair of Languages, Baku, Azerbaijan*

### Abstract

This article is devoted to discussion of problems associated with the translation of technical terms. Moreover, the research analyzes peculiarities and difficulties of translation of technical texts in general, and terminology in particular, identification of difficulties encountered in the translation of technical terminology. The theoretical significance of the given article is due to the importance of research and study of the specifics of the translation of technical terminology. As for the practical significance, it consists in the fact that anyway the translator sometimes has to deal with technical terms, and at the same time with the difficulties of technical translation, without knowledge of which many mistakes can be made, even if he is fluent in a foreign language. The scientific novelty of this article lies in the fact that, due to technical progress, more and more terms appear every day in various fields of knowledge, and the need to develop a clear algorithm for translating technical terminology is growing. In this regard, this research paper can be a good guide for translating terms of varying degrees of complexity.

Today, issues related to the translation of technical terminology are of great interest to specialists. Technical translation always occupies a special place among other types of translation. This type of translation is used to exchange information containing special, technical terms that always cause difficulties in their translation. With the help of technical translation, many specialists share their experience, knowledge and best practices in various fields. The purpose of this work is to identify the difficulties encountered in the translation of scientific and technical terminology.

**Keywords:** technical terms, knowledge, technical translation, foreign language, terminological phrases

### Abstract

In this project, I study and analyze discourses of the Kazakh-speaking online users about the Russian language and its speakers in Kazakhstan, review language-related trends and their reflections in changing linguistic landscapes and movements aimed at promotion, use, and strengthening Kazakh as a state language. I also examine reactions of the local Chechen-Ingush speaking minority to the anti-Russian discourses and linguistic changes currently happening in Kazakhstan. I argue that the Kazakh-speaking online users as representatives of a majority group and the Chechen-Ingush diaspora members as representatives of a minority group in Kazakhstan have different views on the role and status of the Russian language due to the difference in ideologies associated with linguistic, historical, social and political factors. I made an overview of current linguistic trends and news associated with local linguistic situation and governmental actions; collected discourse examples in Kazakh and Russian from the public posts or comment sections online; conducted interviews with the representatives of the Chechen-Ingush minority in Kazakhstan. The results show that the language-related processes include Russian language and Cyrillic script erasure, language downgrading, replacement of Russian by English, online language regulation, Latinization of Kazakh and its branding, which are based on and supported by the paper of Aneta Pavlenko (2009). As for the ideologies, the Russian language is mostly viewed as an aggressor and a threat to Kazakh identity, to the stability and development of the Republic. Also, Russian is equated with Russian political



aggression, but implying the aggression of the Soviet regime. The reactions of Chechen-Ingush interviewees on linguistic changes show that people want the Kazakh language to develop, but no one wants Russian to be eliminated since it plays a major role in their lives as a language of international communication and as a connection to other Kazakhstani citizens.

**Keywords:** Russian in Kazakhstan, language ideologies, online language use.



## THE ROLE OF MULTICULTURALISM ON THE DIALOGUE OF CIVILISATIONS: THE AZERBAIJANI PERSPECTIVE

**Togrul Refail SALMANZADE**

PhD candidate at Baku State University

Scientific researcher at Azerbaijan National Academy of Sciences

### Abstract

Multicultural policies can enhance political, economic and cultural security, interstate and also intercultural relations if it is thoroughly followed and supported by legislation. Multiculturalism is the first step towards the dialogue of civilizations as it is creating the source model of intercultural cooperation and mutual trust among states.

The emergence of multiculturalism in Azerbaijan began with establishing public administration on a multi-ethnic, secular model after independence, even though the vast majority of the population is Turkish-Muslim. In the following period, this policy proved to be a successful model for security and stability in Azerbaijan, which is located in a susceptible region. This all-inclusive model of policy created invaluable opportunities to construct national identity. Protection of ethnic diversity allows us to act as a more reliable partner in relations with other countries. Looking at the ethnic roots of the people living in Azerbaijan, there are representatives of neighbouring Georgian, Armenian, Russian, numerous Caucasian peoples, and even Jews.

The existence of different cultures and civilisations does not necessarily mean they have to be in conflict and confrontation to protect their national identity. While referring to Samuel Huntington's (1993) infamous concept of "us and them" it should be noted that it is possible to preserve national identity while cooperating common values with other countries, regions, even civilisations. The existing heterogeneous national identity policies and multiculturalism create essential opportunities for the development of intercivilizational relations.

Comparing the phenomena of intercultural dialogue and multiculturalism comes to a result that multiculturalism means the integration of domestic cultures and ethnic groups. Successful implementation of multicultural policies consents to the dialogue of civilisations at the global level. The ethnic composition of modern states confirms that no country is monoethnic, and ethnic minorities living in any country's territory are often representatives of the ethnic majority of a neighbouring country. In this case, the implementation of multicultural policies within the countries creates a basis for the development of diplomatic relations at the regional and international levels and dialogue among civilisations in the future.

**Keywords:** Azerbaijan, civilisations, civilizational dialogue, multicultural policies



**DIFFERENT MULTI-SCALE FEATURE MAPS FOR OBJECT DETECTION****Jothiaruna N<sup>1</sup>, Anny Leema A<sup>2</sup>***<sup>1</sup>Vellore Institute of Technology, Research Scholar, SITE, Vellore, India**<sup>2</sup>Vellore Institute of Technology, Associate Professor Grade 1, SITE, Vellore, India***Abstract**

In a convolution neural network, object detection is the main challenging problem. Detecting the object using different multi-scale feature maps is recently evolving today. Images are resized into multiple scaling factors and for the training, processed images are resized into equal ratios. Different feature map techniques are used to scaling the images, they are featured image pyramid, Single feature map, Pyramidal Feature Hierarchy, and Feature Pyramid Network. Feature Pyramid Network (FPN) follows a top-down approach and also it gives higher accuracy when compared to other features maps while extracting the features. The application of different feature extraction techniques is discussed and each extraction is compared with other extraction techniques.

**Keyword:** Feature extraction, Feature Pyramid Network, Application.



**EFFECTED FACTORS OF OPP LABELLING PERFORMANCE**

**Kadir Mert ÜNLÜ**  
**Sinan ÇALIŞKAN**

ORCID: 0000-0003-3669-1424<sup>1\*</sup>,

ORCID: 0000-0003-4220-774X<sup>2</sup>

<sup>\*1</sup>Ektam Machinery, R&D Center, Izmir, Turkey

<sup>2</sup>Ektam Machinery, R&D Center, Izmir, Turkey

**Abstract**

In today's our modern world, consumption of any product increases day by day. Increment of consumption causes to consist of many suppliers or producer of consumable and this case creates a competition environment between companies. To step forth, companies operate in something and all these things are called marketing. Marketing activities could be on TV's, on Billboards or on the product. Marketing on the product happens because of label. Label is strip that has some information about product and its own characteristic design to attract attention of customers. All products especially beverages have its own label and in its production lines, there is a labelling process. This process happens by using labeling machine that can work with a kind of label. OPP label that is attached on the product by using glue, is the one of used labels on the product. Either consumable producers or labelling machine manufacturers want to label at high capacity by decreasing operating cost and keeping labelling quality high. To achieve these aims, there are some factors such as material of OPP label, selection, temperature and viscosity of glue, harmony between glue and label, label heating methodology and movement and velocity of bottle when it contact to glued label etc. At the labeling machine field, all manufacturers try to control these mentioned factors to get the best performance from labelling machine and quality labeling process. In this study, these entire factors will be revealed and their effect on OPP labelling performance will be evaluated.

**Keywords:** OPP Label, Temperature and Viscosity of Glue, Contact Movement and Velocity.



## PNOISE AND THE IMPORTANCE OF WIND TURBINE NOISE PREDICTION

Sara Rodriguez<sup>1\*</sup>, Joseph Youssif Saab Junior<sup>2\*\*</sup>, Alexandre Martuscelli de Faria<sup>3\*\*\*</sup>, Marcos de Mattos Pimenta<sup>4\*\*\*\*</sup>

<sup>1</sup>*Sao Paulo State University (Poli-USP), Department of Mechanical Engineering, Sao Paulo, Brazil.*

*ORCID 0000-0002-8913-0375*

<sup>2</sup>*Maua Institute of Technology (IMT), Department of Mechanical Engineering, Sao Paulo, Brazil.*

*ORCID 0000-0003-3450-4285*

<sup>3</sup>*Sao Paulo State University (Poli-USP), Department of Mechanical Engineering, Sao Paulo, Brazil.*

*ORCID 0000-0003-1540-6057*

<sup>4</sup>*Sao Paulo State University (Poli-USP), Department of Mechanical Engineering, Sao Paulo, Brazil.*

### Abstract

The concern with the environment led to the need to change the global energy matrix so that the search for renewable energy sources encouraged the expansion of the wind industry. Due to the strong incentive and generating potential, wind energy has become a strong competitor against pollution generated by fossil fuels. With the growth of the wind market and the expansion of cities, some onshore wind farms approached the surrounding populations in order to negatively impact the health of the local population, mainly due to the aerodynamic noise emitted by the wind turbine blades. The impact on local fauna of wind turbines installed offshore has also been researched. This paper presents the main impacts caused by noise in the vicinity of wind farms and the need to carry out noise prediction studies in the initial phases of the design of these wind farms. Related legislation is also presented to minimize this impact. Aerodynamic noise can be divided into five types, according to BPM studies, as well as this can be mitigated with the contribution of turbine efficiency improvement. Thus, the noise prediction module PNoise, integrated with the QBlade application, has become an important tool for researchers in order to design quieter and more efficient wind turbine blades. This paper also introduces the PNoise module and its functionalities.

**Keywords:** Wind Turbine Noise, QBlade, PNoise, BPM, Self Noise, Noise Sources



## TECHNO-ECONOMIC ANALYSIS OF AN OFF-GRID HYBRID ENERGY SYSTEM WITH HOMER PRO

### ŞEBEKEDEN BAĞIMSIZ HİBRİT BİR ENERJİ SİSTEMİNİN HOMER PRO İLE TEKNO- EKONOMİK ANALİZİ

**Lecturer Dr. Ahmet Erhan AKAN<sup>1\*</sup>**

*<sup>1</sup>Tekirdağ Namık Kemal University, Çorlu Vocational School, Department of Machine and Metal  
Technologies, Tekirdag, Turkey.  
ORCID NO: 0000-0003-1806-7943*

#### Abstract

The decrease in fossil-based energy sources and increasing environmental problems are increasing the tendency to renewable energy sources day by day. The potential of renewable energy sources differs according to the region where the energy will be produced. For this reason, it is crucial to conduct a good feasibility study that deals with the selected systems from a technical and economic point of view before making an investment decision on energy conversion systems based on renewable energy sources.

In this study, the most suitable equipment and capacities were investigated by examining the techno-economic analysis of a hybrid system created with wind-solar renewable energies for a detached house, which is considered to be off-grid, in a rural area of Tekirdağ province (40°58.7' N, 27°30.7' E). Investigations were carried out using the HOMER Pro (Hybrid Optimization Model for Electric Renewable) program. The wind and solar energy potential of Tekirdağ province were obtained from the NASA renewable energy resources database added to the HOMER Pro program. The annual electricity requirement of the sample house was chosen as 11.27 kWh, and the current peak electrical load was chosen as 2.39 kW. There is a wind turbine connected to the AC busbars, solar collectors and battery group connected to the DC busbars, and a converter that converts energy between AC and DC busbars in the energy conversion system. In order to determine the optimum capacities of the system elements, 114944 different simulations were performed by HOMER Pro. The selection of the most suitable system among these was determined according to the lowest net present cost (NPC) value. In addition, the energy production capacities that will occur in the case of different wind speeds were also investigated. Accordingly, the system to be installed with a solar panel with a capacity of 6.25 kW, PV-MPPT with a capacity of 1 kW, 2 wind turbines with a capacity of 1 kW, 8 Lithium-ion batteries with a capacity of 6V-167 Ah, and a converter with a capacity of 2.5 kW has been determined will generate electrical energy of 5433 kWh per year. In addition, it has been determined that 61.8% of this produced energy will be obtained from solar energy and 38.2% from wind energy, and the simple payback period of the investment will be 14 years. It is thought that this study will provide valuable information to researchers and investors.

**Keywords:** Hybrid energy systems, Renewable energy, Techno-economic analysis, HOMER Pro

#### Özet

Fosil kökenli enerji kaynaklarının azalmaya başlaması ve artan çevresel sorunlar, yenilenebilir enerji kaynaklarına yönelimi her geçen gün arttırmaktadır. Yenilenebilir enerji kaynaklarının potansiyeli ise enerjinin üretileceği bölgeye göre farklılıklar göstermektedir. Bu nedenle yenilenebilir enerji



kaynaklarına bağılı enerji dönüşüm sistemlerine yatırım kararı verilmeden önce seçilen sistemleri teknik ve ekonomik açıdan ele alan iyi bir fizibilite çalışması yapılması çok önemlidir. Bu çalışmada, Tekirdağ ilinin kırsal bir bölgesinde (40°58,7' K, 27°30,7' D), şebekeden bağımsız olduğu kabul edilen müstakil bir konut için rüzgar-güneş yenilenebilir enerjileri ile oluşturulan hibrit bir sistemin tekno-ekonomik analizleri incelenerek en uygun ekipmanlar ve kapasiteleri araştırılmıştır. İncelemeler HOMER Pro (Hybrid Optimization Model for Electric Renewable) programı kullanılarak gerçekleştirilmiştir. Tekirdağ ilinin rüzgar ve güneş enerjisi potansiyeli, HOMER Pro programına eklenmiş olan NASA yenilenebilir enerji kaynakları veri tabanından elde edilmiştir. Örnek alınan konutun yıllık elektrik ihtiyacı 11,27 kWh ve anlık en yüksek elektrik yükü (peak) 2,39 kW olarak seçilmiştir. Enerji dönüşüm sisteminde, AC barasına bağılı bir rüzgar türbini, DC barasına bağılı, güneş kolektörleri ve batarya grubu, AC ve DC baraları arasında enerji dönüşümü yapan bir konvertör bulunmaktadır. Sistem elemanlarının optimum kapasitelerinin belirlenebilmesi için HOMER Pro tarafından 114944 farklı simülasyon gerçekleştirilmiştir. Bunlar arasında en uygun olan sistemin seçimi en düşük şimdiki maliyet değerine göre belirlenmiştir. Ayrıca farklı rüzgar hızlarının gerçekleşmesi durumunda meydana gelecek enerji üretim kapasiteleri de araştırılmıştır. Buna göre, 6,25 kW kapasiteli güneş paneli, 1 kW kapasiteli PV-MPPT, 1 kW kapasiteli 2 adet rüzgar türbini, 6V-167 Ah kapasiteli 8 adet Lityum-iyon batarya ve 2,5 kW kapasiteli konvertör ile kurulacak sistemden yıllık 5433 kWh elektrik enerjisi üretileceği tespit edilmiştir. Ayrıca, üretilen bu enerjinin %61,8'nin güneş enerjisinden, %38,2'sinin ise rüzgar enerjisinden elde edileceği ve yapılan yatırımın basit geri ödeme süresinin 14 yıl olacağı tespit edilmiştir. Bu çalışma ile araştırmacılara ve yatırımcılara faydalı bilgiler sunulacağı düşünülmektedir.

**Anahtar Kelimeler:** Hibrit enerji sistemleri, Yenilenebilir enerji, Tekno-ekonomik analiz, HOMER Pro.



## INFLUENCE OF IMPURITIES ON THE PROPERTIES OF NEW TRANSFORMER OIL

**Ramin Chikhladze**  
**Ketevan Chikhladze**  
**Zurab Janiashvili**

Georgian Technical University, Faculty of Energy and Telecommunication, Department of  
Electrical Engineering and Electromechanics  
Tbilisi, Georgia.

### Abstract

It is not possible to regenerate the oil of a high voltage power transformer that has been in operation for a long time due to aging and new oil is poured into such devices. But despite cleaning, some of the old oil aging products remain in the active part of the transformer and in the solid insulation; this significantly affects the properties of fresh oil in operation. Some directions of this actual issue are discussed in the piece of work, namely: the influence of these impurities on new transformer oils (Nytro 11 GX) and oils T-1500 and regenerated oils T-1500 is discussed.

Oil breakdown voltage and dielectric loss tangent ( $\text{tg}\delta$ ) are determined by increasing the concentration of impurities in the oil. Also oil acid number. The results obtained were analyzed and the corresponding conclusions of practical importance were drawn.

**Keywords:** Transformer, transformer oil, Oil regeneration, oil acid number.



## APPLICATION OF THE TAGUCHI-DEAR METHODOLOGY IN MULTI-CRITERIA DECISION MAKING DURING THE DRY TURNING OF INCONEL 718

Hanane Boumaza<sup>1\*</sup>, Salim Belhadi<sup>2</sup>, Mohamed Athmane Yallese<sup>2</sup>, Abdelkrim Haddad<sup>1</sup> and Kouahla Ilyas<sup>2</sup>

<sup>1\*</sup>*Applied Mechanics of New Materials Laboratory-LMANM, May 8th 1945 University, P.O. Box 401, Guelma 24000, Algeria.*

<sup>2</sup>*Mechanics and Structures Research Laboratory (LMS), May 8th 1945 University, P.O. Box 401, Guelma 24000, Algeria.*

ORCID NO: 0000-0002-5096-5420

### Abstract:

Inconel alloy 718 is one of the many nickel-based super-alloys whose exceptional properties and technical specifications led it to be used within the aviation and aerospace industries. Introduced in 1965 at industrial scale, it is extensively used nowadays because of its properties mainly represented by its high strength, corrosion resistance, heat and fatigue resistance, and its low thermal conductivity. However, and essentially because of its high work machining hardening rates, strain rates leading to high cutting forces, abrasiveness, toughness, gummy and strong welding tendency to the tool that leads to developing a built-up edge, and low thermal properties leading to high cutting temperatures, this type of alloy is difficult to machine.

The present study focuses on an experimental investigation along with an effective approach with the objective of optimizing the turning characteristics of the Inconel 718 through multiple response outputs represented by the tool flank wear ( $V_b$ ), the surface roughness ( $R_a$ ) and the material removal rate (MRR). Data Envelopment Analysis based Ranking Methodology (DEAR) has been applied along with the Taguchi's signal-to-noise ratio (S/N) in order to obtain the best combination using the larger-the-better approach for multi-optimization. Machining was performed with a ceramic composite cutting tool (CC670) and the tests carried out according to the Taguchi design ( $L_{18}$ ), the objective being the identification of the best combination of the cutting parameters i.e. the cutting speed ( $V_c$ ), the feed rate ( $f$ ), the depth of cut ( $a_p$ ) and the insert radius ( $r$ ) for the simultaneous minimization of both ( $V_b$ ) and ( $R_a$ ) and maximization of (MRR). The results achieved identify the set of optimal parameters as  $V_c=200\text{m/min}$ ,  $f=0.16\text{ mm/rev}$ ,  $a_p=0.25\text{mm}$  and  $r=1.2\text{mm}$ . They produce the desirable output parameters represented by  $V_b=0.158\text{mm}$ ,  $R_a=1.018\mu\text{m}$  and  $\text{MRR}=8\text{cm}^3/\text{min}$ .

**Keywords:** Multi-Response Optimization, Inconel 718, Cutting Parameters, Taguchi, DEAR.



**DETECTION OF EPILEPTIC SEIZURES USING WIRELESS SYSTEMS****Ruchi Yadav<sup>1</sup> Rashmi Priyadarshini<sup>2</sup> R M Mehra<sup>3</sup>**

<sup>1 2 3</sup>*Department of Electronics and Communication Engineering  
School of Engineering and Technology, Sharda University, Greater Noida 201310, UP, India*

**Abstract**

Epilepsy is a neural disorder that occurs due to the electrical disturbances in brain. It is a very tough job to predict the occurrence of seizures and this is the prominent reason why many of the time medical staff is not available to reach out to patient and provide the proper care needed by him. Hence, this causes several harm to epileptic patients like falling from bed, several head injuries, unconsciousness, etc.

This paper mainly enlightens the role of Wireless Sensor Networks in Health-based monitoring system. The major focus of this paper is on epileptic patients that have frequent seizures. The concern for these patients led the need of autonomous data handling and predicting system that not only collects data but also forecasts the occurring frequency of seizures in a day by processing the collected data and comparing it with the past data. This paper involves the use of domain area of WSN's which enables various wirelessly connected sensors to communicate with each other. The project assembled as an outcome of this research involves the use of Accelerometer, HR sensors, MCC unit, a cloud platform, Microcontroller board

**Keywords** - WSN's, Epileptic Seizures, MCC Unit, Accelerometers, HR sensors, Cloud Unit, Microcontroller Board



## NEUTRON STAR IN THE PRESENCE OF DARK MATTER

H. C. Das <sup>1,2</sup>, Ankit Kumar <sup>1,2</sup> and S. K. Patra <sup>1,2</sup>

*Institute of Physics, Sachivalya Marg, Bhubaneswar-751005, India.  
Homi Bhabha National Institute, Training School Complex, Anushakti Nagar, Mumbai 400085,  
India.*

### Abstract

Neutron stars (NSs), being one of the most enigmatic stellar remnants with incredibly dense core and sturdy crust, can be considered as the best laboratory in the universe to appraise many astrophysical models of the strong gravitational field regime. We analyse the effects of dark matter on the properties and curvature of the NS with the help of relativistic mean-field (RMF) formalism using NL3, G3 and IOPB-I parameter sets. We thoroughly investigate the influence of dark matter candidates on the mass-radius profile of the NS. The impact of dark matter on the moment of inertia for static and rotating NS has also been calculated and studied. We calculate and examine the Riemann tensor, Kretschmann scalar, Ricci tensor and Ricci Scalar along with the variation of baryon density, mass and radius of the NS in the presence of the dark matter. The correlation between surface curvature and some properties of the NS has also been explored with the different equations of states.

**Keywords:** Neutron Star, RMF, Dark Matter, Curvature



**AKKUMULYATOR BATAREYALARI VƏ YANACAQ ELEMENTLƏRİ****ACCUMULATOR BATTERIES AND FUEL ELEMENTS****Abdullayev Anar Arif***Cand. of phys.-math. sciences, doctoral student**ORCID ID: <https://orcid.org/0000-0001-7672-3940>**National Aviation Academy of Azerbaijan, AZ1045, Baku city, Pos Bina 25 km.***Xülasə**

Konfrans materialında akkumulyator batareyalarının və yanacaq elementlərinin istismar xüsusiyyətləri, texniki xarakteristikaları (xüsusi çəki və həcmə görə enerji tutumları) haqqında məlumatlar, pilotsuz uçuş aparatlarının, eləcə də insan fəaliyyətinin müxtəlif sahələrində istismar olunan daşıyan elektron cihazların və qurğuların uzun müddətli işləməsini təmin edən enerji mənbələri-akkumulyator batareyaları və yanacaq elementləri əsaslandırılmış müqayisəli təhlil edilmişdir. Litium əsaslı akkumulyator batareyalarının istehsalının inkişaf mərhələləri, konstruksiyası və hazırlanma texnologiyalarının xüsusiyyətləri, elektrodlarının və elektrolitlərinin hazırlanmasında istifadə edilən kimyəvi elementlər, kimyəvi tərkibindən aslı olaraq elektrodların parametrləri, daxilində gedən kimyəvi reaksiyalar, yüklənmə və boşalma xarakteristikaları, tətbiq sahələri, üstünlükləri və çatışmazlıqları, istismarı və utilizasiyası zamanı təhlükəsizlik qaydaları təhlil edilmiş və ümumiləşdirilmişdir. Xüsusi çəki və həcmə görə enerji tutumu göstəricilərinin yüksək olması səbəbindən pilotsuz uçuş aparatlarında, daşıyan elektron qurğularda və s. litium-polimer akkumulyator batareyalarından istifadə etməyin üstün tərəfləri müəyyənəşdirilmişdir.

Hidrogen əsaslı yanacaq elementlərindən istifadənin xüsusiyyətləri, hidrogen yanacağının alınması və saxlanması üsulları, tətbiq sahələri öyrənilmiş, enerji tutumu imkanları qiymətləndirilmiş, xüsusi enerji tutumlarının əsasında götürülmüş ekvivalent tərkibin parametrləri, eləcə də hidrogenlə işləyən yanacaq elementlərdən pilotsuz uçuş aparatlarında əsas enerji mənbəyi qismində geniş istifadə edilməməsinin səbəbləri müəyyənəşdirilmiş, hidrogenin alınması və onunla işləyən yanacaq elementlərinin iş fəaliyyətinin təşkili üçün tələb olunan enerji sərfiyyatını və s. amilləri nəzərə alaraq sistemin faydalı iş əmsalının təxminən 50% təşkil etdiyi göstərilmişdir.

Uçuş aparatlarının uzun müddətli uçuşun təmin edilməsində enerji mənbəyi qismində istismarda olan litium-ion və litium-polimer tipli akkumulyator batareyalarından istifadənin daha yaxşı göstəricilərə malik olduğu müəyyənəşdirilmiş və onların effektiv əvəzləyicilərinin olmaması qeyd edilmişdir.

**Açar sözlər:** Akkumulyator batareyaları, litium-ion akkumulyatoru, litium-polimer akkumulyatoru, hidrogen akkumulyatoru, yanacaq elementi, pilotsuz uçuş aparatı, konvertoplan.

**Abstract**

The conference material includes information on the tactical and technical characteristics, technical characteristics (specific gravity and volumetric capacity) of batteries and fuel cells, energy sources that ensure long-term operation of unmanned aerial vehicles, as well as portable electronic devices and devices used in various fields of human activity, batteries and fuel cells were reasonably matched. Stages of development of lithium batteries, design features and manufacturing technology, chemical elements used in the manufacture of electrodes and electrolytes, parameters of electrodes depending on their chemical composition, internal chemical reactions, loading and unloading characteristics, applications, advantages and disadvantages, operation Were analyzed and summarized the safety rules. Due to its high energy intensity due to its specific gravity and volume, it can be used in



unmanned aerial vehicles, portable electronic devices, etc. The advantages of using lithium polymer batteries have been revealed.

The features of the use of hydrogen fuel cells, methods of obtaining and storing hydrogen fuel, areas of application are studied, the energy intensity is assessed, the parameters of the equivalent composition based on specific energy capacities are studied, as well as the reasons for the non-proliferation of the use of hydrogen fuel cells as the main source of energy in drones., Energy consumption required for the production of hydrogen and the organization of the operation of fuel cells, etc. Taking into account the factors, it is shown that the efficiency of the system is about 50%. It was found that the use of lithium-ion and lithium-polymer batteries as an energy source during a long flight of an aircraft has better characteristics and the absence of effective substitutes.

**Key words:** rechargeable batteries, lithium-ion battery, lithium-polymer battery, hydrogen battery, fuel cell, unmanned aerial vehicle, convertible.



## DESCRIPTIVE STUDY OF THE GERMANIUM 66 :USING THE MSDI

<sup>1\*</sup> Dalal Naji Hameed , Ali Khalaf Hasan<sup>2</sup>

<sup>1, 2</sup> Kufa University ,College of Education for Girls , Department of Physics, Najaf, Iraq

### Abstract

We consider the residual interaction to be modified surface delta interaction MSDI .We have studied the excitation energies of the  $^{66}\text{Ge}$  a nucleus, which contain two neutrons outside closed shell of the  $^{64}\text{Ge}$  . Neutrons are in the model space ( $0f_{5/2}$   $1p_{1/2}$   $0g_{9/2}$  ).The energy levels and angular momentum of all possible cases were investigated. Thereby, we have used a theoretical process to find link between the classical coupling angle  $\theta_{a,b}$  and energy levels at different orbital within neutron - neutron interaction .We observe the energy levels appear to follow two overall functions which depend on the classical coupling angles but are unconstrained of angular momentum I . The agreement between theoretical and experimental levels is satisfactory for excitation energies .The theoretical calculations for MSDI reasonably well agree with the experimental data. The minimum angular momentum I values correspond to maximum angle  $\theta_{a,b}$  and vice versa. This indicates that the MSDI is very good to illustrate the nuclear structure for  $^{66}\text{Ge}$  nuclei

**Keywords:** shell model ,energy levels ,  $^{66}\text{Ge}$  , modified surface delta interaction



## EFFECT OF THERMAL RADIATION AND CHEMICAL REACTION ON MHD FLOW OF BLOOD IN STRETCHING PERMEABLE VESSEL

**Dr. Binyam Zigta**

*Wolaita Sodo University, College of Natural and Computational Science,  
Department of Mathematics  
P.O.Box 138, ETHIOPIA*

### **Abstract:**

In this paper theoretical analysis of blood flow in the presence of thermal radiation and chemical reaction under the influence of time dependent magnetic field intensity has been studied. The unsteady non linear partial differential equations of blood flow considers time dependent stretching velocity, the energy equation also accounts time dependent temperature of vessel wall and concentration equation includes time dependent blood concentration. The governing non linear partial differential equations of motion, energy and concentration are converted into ordinary differential equations using similarity transformations solved numerically by applying ode45. MATLAB code is used to analyze theoretical facts. The effect of physical parameters viz., permeability parameter, unsteadiness parameter, Prandtl number, Hartmann number, thermal radiation parameter, chemical reaction parameter and Schmidt number on flow variables viz., velocity of blood flow in vessel, temperature and concentration of blood has been analyzed and discussed graphically. From the simulation study the following important results are obtained: velocity of blood flow increases with both increment of permeability and unsteadiness parameter. Temperature of the blood increases in vessel wall as Prandtl number and Hartmann number increases. Concentration of the blood decreases as time dependent chemical reaction parameter and Schmidt number increases.

**Key words:** Stretching velocity, similarity transformations, time dependent magnetic field intensity, thermal radiation, chemical reaction.



**TRANSMEDIA STORY TELLING AND IMAGE PROJECTION IN THE INDIAN  
CONTEXT: A STUDY OF EMERGING TRENDS THROUGH COMPARATIVE  
ANALYSIS OF FILM, WEB SERIES AND ANIMATION**

**Ms. C P Rashmi<sup>1</sup>,**

*Research Scholar, School of media, Films and Entertainment, Sharda University, Greater Noida.*

*Assistant Professor (HOD), IES University, Bhopal*

**Dr. Shikha Rai<sup>2</sup>,**

*Asst. Professor, School of Journalism and New Media Studies, Indira Gandhi National Open*

*University, New Delhi-110068, India*

**Abstract**

Transmedia story telling is though not a new concept but it's trending and new in terms of Indian entertainment industry. Multiple media or communication platforms are used along with projecting a brand image with different content and context. Bahubali is one of the best examples to cite transmedia story telling. It's used on social media platform extensively now days and is quite popular amongst youngsters. The following research is a content analysis of few of the popular films, animation and web series (Babhubali, Ghanesha and sacred games) where the marketing strategy, content and its placement is studied. Expert's interviews were also conducted to add the qualitative aspect and support/interpret the data analyzed. The major finding points out towards the quality and the variety of the content that is presented with the fresh ideas targeting different age group and audience according to the need and platform used. The following fact adds to the success of this adopted form of brand image projection in terms of Indian brand image projection.

**Key Words:** Transmedia, transmedia narrative, multiplatform storytelling, marketing strategies



**ULUSLARARASI TOPLUMSAL BELLEK VE SİNEMA İLİŞKİSİ: ERTUĞRUL 1890****THE RELATIONSHIP OF INTERNATIONAL COLLECTIVE MEMORY AND CINEMA:  
ERTUĞRUL 1890 (125 YEARS MEMORY/ KAINAN 1890)****Sena KURT***<sup>1</sup> Giresun Üniversitesi, İletişim Bilimleri Ana Bilim Dalı, Giresun, Türkiye  
0000-0003-0809-3312***Özet**

Uluslararası toplumları birbirine bağlayan tarihi olaylar kimi zaman savaş müttefiki devletler arasında, kimi zaman spor müsabakalarında kimi zamansa insan olma paydasında gerçekleşebilmektedir. Japonya ve Türkiye arasında gerçekleşen tarihteki olaylar da bu iki devletin ve toplumun yakınlaşmasını sağlayarak toplumsal bir bellek oluşmasına zemin hazırlamıştır. 1890 yılında yaşanan Ertuğrul Fırkateyni faciası ve 1985'te gerçekleştirilen kurtarma operasyonu, Japonya ve Türkiye arasındaki ilişkilere siyasal anlamda yeni bir boyut katarken toplumsal anlamda da yakınlaşmalara sebep olmuştur. Ertuğrul isimli fırkateyn Osmanlı Padişahı Sultan II. Abdülhamit Han döneminde Japonya'ya yapılacak bir ziyaret üzerine 656 bahriyeliyle yola çıkmıştır. Ziyareti gerçekleştiren subay ve mürettebatın bulunduğu Ertuğrul Fırkateyni hadisesinde gemi, dönüş yolunda kayalıklara çarparak batmıştır. Kurtulan 69 kişiye yakınlardaki Kushimoto kasabası sakinleri tarafından yardım eli uzatılmıştır. Ertuğrul, 587 denizcinin ölümüyle ve Japonların yardım ve fedakarlıklarıyla hafızalara kazınan bir olaydır. 1985 yılında ise İran-Irak savaşında İran'da mahsur kalan 200'den fazla Japon vatandaşı Türk Hava Yolları aracılığıyla ülkelerine ulaştırılmıştır. Dönemin Irak Cumhurbaşkanı Saddam Hüseyin'in hava sahası mühletleri ve tehditlerine rağmen Japon vatandaşları için 2 uçak seferi organize eden Türkiye, önemli bir fedakârlık göstermiştir. Geminin batışı ve İran'da mahsur kalış ne kadar elim olsa da bu olaylar sayesinde uluslararası bir toplumsal bellekten söz etmek mümkün olmaktadır. Toplumsal bellek, o toplumun üyeleri için kimlik kazanımını sağlarken uluslararası toplumsal bellek ise ortak bir kimliğin yanı sıra söz konusu ulusların karşılıklı olarak birbirini yakın konumlandırmasını da sağlamaktadır. Tarihsel anlatıların nesillerden nesillere aktarımında önemli bir araç olan sinema, uluslararası toplumsal bellek inşasında da rol oynamaktadır. 2015 yılında T.C. Kültür ve Turizm Bakanlığı'nın yapımcılığını üstlendiği Ertuğrul 1890 isimli sinema filmi, Türk ve Japon iş birliği ile beyaz perdeye aktarılmıştır. Bu çalışmanın konusunu oluşturan uluslararası toplumsal bellek ve sinema ilişkisi Ertuğrul 1890 filmi üzerinden teorik çerçevede incelenecektir.

**Anahtar Kelimeler:** Sinema, Toplumsal bellek, Ertuğrul Fırkateyni, Japonya

**Abstract**

Historical events that connect international societies can sometimes take place between war-allied states, sometimes in sports competitions, and sometimes on the ground of being human. The historical events that took place between Japan and Turkey also paved the way for the formation of a collective memory by bringing these two states and societies closer. The Ertuğrul Frigate disaster in 1890 and the rescue operation carried out in 1985 brought a new dimension to the relations between Japan and Turkey in a political sense, also leading to a social connection. The frigate named Ertuğrul set off because of a visit to Japan with 656 sailors during the reign of Ottoman Sultan II. Abdulhamid. In the case of the Ertuğrul Frigate, where the officers and crew were present, the ship crashed into the rocks and sank on the way back. A helping hand was extended to 69 survivors by residents of the nearby town of Kushimoto. Ertuğrul is an event that is remembered with the death of 587 sailors and the help and sacrifices of the Japanese. In 1985, more than 200 Japanese citizens who were stranded



in Iran during the Iran-Iraq war were transported to their countries by Turkish Airlines. Despite the airspace deadlines and threats of the Iraqi President Saddam Hussein, Turkey organized two flights for Japanese citizens and made a significant sacrifice. Although the sinking of the ship and being stranded in Iran are sad, thanks to these events, it is possible to talk about an international collective memory. While the collective memory provides the identity for the members of that society, the international collective memory provides a common identity as well as the mutually close positioning of the nations. Cinema, which is an important tool in the transfer of historical narratives from generation to generation, also plays a role in the construction of international collective memory. In 2015, the motion picture 125 Years Memory, produced by the Ministry of Culture and Tourism of the Republic of Turkey, was turned into a screenplay with the cooperation of Turkish and Japanese. The relationship between international collective memory and cinema, which is the subject of this study, will be examined in a theoretical framework through the film 125 Years Memory.

**Keywords:** Cinema, Collective memory, Ertuğrul Frigate, Japan



## THE EFFECTS OF THE COVID-19 PANDEMIC ON JOURNALISM : MENTAL HEALTH IMPLICATIONS ON JOURNALISTS, MEDIA PERSONS AND SUPPORT STAFF

**Dr. Paluri Bharathi, Prof. P. Vijayalakshmi**

*Dept. of communication and Journalism , Sri Padmavati Women's University, Tirupati, Andhra Pradesh, India*

### Abstract

#### Background

History will memorize the corona virus through reports recorded by journalists throughout the world. Many of the media persons are putting their health and their lives at risk in order to cover the pandemic from the front lines. A significant number of journalists reporting on COVID-19 show signs of anxiety and depression, sleep and eating disorders or burnout are just some of the mental health problems that many journalists covering the Covid-19 pandemic suffer everyday according to the early results of a survey into the current state of journalists' emotional wellbeing.

The goal of this research study is to stimulate novel investigations and theoretical perspectives among journalists in India. How they are psychologically affected by and coping with the COVID-19 pandemic. The research intend for this study collection to be a discussion platform on how to help journalists cope with and adjust to the panic situation.

To carry out this study, an online questionnaire was prepared and conducted in Indian states and a total of 500 journalists were sampled. A survey on 500 sample using stratified sample method in the major cities of Telangana and Andhra pradesh in India .

#### Results :

Majority of the Journalists reported that covid-19 pandemic has a significant impact on their mental health like fear and panic conditions during outbreak in India with a potential negative influence among them .

The research results showed that the excessive stress felt by many journalists during this unprecedented public health crisis is exceptional. Journalists all experiencing it, globally, together. The outcome of the study also helps journalists to train to get right support by the organizations. The outcome of the research helps to explore the clinical and legal interventions also.



**PANDEMIC, INFODEMIC AND INFORMATION DISORDER: A QUALITATIVE CONTENT ANALYSIS ON FALSE INFORMATION DURING CORONAVIRUS****Mustafa BÖLÜKBAŞI\***

\* Dr. Lecturer, Uşak University, The Office of Communication, Uşak, Turkey.  
ORCID: <https://orcid.org/0000-0002-6895-6151>

**Abstract**

Although Covid-19 has been attracting a lot of interest in a wide range of fields, most social researchers have only focused on its economical or psychological effects. Recently, considerable literature has grown up around the theme of “information disorder”. However, few studies have investigated the role of the internet in the spread of false information in a systematic way. In addition, there has been little agreement on the conceptional framework. This paper analyzes misinformation/disinformation on websites, social media platforms, and closed messaging applications during the coronavirus pandemic between November 2020 and April 2021 by using the qualitative content analysis method. This study aims to contribute to this growing area of research by exploring the main characteristics of false information. The research data is drawn from the fact-checking website “teyit.org” and covers a total of 73 false contents. The major findings are as follows: 1-) 90% of the contents have “completely false information”. 2-) The most common type of false content is misleading content with 39%. 3-) The number of false contents has relatively decreased with vaccination. 4-) However, about a third of the false contents are related to vaccines.

**Keywords:** Covid-19, infodemic, information disorder, fake news, content analysis



## FEMINISM, FEMININITY AND SOCIAL ISSUES IN ROMANIAN GLOSSY MAGAZINES

**Gabriela Boangiu**

Scientific Researcher III dr.,  
Institute for Socio-Human Researches, “C. S. Nicolăescu-Plopșor”, Craiova,  
of the Romanian Academy,

### **Abstract**

The study aims to analyze elements of the feminist movement, to research the concept of femininity, as well as their reflection in Romanian glossy magazines. The principles of feminism and ways of representing them in Romanian glossy magazines, published by foreign concerns, but also older Romanian magazines, such as „Revista Femeia”, will be analyzed. Different issues will be investigated, for different years of the magazines, with a special emphasis on their editorials.

The role of women in society, over time, has undergone many changes. However, the 19th century brings with it numerous feminist movements. It was difficult for women to study law and medicine, even in commerce; their presence was limited due to their right to inheritance and property. Women in the upper echelons, the nobility and the bourgeoisie, are beginning to organize meetings in which there are discussions about women's rights, the right to vote and more.

In 1869, women in Wyoming received the same right to vote as men, in Western Australia and South Australia they received the right to vote, in 1890, the same thing happened in three other American states. In 1880, Lady Harberton founded the Rational Clothing Association. In 1893, New Zealand women received the right to vote. In 1906, women in Finland were granted the right to vote. In 1919, the American Congress gave women the right to vote. In English-speaking Canada, in 1922, women were granted the right to vote. Also in Austria, Hungary, Czechoslovakia, Poland, Latvia, Lithuania and Estonia, women received the right to vote in 1923. In France it was not until 1945 that the law of 2 November established women's suffrage.

**Keywords:** *woman, feminism - women's emancipation, femininity, social issues, glossy magazines.*



**STUDENTS' PERSPECTIVES ON REAL AND IDEAL USES OF INSTRUCTOR'S TIME****Tami Meredith<sup>1\*</sup>, Maryanne Fisher<sup>2†</sup>**<sup>1</sup>*Dalhousie University, Faculty of Computer Science, Halifax, Canada.*<sup>2</sup>*Saint Mary's University, Faculty of Science, Department of Psychology, Halifax, Canada.***Abstract**

The reality of academia is that most instructors divide their time between teaching tasks, doing research, supervising students, and performing other administrative duties. After accounting for all other activities within a 40-hour workweek, we determined that instructors at a typical Canadian university have approximately 7 hours for teaching related tasks outside of the classroom such as creating and preparing lectures, making handouts, marking, grading, holding office hours, managing teaching assistants, or answering course related e-mail. We asked 99 current students to allocate an instructor's time, within the 'real' 7-hour constraint. We also asked them how they would 'ideally' allocate an instructor's time if there was no time constraint. Office hours were considered the most important use of time, with grading and exam/assignment preparation being listed next, while administrative activities were viewed as the least important. We identified sex differences, between male and female students, in their thoughts about how instructors should allocate their time with respect to office hours, grading, and preparation of examinations. In addition, all students believed that the 7-hour limit is unrealistic and does not provide an instructor with adequate time to support students effectively. We found that when instructors attempt to balance their time across their numerous responsibilities within a work week, there is insufficient time to satisfy student expectations. This conflict between student expectations and the limitations on an instructor's time creates a challenging and stressful situation that needs to be addressed so that instructors can effectively and satisfactorily fulfil their many responsibilities.

**Keywords:** Science Instruction, Time Use, Student Expectations, Teaching, Stress



## ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION - OPPORTUNITIES AND CHALLENGES IN THE CONTEXT OF THE WORLD AND VIETNAM

Thi My Hanh DINH<sup>1\*</sup>, Van Hung TRAN<sup>2</sup>, Tu Thanh NGO<sup>3</sup>

<sup>1</sup> *Department of Student Affairs, The University of Danang,*

*PhD student of Hanoi University of Science and Technology, Danang, Vietnam*

<sup>2</sup> *Faculty of Information Technology, The University of Danang - University of Science and Education,*

*Danang, Vietnam*

<sup>3</sup> *Hanoi University of Science and Technology*

### Abstract

There are many factors influencing today's global challenging changes, four of which are: i) social impacts; ii) strategic actions; iii) talents and workforces; iv) technological impacts (Bersin, 2018). One of the technologies mentioned a lot in the recent few years and contributing to creating powerful breakthroughs and bringing "miraculous" results is just AI. AI is an interdisciplinary field of Philosophy, Psychology, Neuroscience, Mathematics, Cybernetics, Computer Science, Linguistics, Economics (Russel and Norvig, 2003). AI has been exploding and gradually approaching all aspects of social life, including education. In addition to basic background knowledge on AI formation and development in general and AI in education in particular. Before broadly deploying AI in education, it is necessary to evaluate the opportunities and challenges that AI brings to this field. This study is aimed at analyzing AI's opportunities and challenges for education from the perspective of Vietnam. The article is mainly to analyze the positive effects of AI on education on a global scale and suggest solutions. At the same time, challenges and difficulties when applying AI to higher education from the perspective of Vietnam are also discussed in the article. Finally, some major solutions to help the deployment of AI in Vietnam's higher education more convenient are proposed.

**Keywords:** Artificial Intelligence, education, university, opportunity, challenge



**MORPHO-TAXONOMIC STUDY OF *TABANUS UNIFASCIATUS*  
LOEW, 1858 (DIPTERA: TABANIDAE). NEW RECORD FOR IRAQ**

**Ahmed Jameel Sabr**

*Dept. of Biology, College of Education for Pure Sciens Ibn Al-Haitham, University of Baghdad.*

**Abstract**

This search was included external morphological study of horse fly *Tabanus unifasciatus* Loew, 1858 new record in Iraq, which belongs to family: Tabanidae Latreille 1802, order: Diptera. The study was involved the most important taxonomic external characters: the head which includes compound eyes and front in terms of its shape, color and parts; and maxillary palpi in terms of color and palpal calli; and antenna in terms of color, parts and shape of each part; and the dorsal view of thorax in terms of color, and its core parts such as thorax segments and their appendages wings and legs, the study includes the shape of the wing and its color and the characteristics of its venation; and colors and shapes of fore, mid and hind legs; in addition, this work included the spotting in coloring pattern of dorsal view of abdomen, and female genitalia includes the parts of this genitalia and the shapes of each part.

**Key words:** Horse fly, Diptera, Tabanidae, *Tabanus*, Description.



**BLURRED LINES OF WORK-LIFE BALANCE: HOW COVID-19 PANDEMIC  
REDEFINED THE PERFORMANCE OF ENTRY LEVEL CAREER-WOMEN IN  
PRIVATE BANKING SECTOR, SRI LANKA**

**P.B.D. Fernando<sup>1</sup>, M.D. Pushpakumari<sup>2</sup>**

*<sup>\*1</sup>University of Sri Jayewardenepura, Faculty of Management Studies and Commerce, Nugegoda,  
Sri Lanka*

*<sup>\*2</sup>University of Sri Jayewardenepura, Faculty of Management Studies and Commerce, Nugegoda,  
Sri Lanka*

**Abstract**

Covid-19 pandemic has impacted many industries, including the banking industry. In the light of this context, this research study explores the entry level banking career-women of Sri Lanka and the Covid-19 pandemic impact on them, where the research objectives are a) to identify the reasons behind the disruption of work-life balance of the entry level career women of the private banking sector and b) to identify productive strategies to reduce the disruption of work-life balance of the entry level career women of the private banking sector. Under a qualitative approach, eight entry level career women from three Sri Lankan banks were interviewed, while ensuring their privacy and confidentiality. In relation to the first research objective, two main themes were discussed, namely changing nature of work and organizational setting amidst Covid-19 pandemic and changing nature of home and social life amidst the Covid -19 pandemic. In relation to the second research objective, the need of increased empathy from the banks as the employer, as well as requirement of increased empathy from related parties of the career women, such as parents, spouses and in-laws, was emphasized. As Covid-19 is an ongoing phenomenon, this study contributes in terms of expanding literature and policy formulation, as well as the originality of this study would be a stepping stone for many other researches in relation to the work-life balance amidst the Covid-19 pandemic.

**Keywords:** Banking Sector, Career Women, Covid-19 Pandemic, Work-life balance.



## ASSESSING THE EVOLUTION OF SUSTAINABILITY-LED INNOVATION WITH CASES

### *SÜRDÜRÜLEBİLİRLİK ODAKLI İNOVASYONUN EVRİMİNİN VAKALARLA DEĞERLENDİRİLMESİ*

**Assoc. Prof. Dr. F. Oben ÜRÜ<sup>1\*</sup>, Assoc. Prof. Dr. Ebru GÖZÜKARA<sup>2</sup>**

*<sup>1\*</sup>Istanbul Arel University, Business Administration (English) Department, Istanbul, Turkey ORCID No: 0000-0002-1960-5857*

*<sup>2</sup>Istanbul Arel University, Business Administration Department, Istanbul, Turkey ORCID No: 0000-0003-0337-5337*

#### **Abstract**

With the effect of increasing population and industrialization, the amount of necessary resources we need is rising rapidly. In this context, as in the WWF's report, it is stated that the resources of almost two planets are needed in order to maintain the current lifestyles in the future, especially in developed countries as well as if developing countries continue to consume in the same parallel, it will rise 2.5 times by 2050. In other words, it is stated that many energy and raw material resources that we need for now will become increasingly scarce rather than available. At the same time, we confront the dangers of global warming and its effects which we encounter more day by day, and the problem of climate change as both a political and an economic global problem. This means increasingly strong legislation that forces all organizations to change their products and processes to reduce their carbon footprint, greenhouse gas emissions and energy consumption. Behind this is the growing problem of environmental pollution and the concern to stop the increasing damage to the natural environment, as well as the concern of reversing the impacts of earlier practices. In this context, while innovation can be considered as a major contribution to the degradation of the environment through its relationship with increasing economic growth and consumption, it can also be a potential solution to many environmental problems. The innovation called "sustainability-led innovation" includes making use of ideas, concepts and products that provide economic viability due to the environmentally aware designs and practices. With sustainability-led innovation, cleaner products with lower environmental impact throughout their lifecycle, more efficient processes to minimize or treat waste, to reuse or recycle, alternative technologies that reduce emissions, provide renewable energy, use to reduce or replace the consumption of products, and system innovation is emerging, including new services or new sociotechnical systems to measure and monitor environmental impact. In this context, understanding how to develop and implement sustainability-led innovation not only serves the sustainability of the life cycle, but also offers many market opportunities to the organizations that realize this. In this respect, it is necessary to understand its three-stage evolution in order to develop sustainability-led innovation. When the relevant literature is examined, it is seen that there are few number of studies that shed light on the organizations' sustainability-led innovation studies whilst it is seen that most of these studies do not explain how and with which stages sustainability-oriented innovation can be developed. To fill this gap in the literature in this study, three basic stages, namely operational optimization, organizational transformation and system building, which explain the evolution of sustainability-led innovation, are revealed with examples and case studies. Thus, it is expected that this study will contribute to the related literature both theoretically and in practice in the context of shedding light on sustainability-led innovation studies that organizations can develop.

**Keywords:** Sustainability, Sustainability-Led Innovation, Operational Optimization, Organizational Transformation, System Building



## Özet

Günümüzde artan nüfus ve sanayileşmenin etkisiyle her geçen gün ihtiyaç duyduğumuz gerekli kaynak miktarı hızla artmaktadır. Bu çerçevede WWF'nin raporunda da belirtildiği üzere özellikle gelişmiş ülkelerde mevcut yaşam tarzlarının gelecekte de idamesi için neredeyse iki gezegenin kaynaklarına ihtiyaç olduğu buna mukabil gelişmekte olan ülkelerin de aynı paralelde olmaları halinde 2050 yılına kadar bunun 2.5 katına çıkacağı ifade edilmektedir. Bir başka ifadeyle şuan için ihtiyaç duyduğumuz birçok enerji ve hammadde kaynağının bulunabilir olmaktan ziyade giderek daha kıt hale geleceği belirtilmektedir. Aynı zamanda, günden güne etkilerini daha çok görmeye başladığımız küresel ısınmanın tehlikeleri ve iklim değişikliği sorunu hem siyasi hem de ekonomik bir küresel problem olarak karşımızda durmaktadır. Bu durum tüm kuruluşları karbon ayak izini, sera gazı emisyonunu ve enerji tüketimini azaltmak için ürünlerini ve süreçlerini değiştirmeye zorlayan, giderek daha güçlü bir mevzuat anlamına gelmektedir. Bunun arkasında artan çevre kirliliği sorunu ve doğal çevreye verilen artan zararı durdurma kaygısına ilaveten aynı zamanda önceki uygulamaların etkilerini tersine çevirme endişesi vardır. Bu bağlamda inovasyon bir taraftan artan ekonomik büyüme ve tüketimle olan ilişkisi aracılığıyla çevrenin bozulmasına büyük bir katkı olarak değerlendirilebilirken diğer taraftan birçok çevresel soruna yönelik potansiyel bir çözüm de olabilmektedir. “Sürdürülebilirlik odaklı inovasyon” olarak adlandırılan inovasyon çevreye duyarlı tasarımlar ve uygulamalar sayesinde ekonomik uygulanabilirlik sağlayan fikirler, kavramlar ve ürünlerden yararlanmayı içermektedir. Sürdürülebilirlik odaklı inovasyon sayesinde yaşam döngüleri boyunca daha düşük çevresel etkiye sahip daha temiz ürünler, çevresel atıkları en aza indirmek veya işlemek, yeniden kullanmak veya geri dönüştürmek için daha verimli süreçler, emisyonları azaltan, yenilenebilir enerji sağlayan alternatif teknolojiler, ürünlerin tüketimini azaltmak veya değiştirmek için yararlanılan yeni hizmetler veya çevresel etkiyi ölçmek ve izlemek için yeni sosyoteknik sistemleri kapsayan sistem inovasyonu gündeme gelmektedir. Bu kapsamda sürdürülebilirlik odaklı inovasyonun nasıl geliştirilip uygulanabileceğinin bilinmesi bir taraftan yaşamsal döngünün sürdürülebilirliğine hizmet etmekte diğer taraftan bunu gerçekleştiren örgütlere birçok pazar fırsatı da sunmaktadır. Bu açıdan sürdürülebilirlik odaklı inovasyonun geliştirilmesi için üç aşamalı evriminin anlaşılması gerekmektedir. İlgili yazın incelendiğinde kurumların sürdürülebilirlik odaklı inovasyon çalışmalarına ışık tutan az sayıda çalışmanın yer aldığı görülmekle birlikte bu çalışmaların birçoğunda sürdürülebilirlik odaklı inovasyonun nasıl ve hangi aşamalarla gerçekleştirilebileceğinin açıklanmadığı görülmektedir. Yazındaki bu boşluktan hareketle, bu çalışmada sürdürülebilirlik odaklı inovasyonun evrimini açıklayan operasyonel optimizasyon, örgütsel dönüşüm ve sistem kurma olmak üzere üç temel aşama örnekler ve vak’a analiziyle ortaya koyulmaktadır. Böylelikle bu çalışmanın hem kuramsal olarak ilgili yazına hem de kurumların geliştirebileceği sürdürülebilirlik odaklı inovasyon çalışmalarına ışık tutması bağlamında pratikte katkı yapması beklenmektedir.

**Anahtar Kelimeler:** Sürdürülebilirlik, Sürdürülebilirlik Odaklı İnovasyon, Operasyonel Optimizasyon, Örgütsel Dönüşüm, Sistem Kurma



**CAN ETHICAL BANKING DO JUSTICE TO CUSTOMER INVESTMENTS?****M.A.K.De.S., Jayasekera**Faculty of Graduate Studies  
University of Sri Jayawardenapura Sri Lanka**M.D Pushpakumari.**Faculty of Management Studies and Commerce  
University of Sri Jayawardenapura Sri Lanka**Abstract**

The modern customer is ethically conscious and wishes to align him/herself with organizations that make a positive impact to society and environment. The Customer investments may not easily come for banks engage in irresponsible behaviours. Unlike the present-day customer who is concerned about the Socio- Environmental impact of his/her investments, the previous generation of customers have been only making calculations of costs and benefits of their investments. People can change the world with their investments, if it is wisely re invested by the financial intermediaries such as banks. Banks have a responsibility to invest Customer Deposits which gives returns on all three areas of Economy, Environment and Society. The Conventional system of banking failed in this respect. The Financial crisis 2007, exposed banks for their lack of morality. The way banking was carried out was no longer be accepted and needed an ethical orientation of banking practices. An alternative banking type was required and Ethical Banking was accepted as the type of banking that aim for Socio-Economic and Environmental gains. The objective of Ethical Banking is Triple Bottom line – People, Planet and Profit. Ethical Banks maintain an Ethical Investment policy and maintain high transparency standards. The customers of these banks have access to information about where their money is invested. They actively take part in projects that lowers the Carbon Footprint. Having an account relationship with an Ethical Bank, one can be satisfied that his /her money will not be invested in projects that will have negative impact on Society and Environment. Future Investments in Banks will be subject to the scanning for possible negative externalities their investment can cause on Environment and Society. Under these circumstances this study is carried out to determine whether Ethical Banking can do justice to customer investments through a literature review. The methodology is a desk research. The significance of the study is to find out whether Ethical Banks are the right banks for customer investments.

**Key Words:** Deposits; Environment; Ethical Banking; Investments: Society



## **CHARACTERISTICS AND BEST PRACTICES OF ENTREPRENEURIAL MARKETING: LESSONS FOR YOUNG ENTREPRENEURS**

**Dr Muhammad Emad Al-Shaikh**

College of Business Administration, Imam Abdulrahman Bin Faisal University

### **Abstract**

This paper aims to share the experiences of guiding young entrepreneurs and startups for their entrepreneurial marketing initiative at a leading business incubator in the Middle East. The ideal target audience for this paper includes young entrepreneurs eager to launch their startups and preferably attending business incubation or acceleration programs. This paper starts with the characteristics of entrepreneurial marketing and offers differentiation with convention marketing concepts. Focus groups and interviews were held with incubation center staff and entrepreneurship mentors affiliated with business incubation centers. Finally, it provides various entrepreneurial marketing lessons for young entrepreneurs. These best practices were extracted from the literature and validated by the focus groups. These best practices are presented here as lessons and include; (1) 4Ps versus innovation. (2) Marketing Plan versus Marketing Model Canvas. (3) Customer orientation versus 'innovation orientation.' (4) 'Top-down' versus 'bottom-up' strategies. (5) Market Research versus Networking and Information gathering. (6) Moving from cost-based pricing to market-based pricing. (7) Moving from reactive pricing to proactive pricing. (8) Moving towards a higher risk pricing strategy for higher returns. (9) Conceiving innovative price structure. (10) Forming partnerships with distribution channels. (11) Multiple distribution channels. (12) Look for creative and untapped distribution channels. (13) Bring more product versions and variants. (14) Move from traditional advertising to interactive media advertising. (15) Find early adopters for new products or services.

**Keywords ;** Entrepreneurial Marketing, Startup Marketing, Marketing, Entrepreneurship



## THE COMPARATIVE ANALYSIS OF MANAGEMENT SYSTEMS IN NIGERIAN AND UKRAINIAN UNIVERSITIES

**Adegboyega S. OYEWOLE**

*Dept of Business Education, College of Primary Education, NOFORIJA, Epe, Lagos*

**Lateef Abiodun SALAMI.**

*Department of Economics, Hallmark University, Ijebu-Itele, Ogun State, Nigeria*

**Toriola, Anu Keshiro**

*Department of Economic, Hallmark University, Ago-Iwoye, Ijebu-Itele, Ogun State, Nigeria*

**Adebosin, Walid Gbadebo**

*Dept of Business Education, College of Primary Education, NOFORIJA, Epe, Lagos*

### Abstracts

This study compares management systems in Ukrainian and Nigerian university. The study specifically assesses core similarities of both universities, and investigates the areas in which the two universities differ. The main purpose of this study is to introduce the structure of management of university education in both countries. The study was based on comparative analysis with data and information collected from the journal articles, conference proceedings and other literature published online as well as data provided by UNESCO and educational agencies of both countries. Based on the result of the empirical analysis several areas of similarities and differences in the university management system in the two countries was established while acknowledging that the higher educational system in Ukraine is advance in number, output and quality well above the university education system in Nigeria. One key findings in the fact that in Ukraine higher educational system apart from the university, other higher educational institutions are by law permitted to run both Bachelor and Masters degree awarding programmes while in Nigeria it is only the university that is permitted to run bachelor and Masters degree awarding programmes though polytechnic and colleges of education can run bachelor programme but it is usually in affiliation with a university institution.



## K-ORTALAMALAR YÖNTEMİ İLE RÜZGÂR ENERJİSİ TEKNOLOJİLERİNİN KÜMELENMESİ

### CLUSTERING WIND ENERGY TECHNOLOGIES WITH THE K-MEANS METHOD

**Fatma ALTUNTAS\***

*\*İstanbul Ayvansaray Üniversitesi, İktisadi İdari ve Sosyal Bilimler Fakültesi, İşletme Bölümü İstanbul, Türkiye.*

#### Özet

Rüzgâr enerjisi yenilenebilir enerji teknolojileri arasında son yıllarda yatırımcılar tarafından en fazla ilgi çeken enerji türlerinden biridir. Rüzgâr enerjisi ile ilgili teknolojilerinin yönetilmesini sağlayacak veriye dayalı bulguların türetilmesi son derece önemlidir. Bu amaçla kullanılabilecek veri kaynaklarından birisi patent dokümanlarıdır. Bununla birlikte, teknolojik eğilimlerin ve teknolojideki gelişmelerin araştırılmasında da patent dokümanları kullanılmaktadır. Rüzgâr enerjisi ile ilgili her geçen gün tescillenen patent sayısı artmaktadır. Patent verilerin veri madenciliği teknikleri ile araştırılması, patent verisi içindeki gizli örüntülerin ortaya çıkarılmasını sağlamaktadır. Patent verilerinin tüm araştırmacılara açık şekilde paylaşıyor ve kolayca erişilebiliyor olması nedeniyle literatürde veri madenciliği yöntemleri ile analizi sıklıkla gerçekleştirilmektedir. Bu çalışmada, rüzgâr enerjisi teknolojilerinin 1912-2018 yılları arasında USPTO (United States Patent and Trademark Office) patent veri tabanında tescillenen 7505 adet patent dokümanı kullanılarak K-ortalamlar yöntemi ile kümelendi. K-ortalamlar yöntemi veri madenciliğinde en yaygın kullanılan kümeleme yöntemlerinden biridir. Bu çalışmanın başında patentlerin elde edilmesi amacıyla rüzgâr enerjisi ile ilgili CPC (Cooperative Patent Classification) kodunu tanımlayan CPC kodu kullanılarak patent veri tabanında sorgu yapılmıştır. Patentlerden en az bir tane atıf alan patentler çalışmaya dâhil edilmiştir. Elde edilen patent verilerinin analize uygun hale getirilmesi için veri ön işleme süreci yürütülmüştür. Sonrasında kümeleme analizinde kullanılacak değişkenler belirlenmiştir. 7505 adet patent dokümanını K-ortalamlar yöntemi ile belirlenen değişkenler açısından kümelemek için KNIME yazılımından faydalanılmıştır. Gerçekleştirilen kümeleme çalışması sonucunda elde edilen kümelerdeki patent sayıları belirlenmiştir. Küme sayısının belirlenmesi için Silhouette katsayısı kullanılmıştır. Silhouette katsayısına göre ayrıca kümelerin performansları da değerlendirilmiştir. Her kümeye ait tanımlayıcı istatistikler türetilmiş ve kümeler elde edilen istatistiklere göre değerlendirilmiştir. Elde edilen sonuçların rüzgâr enerjisi teknolojilerinin değerlendirilmesinde ve rüzgâr teknolojilerinin yönetiminde kullanılabileceği düşünülmektedir.

**Anahtar Kelimeler:** Veri madenciliği, K-ortalamlar yöntemi, Patent analizi, Rüzgar enerjisi.

#### Abstract

Wind energy is one of the energy types among renewable energy technologies that has attracted the most attention by investors in recent years. It is extremely important to derive data-based findings that will enable the management of wind energy related technologies. One of the data sources that can be used for this purpose is patent documents. In addition, patent documents are also used in researching technological trends and developments in technology. The number of patents registered related to wind energy technologies is increasing day by day. Researching patent data with data mining techniques enables to reveal hidden patterns in patent data. Since patent data are shared openly and easily accessible to all researchers, the analysis of patent documents with data mining methods



is frequently performed in the literature. In this study, wind energy technologies are clustered with the K-means method using 7505 patent documents registered in the USPTO (United States Patent and Trademark Office) patent database between 1912 and 2018. K-means method is one of the most widely used clustering methods in data mining. At the beginning of this study, the CPC code, which defines the CPC (Cooperative Patent Classification) code related to wind energy is used to obtain patent documents. Patents that received at least one citation from the patents are considered in this study. Data pre-processing is carried out in order to make the obtained patent data suitable for analysis. Then, the variables to be used in the cluster analysis are determined. KNIME software is used to cluster 7505 patent documents. The number of patents in the clusters obtained as a result of the clustering study is calculated. Silhouette coefficient is used to determine the number of clusters. The performances of the clusters are also evaluated using the silhouette coefficient. Descriptive statistics for each cluster are derived and clusters are evaluated according to the descriptive statistics. The results obtained from this study can be used in the evaluation of wind energy technologies and in the management of wind technologies.

**Keywords:** Data mining, K-means method, Patent analysis, Wind energy.



## **A STUDY OF A CIVIC CROWDFUNDING CAMPAIGN IN INDIA**

**Dr. Vaniki Joshi Lohani**

Assistant Professor

Atal Bihari Vajpayee School of Management and Entrepreneurship,  
Jawaharlal Nehru University, Delhi

**Dr. Mohit Lohani**

Researcher and General Manager, Linen Design Company,  
142 Mohiyal Colony, Gurugram Sector 40, Haryana-122003 INDIA

### **Abstract**

This study examines India's biggest civic crowdfunding campaign through a mass contact program from 15 Jan to 28 Feb 2021. Vishwa Hindu Parishad - a global council for Hindus – launched a 45-day nationwide crowdfunding campaign across 2 phases to arrange funds for the heritage site and temple of Lord Ram in the cultural city of Ayodhya. In the first phase from 15-31 Jan 2021, VHP contacted eminent people, while in the second phase from 01-28 Feb 2021, an estimated 100 million people were contacted, raising USD 430 million (INR 32 billion). The paper studied other global and national campaigns of civic crowdfunding through offline and online modes and compared their characteristics with those of the current campaign. It also researched the planning and processes of the campaign and the usage of online or digital infrastructure.

**Keywords:** Civic crowdfunding, crowdfunding, mass contact, social campaign



## **A STUDY ON THE EFFECT OF DEMOGRAPHIC VARIABLES ON ELECTRONIC SERVICE QUALITY OF PRODUCT ECOMMERCE IN INDIA**

Dr. Mohit Lohani  
Dr. Kapil Sharma  
Dr. Prabhu Narayan Mishra

### **Abstract**

This study researched the effect of demographical variables on Electronic Service Quality (eSQ) of product ecommerce in India. India's product ecommerce grew at 28% CAGR from USD 14 billion (2014) to USD 50 billion (2018). The literature survey identified various research constructs conceptualised to study the impact of service quality factors on product ecommerce across different world markets, and selected E-S-Qual model by Zeithaml et al (2005) for its wide acceptance among practitioners. E-S-QUAL theoretical construct conceptualizes eSQ as a sum of 4 factors - Efficiency, Fulfilment, Site Availability, and Privacy, and the current study evaluated the effect of demographic variables like age, gender, city, and education over these factors. Data was collected from judgemental sampling on more than 500 respondents across 10 cities and statistical tests were applied. The study concluded that demographical variables had a significant effect on various factors of electronic service quality of product ecommerce in India.



## A STUDY ON AWARENESS OF SMALL FIRMS ON CUSTOMER SATISFACTION WITH COST SAVINGS IN REVERSE LOGISTICS

**Raghavendra B S**

*Financial analyst / Accenture*

**Dr.Chandan Chavadi**

*Professor and Dean/Center for Management studies*

*Presidency College*

**Dr. Ravikeerthi J V**

*Associate Professor/Center for Management studies*

**Reverse logistics** is for all operations related to the reuse of products and materials. It is the process of moving goods from their typical final destination for the purpose of capturing value, or proper disposal. Remanufacturing and refurbishing activities also may be included in the definition of reverse logistics. Reverse logistics is sometimes called aftermarket supply chain, aftermarket logistics or retrologistics.

The objectives of the study is to identify the factors underlying reverse logistics capabilities, values and claiming back strategies, to develop a model of reverse logistics capabilities, values and claiming back strategies and evaluate the relationship which shown in the model, to test the model, to evaluate the mean difference of the firm running since from towards reverse logistics capabilities, value and claiming back strategies and to open new area for further study.

At small firms level none of them or few of them uses 6 sigma standards and because of this majority of them may produce defective products in large quantity. So they need to have reverse logistics in their organization. This study will help them to reorganize themselves equipping them to handle reverse logistics.

The result of the tests indicate that there is no significant difference within the three groups.

There is a significant positive cause and effect relationship between reverse logistics capabilities and claiming back strategies. There is significant cause and effect relationship between claiming back strategies and value (cost savings) there is significant cause and effect relationship between reverse logistics capabilities and value (cost savings).

### **Research methodology:**

This is descriptive and exploratory study; Descriptive study aims to describe the phenomena about the about the variables being studied.

### **Data Collection**

The study is based on the survey of the respondents. The data required for the research purpose will be obtained from Managers of various small industries in Karnataka with a sample size of 100 through questionnaire.

### **Analysis: (Using Spss)**

Chronbach's alpha for reliability

Exploratory Factor analysis applied to identify the factors underlying reverse logistics capabilities, value and claiming back strategies.

Kruskal-Wallis H test is applied to test null hypothesis with respect to logistics capabilities, value and claiming back strategies.

**Key words:** Reverse Logistics   Customer satisfaction   Value   Cost savings   Strategies  
Remanufacturing and Refurbishing



**DÜNYADA VE TÜRKİYEDE SPOR PSİKOLOJİSİ****SPORTS PSYCHOLOGY IN THE WORLD AND IN TURKEY****Yunus ŞAHİNLER<sup>1</sup> Büşra Fatma ÜN<sup>2</sup> Taner ATASOY<sup>3</sup>**<sup>1</sup>*Kütahya Dumlupınar Üniversitesi Spor Bilimleri Fakültesi/Kütahya/ 0000-0002-5268-020X*<sup>2</sup>*Cardiff Metropolitan University Cardiff School Of Sport, Health Sciences, Cardiff, Wales, 0000-0003-4394-6157*<sup>3</sup>*İstanbul Gelişim Üniversitesi Beden Eğitimi Ve Spor Yüksekokulu/ İstanbul 0000-0001-5885-0663***Özet**

Bu çalışmanın amacı spor psikolojisinin dünyada ve türkiyede geçmişten günümüze nasıl bir değişim ve gelişim gösterdiğini incelemek. 1800’lü yıllardan günümüze spor psikolojisinin spor alanında, üniversitelerde, okullarda, kulüplerde, ders kitaplarında, deneysel çalışmalarda, seminerlerde, organizasyonlarda ve kongrelerde nasıl bir kimlik kazandığı ve spor bilimlerinde öneminin arttığı görülmüştür. Spor psikolojisi tarihi birçok yönden psikoloji, beden eğitimi ve diğer kinesiyojoloji ile ilgili disiplinler dahil olmak üzere diğer uzun süredir devam eden disiplinlerin tarihini yansıtır. Birçok ayrıntılı yazılı tarihi olmasına rağmen, spor psikolojisinin tarihsel süreçleri adlı çalışmamızda spor psikolojisinin geçmişten günümüze rehber olacak bir bakış sağlamaktır.

**Anahtar Kelime:** Spor, Psikoloji, Gelişim, Değişim**Abstract**

The aim of this study is to examine how sports psychology has evolved from past to present in the world and in Turkey. It has been observed that sports psychology has gained an identity in the field of sports, universities, schools, clubs, textbooks, experimental studies, seminars, organizations and congresses since the 1800s and its importance has increased in sports sciences. The history of sports psychology reflects in many ways the history of other longstanding disciplines, including psychology, physical education, and other kinesiology-related disciplines. Although there are many detailed written histories, our work on the historical processes of sports psychology is to provide a guiding view of sports psychology from the past to the present.

**Keywords:** Sport, Psychology, Development, Change



**AN INVESTIGATION ON PSYCHOLOGICAL RESILIENCE, SELF-EFFICACY AND ACHIEVEMENT-ORIENTED MOTIVATION OF UNIVERSITY STUDENTS DURING PANDEMICS IN TERMS OF DEMOGRAPHIC VARIABLES\***

**PANDEMİ DÖNEMİNDE ÜNİVERSİTE ÖĞRENCİLERİNİN PSİKOLOJİK DAYANIKLILIK, ÖZ YETERLİK VE BAŞARI ODAKLI MOTİVASYONLARININ DEMOGRAFİK DEĞİŞKENLER AÇISINDAN İNCELENMESİ\***

**Tuğba SANCAR<sup>1\*</sup>, Merve MAMACI<sup>2</sup>**

*<sup>\*1</sup> İstanbul Kent University, Social Sciences Institute, İstanbul, Türkiye  
ORCID Code: 0000-0001-9368-340X*

*<sup>2</sup>Fenerbahçe University, Faculty of Economics, Administrative and Social Sciences, Psychology, İstanbul, Türkiye  
ORCID Code: 0000-0001-7882-3670*

**Abstract**

SARS - CoV -2, which is stated to have emerged in Wuhan, China in December 2019, is a health problem that causes problems in many areas (WHO, 2021). The changes in education system experienced by university students due to pandemic restrictions can also be considered as one of the problems brought about by the pandemic. For this reason, in this research, psychological resilience, self-efficacy and success-oriented motivation levels of students who continued their university education during the Covid-19 pandemic were examined through demographic information. The population of the research is university students. The sample of the study consisted of 342 university students aged between 17-40. Data was obtained through demographic information form consisting of 11 questions, psychological resilience scale, general self-efficacy scale and success-oriented motivation scale. When the average scores obtained from the scales according to the genders were compared, a significant difference was found between the mean scores of the university students from the psychological resilience scale-challenge subscale according to their gender. When the total scores obtained from the achievement-oriented motivation scale according to gender were evaluated, the average of success-oriented motivation of women was found to be significantly higher than the average of men. When GPA averages were evaluated in terms of gender, it was seen that GPA averages of women were significantly higher than the averages of men. When the scales were evaluated on terms of education, the mean scores of psychological resilience of university students in two-year degree education were found to be significantly higher than the averages of university students in master's degree. In addition, the general self-efficacy-maintenance effort/persistence averages of university students in two-year degree education were found to be significantly higher than those in undergraduate education. When the GPA's are evaluated in terms of educational status, it has been determined that the GPA averages of the master's degree students are significantly higher than the GPA of the two-year degree students and the GPA of the undergraduate students. The findings of the study are discussed and suggestions for future research are presented.

**Keywords:** Covid-19, pandemic, education, psychological resilience, self-efficacy, motivation, students, success

\* This study was produced from the master thesis prepared by the first author under the supervision of the second author.



## Özet

Aralık 2019’da Çin’in Wuhan kentinde ortaya çıktığı belirtilen SARS - CoV -2 bir çok alanda sorunlar yaşanmasına neden olan bir sağlık sorunudur (WHO, 2021). Üniversite öğrencilerinin pandemi kısıtlamalarına bağlı olarak yaşadıkları eğitimdeki değişiklikler de pandeminin beraberinde getirdiği sorunlardan biri olarak değerlendirilebilir. Bu sebepten, bu çalışmada Covid-19 pandemisi döneminde üniversite öğrenimine devam eden öğrencilerin demografik bilgileri üzerinden psikolojik dayanıklılık, özyeterlik ve başarı odaklı motivasyon düzeyleri incelenmiştir. Araştırmanın evreni üniversite öğrencileridir. Araştırmanın örneklemini yaşları 17-40 arasında değişen 342 üniversite öğrencisi oluşturmuştur. Veriler; 11 sorudan oluşan demografik bilgi formu, psikolojik dayanıklılık ölçeği, genel öz yeterlik ölçeği ve başarı odaklı motivasyon ölçeği ile elde edilmiştir. Cinsiyetlere göre ölçeklerden alınan ortalama puanlar açısından karşılaştırıldığında, üniversite öğrencilerinin cinsiyetlerine göre psikolojik dayanıklılık ölçeği-meydan okuma alt ölçeğinden aldıkları ortalama puanlar arasında anlamlı fark bulunmuştur. Cinsiyete göre başarı odaklı motivasyon ölçeğinden alınan toplam puanlar değerlendirildiğinde kadınların başarı odaklı motivasyon ortalamaları erkeklerin ortalamalarından anlamlı düzeyde yüksek bulunmuştur. Genel not ortalamaları cinsiyet açısından değerlendirildiğinde kadınların genel not ortalamalarının erkeklerin ortalamalarından anlamlı düzeyde yüksek olduğu görülmüştür. Ölçekler eğitim durumu ekseninde değerlendirildiğinde, ön lisans eğitimindeki üniversite öğrencilerinin psikolojik dayanıklılık toplam puan ortalamaları, yüksek lisans eğitimindeki üniversite öğrencilerinin ortalamalarından anlamlı düzeyde yüksek bulunmuştur. Ayrıca, ön lisans eğitimindeki üniversite öğrencilerinin genel özyeterlik-sürdürme çabası/ısrar ortalamaları lisans eğitimindekilerin ortalamalarından anlamlı düzeyde yüksek bulunmuştur. Eğitim durumu açısından not ortalamaları değerlendirildiğinde, yüksek lisanstakilerin genel not ortalamalarının, ön lisanstakilerin ortalamalarından ve lisanstakilerin ortalamalarından anlamlı düzeyde yüksek olduğu tespit edilmiştir. Çalışmanın bulguları tartışılmış ve gelecekte yapılacak araştırmalar için öneriler sunulmuştur.

**Keywords:** Covid-19, pandemi, eğitim, psikolojik dayanıklılık, özyeterlik, motivasyon, öğrenciler, başarı

\*Bu çalışma, birinci yazarın ikinci yazar danışmanlığında hazırladığı yüksek lisans tezinden üretilmiştir.



## BRAIN VOLUME CHANGES IN MAJOR DEPRESSIVE DISORDER: A NOVEL METHOD

Asli Beril KARAKAS<sup>1\*</sup>, Ali Saffet GONUL<sup>2</sup>

<sup>\*1</sup>*Kafkas University, School of Medicine, Department of Anatomy, Kars, Turkey.  
ORCID:0000-0001-6504-6489*

<sup>2</sup>*Ege University, School of Medicine, Department of Psychiatry, İzmir, Turkey.  
ORCID:0000-0003-3522-1359*

### Abstract

**Introduction:** Recent advances in MRI represent a range of useful signals to identify neurodegenerative diseases. Major depressive disorder (MDD) is one of the most common illnesses that falling under the category of mental and behavioral disorders. Although many diseases have been treated or stopped as a result of technological and medical developments, the prevalence of MDD is increasing rapidly all over the world. The aim of this study was to demonstrate the brain volumetric changes in MDD and the healthy controls by using MRICloud method.

**Methods:** This study has been carried out using the archived MRI sections of 18 MDD patients and 18 healthy controls who were screened in the department of Psychiatry, Ege University between the dates of January 2008 and February 2011. Volumetric analyses in whole-brain structures were done with fully-automatic MRICloud method. MRICloud is an online cloud-computing platform, which provides atlas-based whole-brain segmentation of T1-weighted images at multiple granularity levels, and thereby, enables us to access the regional features of brain anatomy.

**Results:** We have found that cerebral cortex, limbic and parietal lobe volumes and, thalamus, pons, postcentral, supramarginal, angular, lingual, cingulate ,superior and middle frontal gyrus significantly decreased in MDD patients compared to healthy controls.

**Conclusions:** Statistically significant decrease was observed in the cortical and subcortical brain volumes in MDD patients. As a result with long-term illness and improper use of drugs, different brain regions may be affected by MDD.

**Keywords:** Magnetic resonance imaging, Major depressive disorder, MRICloud, Segmentation, Volumes.



**YALNIZLIK PROBLEMLERİNE İSLAMÎ ÇÖZÜMLER****ISLAMIC SOLUTIONS to LONELY PROBLEMS****Mehmet ÖZBAŞ<sup>1</sup> Adem DÖLEK<sup>2</sup>**<sup>1</sup>*Erzincan Binali Yıldırım Üniversitesi, Eğitim Fakültesi, Eğitim Bilimleri Bölümü Öğretim Üyesi, Erzincan, Türkiye.*<sup>2</sup>*Erzincan Binali Yıldırım Üniversitesi, İlahiyat Fakültesi, Temel İslam Bilimleri Bölümü Öğretim Üyesi, Erzincan, Türkiye.*<sup>1</sup>*ORCID: 0000-0002-7830-4763*<sup>2</sup>*ORCID: 0000- 0001-7494-1151***Özet**

İnsan, diğer varlıkların aksine sosyal bir varlık olarak yaratılmıştır. Eskiden beri filozoflar bu gerçeği “İnsan tabiatı itibariyle medenidir.” şeklinde ifade etmişlerdir. İnsanın sosyalleşmesi için birçok sebep mevcuttur. Sosyalleşme ve kültürlenmenin en önemli şartlarından biri aidiyet ihtiyacının karşılanmasıdır. Bu nedenle başta aile olmak üzere, ilgili bütün sosyal yapı ve kurumlar, hangi yaş ve sosyal statüde olursa olsun insanların sosyal bir yaşam ağı içinde bulunmasını sağlayıcı tedbir ve önlemleri almak zorundadırlar. Bütün sosyal tarafların, insanları yalnızlığın yol açabileceği tehlikelerden korumaları gerekir. Sosyal çevrelerin, insanlara birliktelik ve aidiyet duygusu kazandırmaları önemlidir. İnsanların, sosyal sorumluluk ve sosyal yaşam şuuru edinerek yaşamlarını idame ettirici etkinliklere yönlendirilmesi sağlanmalıdır. Çünkü bir insanın tek başına her türlü ihtiyacını tedarik etmesi çok zordur. Bu sebeple de farklı şekillerde ihtiyaçlarının karşılanabilmesi için yine başka insanların ve meslek sahiplerinin varlığına zaruraten ihtiyacı vardır.

İnsanları yalnızlığa iten sebepler; bencillik, kibir/büyükleme, makamına/mevkisine güvenme, malına güvenmek, dünyevileşme, cimrilik, sosyal medya ve iletişim araçları, özgüven kavramının yanlış anlaşılması, cehalet ve hırs-haset gibi durumlardır. Yalnızlığa temel teşkil eden bu amiller, fertler üzerinde mutsuzluklar, psikolojik ve sosyal travmalar, bunalımlar; hatta intihar gibi durumlar meydana getirmektedir. İnsanları yalnızlığa iten bu âmiller tek tek ele alınarak bu amillerin oluşturacağı problemlere İslami kaynaklarda belirtilen çözüm yolları açıklanacaktır.

Bu araştırmanın amacı, insanları yalnızlığa sevk eden sebepler, bu sebeplerin oluşturduğu problemler ve bu problemlere İslami çözüm yollarının neler olduğunu tespit etmek olarak belirlenmiştir. Bu çalışmada yalnızlık probleminin araştırılmasında yöntem olarak, literatüre dayalı kaynak taraması modeli kullanılacaktır. Yalnızlık probleminin çözümüne ilişkin İslami çözüm yolları ile ilgili olarak geniş kapsamlı ve oldukça objektif bir literatür taraması yapılacaktır.

**Anahtar Sözcükler:** Yalnızlık, Sosyalleşme, Bencillik, İslami Çözüm.

**Abstract**

Man was created as a social being, unlike other beings. Philosophers have long recognized this truth as “Man is civilized by nature.” Have expressed. There are many reasons for human socialization. One of the most important conditions of socialization and acculturation is to meet the need for belonging. All social partners need to protect people from the dangers of loneliness. It is important that social circles give people a sense of to get harness and belonging. It should be ensured that people are guided to activities that sustain their lives by acquiring social responsibility and social life



consciousness. Because it is very difficult for a person to supply all his needs alone. For this reason, in order to meet their needs in different ways, they necessarily need the presence of.

Reasons that push people to loneliness; selfishness, arrogance/arrogance, confidence in one's position/position, trusting in his/her property, worldliness, stinginess, social media and communication tools, misunderstanding of the concept of self-confidence, ignorance and greed-envy. These factors that form the basis of loneliness, unhappiness on individuals, psychological and social traumas, depressions; and even commit suicide. These factors that push people to loneliness will be handle done by one and the solutions to the problems that these factors will create will be explained from Islamic sources.

The aim of this research is to determine the reasons that lead people to loneliness, the problems caused by these reasons and what are the Islamic solutions to these problems. In this research, literature-based literature review model will be used as a method to investigate the loneliness problem. A comprehensive and quite objective literature review will be conducted on Islamic solutions to the problem of loneliness.

**Keywords:** Loneliness, Socialization, Selfishness, Islamic Solution.



**DEİZMİN ÇIKMAZLARI****DAILS OF DEISM****Dr. Mehmet Cüneyt GÖKÇE**

Harran Üniversitesi

<https://orcid.org/0000-0002-8382-3787>**Özet**

Deizm, felsefî bir terimdir. Aristo'nun Allah anlayışından esinlenen ve XVI. Yüzyıl Avrupa'sında ortaya çıkmış bir inanç biçimidir. Bildiğiniz gibi Aristo, Allah'ı yaratan olarak kabul ediyor, yöneten olarak kabul etmiyor. "Allah âlemi ve içindekileri yarattı bir kenara çekildi" diyor. Bu zihniyete göre Allah'ın insanlarla bir ilişkisi yoktur. "Akıl olduktan sonra, ne peygambere ve ne de vahye ihtiyaç vardır. İnsan yaşam ilkelerini kendi aklıyla belirler. Dua ve ibadetlere de ihtiyaç yoktur." İşte bu görüşleri benimseyen kimselere de "deist" denilir. Bildiğiniz gibi Kur'an'a göre Allah hem yaratan ve hem de yönetendir. Yöneten olmasaydı Peygamber ve Kitap gönderir miydi?

Anahtar Kelimeler: Deizm, Deist, Nebi

**Abstract**

Deism is a philosophical term. Inspired by Aristotle's understanding of God and XVI. It is a form of belief that emerged in 19th century Europe. As you know, Aristotle accepts Allah as the creator, not as the ruler. "God created the world and everything in it and stepped aside," he says. According to this mentality, God has no relationship with humans. "After there is reason, neither prophet nor revelation is needed. Man determines the principles of life with his own mind. There is no need for prayers and worship." Those who adopt these views are called "deists". As you know, according to the Qur'an, Allah is both the creator and the ruler. If there was no ruler, would he have sent the Prophet and the Book?

**Keywords:** Deism, Deist, Prophet



## THE IMPACT OF ARTIFICIAL INTELLIGENCE - THE FUTURE OF HIGHER EDUCATION

**Đinh Thi My Hanh<sup>\*1</sup>, Ngô Tứ Thành<sup>\*2</sup>, Tran Van Hung<sup>\*3</sup>**

<sup>1</sup> *The University of Danang, PhD student of Hanoi University of Science and Technology*

<sup>2</sup> *Hanoi University of Science and Technology*

<sup>3</sup> *The University of Danang - University of Science and Education, Danang, Vietnam*

### Abstract

Introduction and application of modern technologies in teaching and learning has developed rapidly over the past 30 years. So far these technologies have been increasingly showing a key role in the success of education by creating new methods to learn, exchange, share, and work. Artificial intelligence is presently one of the modern and advanced technologies with offered outstanding benefits such as automating basic operations in education; creating solutions to personalize learning. Besides, data provided by Artificial intelligence can help change the way schools search, teach, and support learners. The teacher's role can change in a more positive way ... In addition to analyzing the benefits of AI in education, the article also focuses on suggesting the ways that Artificial intelligence helps in education as well as possible impacts that Artificial intelligence can bring in teaching and learning at higher education institutions in the future.

**Keywords:** Artificial intelligence; Education; Impact; Benefit; Modern technology.



## II. MEŞRUTİYET DÖNEMİNDE EĞİTİM ALANINDAKİ BAŞLICA DÜZENLEMELER VE YAYINLAR (1908-1918)

### INITIAL REGULATIONS AND PUBLICATIONS IN THE FIELD OF EDUCATION DURING II. CONSTITUTIONAL PERIOD (1908-1918)

**Hayati DOKDEMİR<sup>1\*</sup>, Mehmet ÖZBAŞ<sup>2</sup>**

<sup>1</sup>Ege Üniversitesi, Sosyal Bilimler Enstitüsü, Türk Tarihi Anabilim Dalı, Doktora Öğrencisi, İzmir, Türkiye.

<sup>2</sup>Erzincan Binali Yıldırım Üniversitesi, Eğitim Fakültesi, Eğitim Bilimleri Bölümü Öğretim Üyesi, Erzincan, Türkiye.

\* ORCID: 0000-0003-0735-4859

<sup>2</sup> ORCID: 0000-0002-7830-4763

#### Özet

Bu araştırmanın amacı, II. Meşrutiyet Dönemi'nin Türk eğitim sistemine etkilerini ortaya koymaktır. Araştırma sürecinde, alanyazına dayalı olarak, II. Meşrutiyet Dönemi'nde, Türk eğitim sisteminde meydana gelen başlıca yasal ve yönetsel düzenlemelerin neler olduğu belirlenmeye çalışılmıştır. Ayrıca çalışmada, II. Meşrutiyet Dönemi'nde, eğitim bağlamında yapılan başlıca yayınların neler olduğu saptanmaya çalışılmıştır. Araştırma sürecinde, öncelikle II. Meşrutiyet Dönemi'ne ilişkin geniş kapsamlı bir alanyazın çalışması yapılmıştır. II. Meşrutiyet Dönemi eğitim hayatının özelliklerini ve bu konuda sürdürülen reform çabalarının karakterini anlayabilmek açısından, dönemin siyasi gelişmeleri ile tarihi arka planının kısaca hatırlanmasına çalışılmıştır. II. Meşrutiyet Dönemi, Padişah II. Abdülhamid Dönemi'ni kapsamaktadır. Sultan II. Abdülhamid'in yaklaşık otuz yıl süren mutlakiyet rejimi, daha baştan itibaren kendini şiddetli eleştirilerin hedefi haline getirmiştir. II. Meşrutiyet Dönemi, İttihat ve Terakki Cemiyeti (Partisi)'nin liderliğinde, gelişen bir dizi olay sonucunda, 23 Temmuz 1908 tarihinde Anayasanın tekrar yürürlüğe konulması ile başlamıştır. II. Meşrutiyet Dönemi'nde, 1869 tarihli *Maarif-i Umûmiye Nizamnâmesi*'nin oluşturduğu eğitim sisteminin yeniden reforma tâbi tutulması sağlanmıştır. 1913 Tarihinde, *Tedrisat-ı İptidaiye Kânun-ı Muvakkatı* kabul edilmiştir. Bu kanunla iptidâi ve rüşdî olarak ikiye ayrılmış olan ilköğretim okulları "*Mekâtib-i İptidâiye-i Umûmiye*" adı altında birleştirilmiş ve altı yıllık iptidâi mektepler açılmaya başlanmıştır. 1915'te *Ana Mektepleri Nizamnâmesi* yayımlandıktan sonra büyük kentlerde anaokullarının sayısı artmaya başlamıştır. Dârülfünûn ve Dârülmualimîn mezunları *Encümen-i Muallimîn* adında bir örgüt kurmuşlardır. İstanbul'da İdâdî, Rüşdî ve İptidâi okulların öğretmenleri tarafından *Muhafaza-i Hukuk-ı Muallimîn Cemiyeti* adında ikinci bir meslek örgütü kurulmuştur. Bu iki meslek örgütü, 1908 yılı sonlarında *Cemiyet-i Muallimîn* adı altında birleşmişlerdir. Özellikle İstanbul merkezli olmak üzere eğitimi konu alan birçok dergi yayın hayatına başlamıştır. II. Meşrutiyet Dönemi'nde orta eğitim alanında yeni bir uygulama başlatılmış, ilki İstanbul'da olmak üzere Vilâyet merkezlerindeki 10 idâdî, sultani'ye dönüştürülerek, bu sultanilere rüşdiye üzerine üçer yıllık iki devresi olan, ikinci devresi fen ve edebiyat kollarına ayrılan bir yapı kazandırılmıştır. II. Meşrutiyet dönemi, çeşitli alanlarda iyi eğitilmiş memur ihtiyacını karşılamaya dönük okulların açıldığı ve geliştirildiği bir dönem olmuştur. Medrese eğitiminin ıslâhı konusunda ilk ciddi çabalar II. Meşrutiyet döneminde gündeme gelmiştir. Meşrutiyet Dönemi'nin nisbî özgürlük havasından yararlanan Azınlıklar da eğitim örgütlerine yönelik her türlü denetim girişimine karşı çıkarak, bu yoldaki çabaları başarısızlığa uğratmışlardır.

**Anahtar Sözcükler:** II. Meşrutiyet, Türk Eğitim Sistemi, Osmanlı İmparatorluğu'nun Son Dönemi.



## Abstract

The purpose of this research is to reveal the effects of the II. Constitutional Period on Turkish education system. In the research process, It was tried to determine what main legal and administrative regulations occurred in the Turkish education system during the II. Constitutional Period based on the literature. In addition, main publications produced in the context of education in the II. Constitutional Period were tried to be determined in the study. In the research process, first of all, a comprehensive literature study on the II. Constitutional Period was conducted. In order to understand the characteristics of the education life of the II. Constitutional Period and the character of the reform efforts carried out, it was tried to briefly recall the political developments and historical background of the period. II. The Constitutional Period covers the period of the Sultan Abdulhamid II. The absolutist regime of Sultan Abdulhamid II, which lasted for nearly thirty years, made itself the target of severe criticism from the very beginning. The II. Constitutional Period started with the re-enactment of the Constitution on July 23, 1908, as a result of a series of events under the leadership of the Committee of Union and Progress (Political Party). In the II. Constitutional Period, the education system, which was formed by *General Regulations for National Education* of 1869, was reformed again. In 1913, *Tedrisat-ı İptidaiye Kânun-ı Muvakkatı* was accepted. With this law, primary schools, which were divided into two as primary and secondary schools, were united under the name of "*Mekâtib-i İptidaiye-i Umûmiye*" and six-year primary schools began to be opened. After *the Regulation of Kindergartens* was published in 1915, the number of kindergartens started to increase in big cities. Dârülfünûn and Dârülmua'llimîn graduates established an organization called *Encümen-i Muallimîn*. A second professional organization named *Muhafaza-i Hukuk-ı Muallimîn Organization* was established by the teachers of İdâdî, Rüşdî and İptidâî schools in Istanbul. These two professional organizations united under the name of *Cemiyet-i Muallimîn* at the end of 1908. Many magazines on education, especially Istanbul-based, started their publication life. During the II. Second Constitutional Era, a new practice was initiated in the field of secondary education, and 10 high schools in the provincial centers, the first of which were in Istanbul, were converted into sultani, and these sultanis were given a structure that had two three-year terms over the junior high school and the second period was devoted to science and literature. The II. The Constitutional period was a period in which schools were opened and developed to meet needs for well-trained civil servants in various fields. The first serious efforts to improve the madrasa education came to the fore in the II. Constitutional Period. Minorities, who benefited from the relative freedom atmosphere of the II. Constitutional Era, opposed all kinds of control attempts against educational organizations and failed their efforts in this direction.

**Keywords:** II. Constitutional Period, Turkish Education System, Last Period of Ottoman Empire.



## THE USE OF APPEALING TECHNOLOGIES TOWARDS ENSURING HIGH LEVEL OF INTERACTIVITY IN LEARNERS AND TEACHERS

**Ismail Olaniyi MURAINA<sup>1\*</sup>, Sakibu Olajide SAIBU<sup>2\*\*</sup> & Adebisi Sylvester OLUDE<sup>3\*\*\*</sup>**

*<sup>1</sup>Adeniran Ogunsanya College of Education Otto/Ijanikin, Lagos Nigeria*

*ORCID: 0000-0002-9633-6080*

*<sup>2</sup>Adeniran Ogunsanya College of Education Otto/Ijanikin, Lagos Nigeria*

*ORCID: 0000-0002-7922-4861*

*<sup>3</sup>Adeniran Ogunsanya College of Education Otto/Ijanikin, Lagos Nigeria*

*ORCID: 0000-0001-7896-9362*

### Abstract

The study examined the multi-facet importance and contribution of interactive whiteboard in the smooth delivery of instruction in the classroom. In order to underpin teaching effectiveness in the classroom, relevant instructional technology must be used to bring about desired outcome in learners. The research designed used was pure experimental approach with the use of 40 Junior Secondary School students (JSS) to form the sample of the target population. A validated and reliable research instrument tagged ATICL (Achievement Test In Computer Logic) was used to collect data from the respondents (students). The results collected were collated and analysed via SPSS using T-test statistical tool. Findings showed that the use of interactive whiteboard in the classroom gingered both learners and teachers to be active from beginning to the end of the instruction. Likewise, it aroused the interest and increased students' participation tirelessly in the classroom. It was also understood that the use of interactive whiteboard has nothing to do with the gender difference of learners exposed to the gadget. This study contributed to the existing knowledge by making all educational stakeholders to embrace and contribute to the use of appealing technology that can boost high level of interactivity in both learners and teachers. It is recommended that educational ministries at the State and Federal levels should encourage schools by subsidizing the installation of the interactive whiteboard across secondary schools and also encourage teachers and students to engage in periodic and continuous training on the use of interactive whiteboard.

**Keywords:** IWB, Interactivity, Technologies, ICT.



## WHEEL OF LIFE: TEACHING SCIENCE THROUGH AN ADAPTED VERSION OF SPIN THE WHEEL GAME

<sup>1\*</sup>Elesta Sawadi, <sup>2</sup>Dencisca Ellyvia Sidin

<sup>1,2</sup>, *Early Childhood Education, Keningau Vocational College, Keningau, Sabah, Malaysia*

### Abstract

The research attempted to examine a teaching aid designed to teach basic learning skills of recognizing, naming, and describing among preschool children on a science topic. The teaching aid referred to as “Wheel of life” is based on the conventional concept of a board game that allows unpredictability and control. Preschool teachers often find it difficult to get children to pay attention during class and this could hinder them from gaining understanding on how to link different pieces of information and explain them properly in any specific topic. Thus, this research aimed to explore the potential of this game in increasing children’s level of engagement in the lesson to the extent of being able to link different pieces of information. A popular science topic related to life cycles of different animals was chosen since it was one of the most difficult topics to teach in science lessons for preschool children. A group of six children, along with a teacher, was chosen as subjects for this study. There were two research methods: observation through a checklist on the children’s behavioral responses and semi-structured interviews for the parents and teachers. The findings from this research revealed children’s increased level of engagement in the classroom as they challenged themselves to identify the right answers within a competitive yet collaborative atmosphere.

**Keywords:** Teaching Aids, Screen Time, Preschool, Board Game, Basic Learning Skills



## A META-THEMATIC ANALYSIS OF THE EFFECTS OF SOCRATIC (QUESTION-ANSWER) METHOD ON EDUCATION

**Yunus DOĞAN<sup>1\*</sup>, Veli BATDI<sup>2</sup>, Hanen ABAZEED<sup>3</sup>**

*<sup>1</sup>Dr., Firat University, School of Foreign Languages, Elazığ, Turkey*

*ORCID: <https://orcid.org/0000-0002-5038-3404>*

*<sup>2</sup>Assoc.Prof.Dr., Gaziantep University, Gaziantep Education Faculty, Department of Curriculum & Instruction, Gaziantep, Turkey*

*ORCID: [0000-0002-7402-3251](https://orcid.org/0000-0002-7402-3251)*

*<sup>3</sup>Kilis 7 Aralık University, Muallim Rifat Education Faculty, Master's Student*

### Abstract

The teacher in the educational environment is expected to make the student active rather than passive, teach students how to access information, and enable students to enjoy the lesson. In order for this to happen, the most accurate methods and techniques should be selected and used appropriately. The question-answer method is very important for students and teachers in terms of learning and assessment. In particular, teachers who acquire the skill of asking questions can apply this method effectively. This research, which includes the investigation of the effect of the question-answer method on the success of the student, is very important for the field in eliminating the deficiencies in this subject. The aim of this study is to examine the effect of question-answer methodology on education for teacher candidates. In this study, the opinions of teachers in different fields of study were consulted and the effects of question and answer technique on education were examined. A meta-thematic analysis of qualitative research in the field was conducted. Using the higher education institution and Google Scholar database, five qualitative studies covering the years 2009-2019 were included in the meta-thematic analysis. As a result of the analysis, the positive and negative aspects of the question and answer technique on the teaching and learning process were determined. As a result of the qualitative findings, it was concluded that it can be used as an alternative to some methods. Some discussions were made on how to eliminate the monotony of the method of lecturing with the question and answer method and how to make the learning and teaching process more effective. At the same time, the principles of effective use of the question and answer method were also explained. These principles are important in terms of being a guide for teacher candidates.

**Key Words:** teaching methods, question-answer method, socratic method, instructional techniques



**ИСТОРИЧЕСКИЕ КОРНИ ПРОБЛЕМЫ ВОСПИТАНИЯ СОЦИУМА И ИНДИВИДА.****HISTORIKAL ROOTS OF THE PROBLEM OF EDUCATION OF THE INDIVIDUAL AND SOCIETY****Bagirova Tamilla Ali kızı***Doctor of Pedagogical Sciences, Professor**Azerbaijan State Pedagogical University, Faculty of Arts and Physical Education**Department "Music and technology of its teaching"*

ORCID ID: 0000-0003-3322-9947

**Резюме**

В статье рассматриваются исторические корни проблемы воспитания, на сегодняшний день являющейся прерогативой педагогической науки, с философской точки зрения. Основная задача общества в современный период – это воспитание всесторонне и гармонично развитой личности. Сам процесс воспитания как сложное общественное явление осуществляет процесс, который изучается целым рядом общественных наук, в том числе, философией, педагогикой, социологией и другими областями знаний. Философия предполагает пассивную, наблюдательную позицию за общностями людей на всех этапах исторического развития. Однако данная пассивная роль является платформой для формирования отношения, выработки стратегического направления для изучения и развития прикладных сфер наук, к которым относится и педагогика. Общественное сознание как на уровне социума, так и индивидуальное, строится, а позднее материализуется прежде всего посредством языка, который претерпевает существенные изменения с момента зарождения речи. Древнейшие культуры Египта, Шумера, Вавилонии, Ирана, Индии, Китая донесли до нас высочайшие образцы гуманистического мышления.

Немаловажным фактором духовной жизни общества, формирующем сознание человека, воспитывающем в нем гуманистические идеи являлась, религия. Религия, как один из пластов надстройки общества, во все времена играла огромную роль в жизни каждого народа. Задача религии – укрепление в душе каждого человека этических норм, будь то млад или стар, поднятие его от уровня первичных инстинктов до степени осознания своего места в обществе. Философская мысль, отражающая эстетические, этические, религиозные концепции во все времена получила ярчайшее выражение в творчестве мыслителей эпохи Ренессанса. Творчество величайших поэтов эпохи Восточного Ренессанса – Рудаки, Фирдоуси, О Хайям, Джами, Низами Гянджеви пронизаны призывом к человечности, гуманности. На их творениях воспитывались целые поколения молодёжи.

Обобщая вышеизложенное, мы можем отметить, что проблема воспитания человека не нова и ведет свой путь зарождения и развития с древнейших времен. В данном процессе языковое воспитание – наиболее важное, ибо дает познание и нравственную ориентацию человеку в окружающем его мире. Поэтому язык – не менее ценное и подлежащее охране явление, чем памятники материальной культуры.

Ключевые слова: корни, проблема, воспитание, социум, индивид.



## Abstract

The article examines the historical roots of the problem of education, which today is the prerogative of pedagogical science, from a philosophical point of view. The main task of society in the modern period is the upbringing of a comprehensively and harmoniously developed personality. The very process of upbringing as a complex social phenomenon implements a process that is studied by a number of social sciences, including philosophy, pedagogy, sociology and other areas of knowledge. Philosophy presupposes a passive, observant position of the communities of people at all stages of historical development. However, this passive role is a platform for forming attitudes, developing a strategic direction for the study and development of applied fields of science, which include pedagogy. Social consciousness, both at the level of society and individual, is built and later materialized primarily through language, which undergoes significant changes since the inception of speech. The most ancient cultures of Egypt, Sumer, Babylonia, Iran, India, China brought to us the highest examples of humanistic thinking. Religion was an important factor in the spiritual life of society, shaping the consciousness of a person, bringing up humanistic ideas in him. Religion, as one of the layers of the superstructure of society, at all times played a huge role in the life of every nation. The task of religion is to strengthen ethical norms in the soul of every person, whether young or old, raising him from the level of primary instincts to the degree of awareness of his place in society. Philosophical thought, reflecting aesthetic, ethical, religious concepts at all times received the clearest expression in the work of thinkers of the Renaissance. The works of the greatest poets of the Eastern Renaissance - Rudaki, Ferdowsi, O Khayyam, Jami, Nizami Ganjavi are permeated with a call for humanity, humanity. Whole generations of young people were brought up on their creations. Summarizing the above, we can note that the problem of human upbringing is not new and has led its way of origin and development since ancient times. In this process, language education is the most important, because it gives knowledge and moral orientation to a person in the world around him. Therefore, language is no less valuable and subject to protection phenomenon than monuments of material culture.

**Key words:** roots, problem, education, individual, society.



**REVIEW ON FLEXIBLE TEACHING AND LEARNING**

**Dr Adam Andani MOHAMMED<sup>1</sup>, Dr Mpawenimana Abdallah SAIDI<sup>2</sup>,  
Dr Bougangue BASSOUMAH<sup>3</sup>**

*<sup>1</sup>Social Work Studies, <sup>1,2</sup>Faculty of Social Sciences and Humanities, Universiti Malaysia  
Sarawak UNIMAS, Malaysia <sup>1</sup>maandani@unimas.my/ORCID 0000 0001 9715 4353*

*<sup>2</sup>International Studies,*

*<sup>3</sup>Department of Population & Reproductive Health, School of Public Health, University for  
Development Studies (UDS), Tamale, Ghana*

**Abstract**

The current pandemic has created significant challenges on aspects of general life and for higher education across the globe. Owing to this situation, governments and education departments came up with various forms of transformative responses like social isolation in schools and on campuses, situational curriculum development and alignment with full online delivery of lectures. This situation calls for teaching and learning design that accommodates academic abilities of all students in order not to create a gap between high and low academic ability learners. In order to strengthen the collective response to innovative higher education, the delivery of knowledge should be flexible enough to overcome the existing challenges that confront students due to the current hybrid academic activities. This systematic review focused on understanding flexible learning with appropriate Learning Management System, dimensions of learning systems and application of online learning to cater for the learning needs of all. In order to source relevant data, Google Scholar is used as a tool to access the major databases provided by Taylor and Francis, Emerald, Elsevier, Springer, Sage and others. Empirical evidence used in this study is based on secondary data and qualitative analysis technique adopted to assess issues on transformative teaching and learning. The review revealed blended learning to be the most effective learning system. It also found that the benefit of online learning in terms of the use of technology in teaching and learning is proven to be enormous. This study may contribute critical information about new tools in knowledge delivery through the ICT infrastructure to facilitate flexible learning in higher institutions under the current and similar future situations.

**Keywords:** management system, global pandemic, infrastructure, blended learning



## ETHNO-CULTURAL ASPECTS OF LEARNING ATTITUDES

**Marlena Daneva <sup>1\*</sup>, Marina Nikolova <sup>2\*\*</sup>**

*<sup>1\*</sup>Technical university of Sofia, Faculty of Engineering and Pedagogy of Sliven, Department of Pedagogy and Management, Sliven, Bulgaria, candidate Ph D, assistant*

*<sup>2\*\*</sup>Technical university of Sofia, Faculty of Engineering and Pedagogy of Sliven, Department of Pedagogy and Management, Sliven, Bulgaria, doctor of pedagogical sciences, professor,*

### Abstract

The article discusses the issue of attitudes towards teaching children of different nationalities. The essence of the concept of ethnicity and its specificities are considered on the basis of the views of specialists working in this field. Attitude towards learning is associated with 'attitude' as a mental state of readiness for education-related activities. It is determined by past experience and has a decisive influence on behavioral acts. Helping to shape correct attitudes towards learning also influences learning motives but is more resilient and complex than them. The attitude towards learning in children and students is formed by cultural values and norms transmitted by their parents or guardians. The presence of ethnic or cultural stereotypes among parents affects the formation of appropriate attitudes in their children, including the importance of education as a value or its absence. Intercultural interaction in the educational environment will have a special weight in the direction of cognition of the ethno-aspects of personality values and the use of this knowledge for the formation of positive learning motivation. Studying the specifics of attitudes towards learning in a particular ethnic community leads to behavioral predictability of students in this group. Understanding the aspects of this attitude is a prerequisite for finding methods and means to formation a positive motivation for learning. Deciphering the multifaceted ethno-cultural attitudes to education improves the quality of education. This article introduces existing interventions that have proven to be ineffective to changing attitudes towards learning across a country that consists of diverse communities, identified by their ethnocentric characteristics. We propose that educational policies based on a vision of equal attitudes toward learning is not adequate in integrating and motivating students from diverse ethnocentric backgrounds.

**Key words:** ethnicity, attitude, ethnocentrism, motives, stereotypes.



## COVID19, FRAGILITY, AND HIGHER EDUCATION: HOW INTER-CORRELATED THEY ARE?

Ali BAYKAL \*

\*Bahçeşehir University, Faculty of Educational Sciences, Istanbul, Turkey.

### Abstract

The mutual interdependence between countries in the world is increasing day by day with communication, transportation and therefore commerce. Myriad of different reasons converge upon social problematic results. While the reasons for the fragility of states are complex, they are easily predictable. Various Fragile States Indicators (FSI), defined and compiled by comp by the international Fund For Peace (FFP) institution. It is a tool that can be used to predict situations in which a state would not be capable of managing these pressures. The indicators of fragility and methods established within the framework of relevant social sciences constitute an early warning system. On the other hand, within the last two years Covid19 came into the global society. Systems thinking postulates that any input to any system reconfigures the whole system and its components. So did Covid19 and its mutants. All economic and social systems were exposed to this input and all reacted and reflected upon. At the very beginning it seemed almost all countries to have been under the same conditions. One of the major questions is if the symptoms of Covid19 are correlated with the present strengths and weaknesses of countries. There is a need for approaches that fuse rather than separate qualitative and quantitative approaches in order to prevent and reduce vulnerability. The components that constitute individual and social development indicators are ultimately the causes or the results of education. Therefore, it is possible that education is expected of being one of the main factors that constitute or repair fragility. Because it is only possible to see the problems before they surface with valid data, correct methods and objective procedures. It is imperative that decision-makers have access to such information in order to implement effective policies. The purpose of this study is to draw some inferences from the meshwork of relationships between Covid19 data, Human Development and educational indicators such as university rankings, PISA scores and finally fragility indicators. The data compiled from open international sources (WHO, UNDP, OECD, FFP, THE) will be used to extract comparative and correlational inferences. Hopefully the bits and pieces of information derived will converge upon a set of knowledge that is essential for wisdom.

**Keywords:** Covid19; Fragility Indicators; Human Development Indicators; World University rankings



**LATİN AMERİKA'DA KADINA YÖNELİK ŞİDDET****VIOLENCE AGAINST WOMEN IN LATIN AMERICA****Tolga ÖZKAPTAN<sup>1\*</sup>**

<sup>\*1</sup>Ankara Üniversitesi, Latin Amerika Çalışmaları Anabilim Dalı, Yüksek Lisans Öğrencisi, Ankara, Türkiye.

Orcid: 0000-0001-9952-4549

**Özet**

Latin Amerika ve Karayipler Ekonomik Komisyonu (ECLAC), bölgede kadınlara ve kız çocuklarına yönelik toplumsal cinsiyete dayalı şiddetin devam etmesi ve yüksek oranda kadın cinayetleri konusunda endişesini dile getirmiştir. Komisyonun Latin Amerika ve Karayipler için Cinsiyet Eşitliği Gözlemevi'ne (GEO) bildirilen en son resmi verilere göre, 2019'da 24 ülkede (18'i Latin Amerika ve 6'sı Karayipler'de) 4.640 kadın cinayeti vakası kaydedilmiştir. Kadınların ve kızların durumu, Covid-19 ile birlikte ülkeler tarafından sunulan destek ağları ve yardımlarla ilgili hizmetlere erişimlerini sınırlayan hareket kısıtlamaları altında daha vahim hale gelmiştir.

Cinsiyete yönelik şiddet bölgede sistematik olarak yaşanmakta, sınır tanımaz bir şekilde her yaştan kadın ve kız çocuğunu etkilemekte ve işyerlerinde, siyasi ve toplumsal katılım bağlamında, ulaşımda, sokakta, okullarda ve eğitim merkezlerinde, sanal ortamda ve şüphesiz evlerin içinde olmak üzere her türlü ortamda yer almaktadır. Bu durum, Birleşmiş Milletler sisteminde 'gölge pandemi' olarak adlandırılmaktadır. Bölgedeki altı ülkede yapılan ulusal anketlere göre, kadınların %60 - %76'sı (her 3 kişiden yaklaşık 2'si) hayatlarının farklı alanlarında toplumsal cinsiyete dayalı şiddetin kurbanı olmuştur. Buna ek olarak, ortalama olarak her 3 kadından 1'i, geçmişte veya şu anda yakın partneri olan bir failin elinde, ölümcül şiddet kapsamında kadın cinayetiyle sonuçlanan fiziksel, psikolojik ve/veya cinsel şiddete maruz kalmış ve halen kalmaktadır.

Bölgedeki hükümetler, ECLAC'ın Latin Amerika ve Karayipler'deki Covid-19 Gözlemevi'ni bu dönemde kadınlara yönelik şiddetle mücadeleyle yönelik 90'dan fazla önlem konusunda bilgilendirmiştir. Özellikle göze çarpan durum, bu probleme yardımcı olacak hizmetlerin tamamı veya bir kısmının gerekli olduğu ilan edilen ülkelerin tepkide bulunmasıdır. Bununla birlikte ECLAC, uzaktan oluşturulan yöntemlere ilişkin uyumun çok karmaşık ve adalet erişimi sınırlandırmakta olduğu ve bu durumun mevcut suçların cezasız kalma riskini artırmakta olduğu konusunda uyarıda bulunmaktadır. Bu çalışmada Latin Amerika ve Karayipler'de kadına yönelik şiddet ve alınması planlanan önlemler literatür taraması kapsamında incelenmektedir.

**Anahtar Kelimeler:** Kadın, Şiddet, Latin Amerika

**Abstract**

The Economic Commission for Latin America and the Caribbean (ECLAC) explained its worries over the ongoing violence against women and girls in the region and soaring rates of femicide or feminicide. As stated in the updated official data released to the Commission's Gender Equality Observatory for Latin America and the Caribbean (GEO), 4,640 cases of femicide were recorded in 24 countries in 2019 (18 in Latin America and 6 in the Caribbean). The state of women and girls has risen under the constraint on movement ruled by countries even with Covid-19, which restricted their contact to benefit via networks and assistance-related services.

Gender violence takes place consistently in the region. The situation has no boundaries, influencing women and girls of all ages and occurring in all sorts of spaces: in workplaces, in behalf of of political



and society participation, on transportation and in the street, in schools and educational centers, in cyberspace and doubtlessly within homes. This is also called a ‘shadow pandemic’ in the United Nations system. In agreement with the national surveys from six countries in the region, among 60% and 76% of women, around 2 out of every 3, has been the victim of gender-based violence in distinct areas of their life. Moreover, almost 1 out of every 3 women has been a victim of or is currently suffering physical, psychological and/or sexual violence at the hands of a criminal who was, or is, her companion, which involves lethal violence risk: femicide.

Governments in the region have informed ECLAC’s Covid-19 Observatory in Latin America and the Caribbean of more than 90 measures objected to challenging violence against women during this period. Notably, standing out is the response of countries where all or part of the services to help in this scourge were stated significant. However, the adaptation to remote modalities has been very complex and it limits access to justice, which increases the risk of impunity surrounding these crimes, ECLAC warns. In this study, violence against women in Latin America and the Caribbean and measures planned to be taken are examined within literature review.

**Key Words:** Women, Violence, Latin America



## LIFESTYLE BEHAVIORS AND EFFECT OF COVID-19

**Manasi, Khidkikar<sup>1</sup>, Dr. Walter Andzel<sup>2</sup>, Timothy Marshall<sup>3</sup>, Thomas Koc<sup>4</sup>, Kim Spaccarotella<sup>5</sup>, & Rachael Milbrook<sup>6</sup>**

*School of Health and Human Performance, Kean University, Exercise Science, Union, NJ, USA*

*School of Physical Therapy, Kean University, Union, NJ, USA*

### Abstract

COVID-19 caused by the SARS-CoV-2 (Severe Acute Respiratory Syndrome - coronavirus-2) is a highly contagious disease which was declared as a global pandemic by WHO on March 11th, 2020. As of April 30, 2021, over 3 million deaths have been reported of COVID-19, where the United States has the leading number of deaths by 18.11% i.e. 572,190.

COVID-19 is associated with dysregulated immune response causing levels of inflammation and pre-existing comorbidities such as hypertension, diabetes, obesity and cardiovascular diseases increase the risk. Lifestyle behaviors like exercise, nutrition, sleep and stress have been associated with these comorbidities that impair the immune response causing chronic inflammation. The purpose of this study is to review correlation between COVID-19 and lifestyle behaviors based on the common link of inflammatory immune response. Each lifestyle behavior has been evaluated using independent hypotheses.

An online survey was created to collect data anonymously from participants over the age of 18 years and self reported positive test of COVID-19. The data included demographics, lifestyle behaviors and the level of severity of COVID-19. For statistical analysis, Spearman Rho's coefficient with alpha of 0.05, beta of 0.8 and correlation coefficient of 0.6 have been used.

The statistical analysis showed no correlation between sleep, exercise or stress levels reported with severity of COVID-19 symptoms. Nutritional data was classified into 6 categories of fruit, whole grains, vegetarian food sources, sugar and dairy where except dairy none of the categories reported a statistically significant correlation with severity of COVID-19. The dairy intake, a good source of vitamin D, was found to have statistically significant negative correlation ( $r_s(25) = -.415$ ,  $p = .039$ ) with severity of symptoms. This result supports the finding from various research studies that link higher levels of vitamin D with lower severity of COVID-19.

**Keywords:** COVID-19, Comorbidities, Immune Response, Lifestyle Behaviors



## STUDENTS' PERSPECTIVES ON REAL AND IDEAL USES OF INSTRUCTOR'S TIME

**Tami Meredith<sup>1\*</sup>, Maryanne Fisher<sup>2†</sup>**

*<sup>1</sup>Dalhousie University, Faculty of Computer Science, Halifax, Canada.*

*<sup>2</sup>Saint Mary's University, Faculty of Science, Department of Psychology, Halifax, Canada.*

### Abstract

The reality of academia is that most instructors divide their time between teaching tasks, doing research, supervising students, and performing other administrative duties. After accounting for all other activities within a 40-hour workweek, we determined that instructors at a typical Canadian university have approximately 7 hours for teaching related tasks outside of the classroom such as creating and preparing lectures, making handouts, marking, grading, holding office hours, managing teaching assistants, or answering course related e-mail. We asked 99 current students to allocate an instructor's time, within the 'real' 7-hour constraint. We also asked them how they would 'ideally' allocate an instructor's time if there was no time constraint. Office hours were considered the most important use of time, with grading and exam/assignment preparation being listed next, while administrative activities were viewed as the least important. We identified sex differences, between male and female students, in their thoughts about how instructors should allocate their time with respect to office hours, grading, and preparation of examinations. In addition, all students believed that the 7-hour limit is unrealistic and does not provide an instructor with adequate time to support students effectively. We found that when instructors attempt to balance their time across their numerous responsibilities within a work week, there is insufficient time to satisfy student expectations. This conflict between student expectations and the limitations on an instructor's time creates a challenging and stressful situation that needs to be addressed so that instructors can effectively and satisfactorily fulfil their many responsibilities.

**Keywords:** Science Instruction, Time Use, Student Expectations, Teaching, Stress



## TRANS- DISCIPLINARY RESEARCH: A KEY TO COMPREHEND ADOLESCENT HEALTH

**<sup>1</sup>Prof.Peddiboyina Vijaya Lakshmi and <sup>2</sup>Prof.Palempalli Uma Maheswari Devi**

*<sup>1</sup>Department of Communication and Journalism, Sri Padmavati Mahila Visvavidyalaym, Tirupati, India.*

*<sup>2</sup>Department of Applied Microbiology, Sri Padmavati Mahila Visvavidyalaym, Tirupati, India*

### Abstract

The traditional research approach to address complex adolescent health issues need to be examined as important factors of health include many interrelated factors such as poverty, education, socio cultural norms, institutions and structures, obesity, violence, health services, health communication seeking behaviour and environment. There is a concern that traditional health research and interventions have focused more on biomedical approaches that highlight pathological conditions and associated risk factors rather than addressing the impact of social and ecological issues on adolescence<sup>1</sup>. In the 21st century, Health is defined as a complex interplay of forces from the molecular genetics political and social issues<sup>2</sup>. Adolescence is recognised as key life stage that set the foundation for health in adulthood and for the future healthy societies where young people live in. Despite being thought of as a healthy stage of life, there is significant death, illness and injury in the adolescent years. Adolescents suffer from preventable or treatable diseases like anaemia, reproductive health issues, mental health, Violence, sexual activity etc<sup>3</sup>. The Sustainable Development Goals will put a greater focus on adolescents as recipients of interventions and as decision makers and implementation partners in health-related issues. Hence a multidimensional framework is required to address health problems of today's youth. Scientists working together should emphasize that adolescent research includes the contributions of sociology, anthropology, economics, communication, political science, and other disciplines besides science to prevent and solve public health issues. The Trans-disciplinary research applies the knowledge of different disciplines and creates a common understanding to solve health issues. During the past 2 decades, national and international organizations have called for more effective trans- disciplinary and translational approaches to graduate education. The flexibility, objectiveness and respect for other declines are essential for trans-disciplinary researchers from diverse backgrounds involved in trans- disciplinary research projects related to adolescent health. The proposed study will utilise the medline search & other open resources with keywords transdisciplinary approach, health, adolescence, gaps in interdisciplinary research to review the papers and programmes on trans- disciplinary research applied in public health with special reference to adolescent health for the last ten years. The review indicates no defined guidelines for designing a trans-disciplinary research project exist, but however most studies outlined an iterative approach involving continual reflection and adaptation of the research plan and development of a shared conceptual framework. Several included studies stated that the key to successful trans-disciplinary research projects was good communication and team working skills between researchers and with wider stakeholders<sup>4</sup>. The studies also suggest that fellowship programs in universities with faculty resources should be encouraged to develop a more concentrated trans-disciplinary research track and clinical training with practical intervention to solve health issues of public.



## GUT-BRAIN AXIS IN PARKINSON'S DISEASE

**Busra AKTAS**

Department of Molecular Biology and Genetics, Faculty of Arts and Sciences, Burdur Mehmet Akif Ersoy University, Burdur, Turkey  
<https://orcid.org/0000-0001-9863-683X>

### Abstract

Parkinson's Disease is one of the most common neurodegenerative disorders. Parkinson's Disease is characterized by loss of dopaminergic neurons involved in maintaining motor functions, however; cause of dopaminergic neuron loss is unknown in most of the cases. Several factors are associated with neuronal degeneration in Parkinson's Disease including increase in free radicals, oxidative stress, mitochondrial dysfunction, and inflammatory cytokines. It has been reported that non-motor symptoms such as constipation and leaky gut syndrome precede the onset of the motor symptoms such as bradykinesia, resting tremor, postural instability. Growing evidence indicates that gut microbiota communicates with brain, which is called gut-brain axis maintaining homeostasis of the gastrointestinal and the nervous system with the association of immune system. Gut-brain axis is linked to various tissues and organs including immune cells, autonomic nervous systems, glands, brain, intestine with its microbial composition and communicate each other to preserve homeostasis. Current Parkinson's Disease treatment, based on replacement of dopamine to treat motor symptoms, provides only symptomatic relief and wanes in efficacy. That brings drug resistant-motor symptoms as well as drug side effects, which leads to emergence of alternative therapeutic strategies. Improvement of gut permeability and inflammation by modulating gut microbiota could be a good strategy in improvement of Parkinson's Disease. Considering the studies on the role of gut microbiota in neural development and pathogenesis of neural disorders to date, this review will highlight the role of the gut microbiota on Parkinson's Disease with the recent evidences. Additionally, alternative therapeutic interventions based on gut microbiota modulation to improve Parkinson's Disease pathogenesis will be discussed.

**Keywords:** gut microbiota, Parkinson's Disease, gut-brain axis



**APPLICATION OF HUMAN GEOGRAPHY METHODS FOR COVID-19 RESEARCH****Full prof. Milen Penerliev, PhD***Assoc. prof. Veselin Petkov, PhD**University of Shumen "Konstantin Preslavski"**Bulgaria***Abstract**

This report examines various purely geographical methods for analyzing the COVID-19 pandemic. Social, economic and demographic methods in the service of such research are analyzed. The authors use primarily spatial indicators such as average geographical density, number of cases per sq. km., settlements (for the differentiation of rural-urban morbidity) and others. In socio-economic and sectoral terms, the influence of economic sectors (with specific examples) on the accelerated spread of the infection is analyzed. Theoretically, the main approaches in public geography are clarified, which may be in use for analyzing the pandemic. The topicality of one of the most modern branches of social geography, namely medical geography, is substantiated.



## THE RELATIONSHIP BETWEEN OPERATIONAL LEADERSHIP AND KNOWLEDGE MANAGEMENT

### İŞLEMSEL LİDERLİK VE BİLGİ YÖNETİMİ ARASINDAKİ İLİŞKİ

**Muhammet Gümüş<sup>1\*</sup>, Sibel Orhan<sup>2</sup>, Emine Kızılkaya<sup>3</sup>, Elif MALTAŞ<sup>4</sup>**

*<sup>1</sup>Yüksek Lisans Öğrencisi, Cumhuriyet Üniversitesi, Sağlık Bilimleri Enstitüsü, Sağlık Yönetimi Anabilim Dalı, ,Sivas/Türkiye, ORCID ID:0000-0003-1278-6234,*

*<sup>2</sup>Yüksek Lisans Öğrencisi, Namık Kemal Üniversitesi, Sosyal Bilimler Enstitüsü, Sağlık Yönetimi Anabilim Dalı, ,Tekirdağ/Türkiye, ORCID ID:0000-0002-2892-3865*

*<sup>3</sup>Yüksek Lisans Öğrencisi, Karamanoğlu Mehmet Bey Üniversitesi, Sağlık Bilimleri Enstitüsü, Sağlık Yönetimi Anabilim Dalı, Karaman/Türkiye, ORCID ID: 0000-0002-3678-0905*

*<sup>4</sup>Yüksek Lisans Öğrencisi, Hacı Bayram Veli Üniversitesi, Lisansüstü Eğitim Enstitüsü, Sağlık Yönetimi Bölümü, Ankara/Türkiye, ORCID ID:0000-0002-7895-3181*

#### Abstract

Leaders do not have the same attitude or the same perspective. It seems to be a possible thing that could be exhibited by political, commercial, or user-led leaders. Leadership style is the leader's way of providing, implementing plans and motivating people. Opinions on the operational point of view are primarily aimed at informing and guiding as a motif for themselves. In addition, Knowledge management (KM) is in the process of collecting, developing, sharing and exploiting. It is a multi-disciplinary expression to reach the form by using the information in the best way. Leadership is known to have an effective knowledge management process and steps that are unacceptable and possibly effective for you. In this industrial work, we are interested in your communication with Plastic Transactional Information Management, greeting you in the industry operating in Tuzda, Istanbul. Demographic analyzes were conducted using the Test and Spearman, which use the instrumentation technique to analyze and analyze assumptions.

**Keywords:** Transactional Leadership, Information Management, Plastics Industry

#### Özet

Liderler aynı tutuma veya aynı bakış açısına sahip değildirler. Siyasi, ticari veya diğer alanlarda liderler tarafından sergilenebilecek birçok farklı liderliğin var olduğu görülmektedir. Liderlik stili, liderin yön sağlama, planları uygulama ve insanları motive etme tarzıdır. İşlemsel liderlik tarzına baktığımızda, takipçileri öncelikle kendi çıkarlarına hitap ederek motive etmeyi ve yönlendirmeyi içermektedir. Ayrıca Bilgi yönetimi (KM), organizasyonel bilgiyi yakalama, geliştirme, paylaşma ve etkin bir şekilde kullanma sürecidir. Bilgiyi en iyi şekilde kullanarak organizasyonel hedeflere ulaşmak için çok disiplinli bir yaklaşımı ifade etmektedir. Liderlik stiline, organizasyonun bilgi yönetiminin süreç ve adımlarını karşılama eğilimi ve biçimi üzerinde doğrudan etkili olduğunu bilinmektedir. Bu nedenle bu çalışmada, İstanbul Tuzlada bulunan Plastik Endüstrisinde faaliyet gösteren işletmenin çalışanlarına İşlemsel Liderlik ile Bilgi Yönetimi arasındaki ilişki incelenmiştir. Demografik değişkenleri analiz etmek ve hipotezleri araştırmak için tanımlayıcı istatistik tekniğini kullanıldı ve Pearson Dayanışma Testi ve Spearman kullanılmıştır.

**Anahtar Kelimeler:** İşlemsel Liderlik, Bilgi Yönetimi, Plastik Endüstrisi



**SAĞLIK ÇALIŞANLARINDA İŞ SAĞLIĞI GÜVENLİĞİ ve MOTİVASYON İLİŞKİSİ****THE RELATIONSHIP OF OCCUPATIONAL HEALTH SAFETY AND MOTIVATION IN HEALTHCARE WORKERS****Ali Tilki<sup>2</sup>, Doç. Dr. Rabia SOHBET<sup>1</sup>***(<sup>1-2</sup>)-Gaziantep Üniversitesi, Sağlık Bilimleri Enstitüsü, Hemşirelik Anabilim Dalı, Halk Sağlığı Hemşireliği Programı, Gaziantep, Türkiye**<sup>1</sup>ORCID No: 0000-0002-1835-8479 <sup>1</sup>**<sup>2</sup>ORCID No: 0000-0001-9465-0685 <sup>2</sup>***Özet**

Uluslararası Çalışma Örgütü (ILO) Dünyada her yıl meslek hastalıkları ve kazalar yüzünden 2.2 milyon insanın hayatını kaybettiğini, 270 milyon insanın kaza geçirdiğini ve 160 milyon insanın da iş sebebiyle kısa veya uzun süreli hastalandığını açıklamıştır. Dolayısıyla, meslek hastalıkları ve kazaların önlenmesi, toplum için ekonomik kazanım sağlayacağı gibi, işletmeler için de iyi uygulama örneği teşkil edecektir. En geniş anlamıyla motivasyon; davranışı harekete geçiren fizyolojik/psikolojik eksiklik, ihtiyaç /herhangi bir hedefe yönelmiş dürtü ile başlayan süreçtir.

Bu araştırma, kesitsel tanımlayıcı türde 15.11.2019-16.03.2020 tarihleri arasında Şanlıurfa İli Mehmet Akif İnan Eğitim ve Araştırma Hastanesinde çalışan 2100 çalışandan 1870'ine uygulanmıştır. Verilerin toplanmasında çalışanların tanıtıcı özelliklerini ve iş sağlığı güvenliğine ait bilgi, durum ve tecrübelerini ölçen anket formu, motivasyon düzeyi için Çok Boyutlu İş Motivasyon Ölçeği kullanılmıştır. Verilerin değerlendirilmesinde SPSS 25.0 (Statistical Package for Social Science) paket programı kullanılmıştır. Bağımsız değişkenlerin karşılaştırılmasında  $\chi^2$  testi ve cronbach alfa katsayısı kullanılmıştır.

Araştırmamızda: sağlık çalışanlarının; %45,7'si 30-39 yaş aralığında; %51'i bayan, %76,7'si evli, %40,4'ü hemşire; %36,9'u 6-10 yıl mesleki çalışma yılı aralığında; %47,1'i Lisans ve üstü eğitim düzeyinde olduğu saptanmıştır.

Katılımcıların; %48,6'sı kısmen işe devamsızlık sorunu yaşarken, %39,6'sı az tehlikeli sınıfta; %45,2'si meslek hastalıklarına yakalanma yönünde riskli birimde çalıştığı, %98,7'si İşyeri sağlık güvenlik biriminin kurulduğunu, %79,6'sı İşyerinde risk değerlendirmesi ekibi oluşturulduğu saptanmıştır. %99,6'sı İşyerinde acil durum planları hazırlandığını, %76,6'sı işyerinde yangınla mücadele ve tahliye tatbikatı yapıldığı, %99,5'i İşyerinde çalışan temsilcisi görevlendirildiğini, %99,0'ı İşyerinde iş sağlığı ve güvenliği kurulu oluşturulduğunu, %58,8'i sağlık muayeneleri düzenli yapıldığı saptanmıştır. %39,7'si Çalışma ve Sosyal Güvenlik Bakanlığı bilgilendirme toplantıları ile iş sağlığı güvenliği mevzuatı bilgilerine ulaştığı saptanmıştır. %37,8'i koruyucu ekipmanları sıklıkla kullanmakta, %55,3'ü meslek hastalıklarını bildiği, %42,0'ı koruyucu ekipmanın tek başına meslek hastalıklarından korumaya yeterli, %98,4'ü ramak kala olaylar ile ilgili raporlar hazırlanıyor saptanmıştır.

Araştırmamızda Çok Boyutlu Motivasyon Ölçeğinin cronbach alfa değeri 0,82 hesaplanmıştır.

**Anahtar Kelimeler:** İş Sağlığı, İş Güvenliği, İş Sağlığı Güvenliği, Motivasyon, Sağlık Çalışanları

**Abstract**

The International Labor Organization (ILO) announced that 2.2 million people die every year due to occupational diseases and accidents in the world, 270 million people have accidents and 160 million people get sick for short or long-term due to work. Therefore, the prevention of occupational diseases and accidents will not only provide economic gain for the society, but also set an example of good practice for businesses. Motivation in its broadest sense; It is the process that starts with a



physiological/psychological deficiency, a need/an impulse directed towards any goal that activates the behavior.

This cross-sectional descriptive study was applied to 1870 of 2100 employees working in Şanlıurfa Mehmet Akif İnan Training and Research Hospital between 15.11.2019 and 16.03.2020. A questionnaire measuring the introductory characteristics of the employees and their knowledge, status and experience of occupational health and safety was used to collect the data, and the Multidimensional Job Motivation Scale was used for the motivation level. SPSS 25.0 (Statistical Package for Social Science) package program was used to evaluate the data. The  $\chi^2$  test and the Cronbach's alpha coefficient were used to compare the independent variables.

In our research: health workers; 45.7% of them are between the ages of 30-39; 51% are female, 76.7% are married, 40.4% are nurses; 36.9% of them are in the range of 6-10 years of professional work; It was determined that 47.1% of them were at the undergraduate and higher education level.

Participants; While 48.6% of them had the problem of partly absenteeism, 39.6% were in the less dangerous class; It has been determined that 45.2% of them work in the risky unit to catch occupational diseases, 98.7% of them work in the workplace health and safety unit, 79.6% of them a risk assessment team is formed in the workplace. 99.6% stated that emergency plans were prepared at the workplace, 76.6% fire-fighting and evacuation drills were carried out at the workplace, 99.5% employee representatives were appointed at the workplace, 99.0% occupational health and safety committees were established at the workplace. It was determined that 58.8% of them had regular health examinations. It was determined that 39.7% of them had access to occupational health and safety legislation information through the Ministry of Labor and Social Security information meetings. It was determined that 37.8% use protective equipment frequently, 55.3% know occupational diseases, 42.0% use protective equipment alone to protect against occupational diseases, 98.4% prepare reports about near misses. .

In our study, the cronbach alpha value of the Multidimensional Motivation Scale was calculated as 0.82.

**Keywords:** Occupational Health, Occupational Safety, Occupational Health And Safety, Motivation, Health Workers



## REDUCING THE TOXIC EFFECT OF THE ISOTHIAZOLINONE COMPOUND USING VERMICOMPOST

Duygu Aydın<sup>1\*</sup>, Dr. Burcu Yuksel<sup>2\*</sup>

<sup>\*1</sup> Kocaeli University, Institute of Natural and Applied Sciences, Biology, Kocaeli, Turkey

<sup>\*2</sup> Kocaeli University, Vocational School of Kocaeli Health Sciences, Medical Lab. Tech., Kocaeli, Turkey

ORCID ID: Duygu Aydın: <https://orcid.org/0000-0003-4909-3562>

Burcu Yuksel: <https://orcid.org/0000-0001-8691-6447>

### Abstract

Methylisothiazolinone (MIT), which has an antibacterial and antifungal effect, is used in personal care products, detergents, food packages, paper production, wall paint, among others, in different fields. MIT can be mixed with sea and soil by rinse or rainwater; therefore, it is constantly present in nature as a pollutant. Vermicompost is an important bio-ecological fertilizer that provides plant growth and development and increases genes' expression in the plant defence mechanism. In our study, firstly, the EC50 value was determined after exposing *Pisum sativum* spp. Seeds to MIT, and then the mitotic index at the end of 48 hours for EC50/2, EC50, EC50x2 MIT concentrations (0.4; 0.8; 1.6; g/L) was identified. As a next step, nuclear and chromosomal abnormalities were analyzed. At the end of 48 to 72 hours, DNA damage was detected by the comet method, which allows the measurement of DNA damage levels. In the second stage of our study, mitotic index, nuclear and chromosome abnormalities, and DNA damage levels were determined by applying vermicompost tea (VCT) together with the EC values of the determined MIT. At the end of 48 hours, while the mitotic index decreased due to increasing MIT concentration, pycnotic nuclei, nuclear granulation, and ghost cells were observed at EC50x2 (1.6 g/L) MIT concentration. While the mitotic index improved when MIT was applied together with VCT, it was determined that the pycnotic nuclei and nuclei granulation rates decreased significantly at the highest MIT+SV concentrations. Statistical data are significantly different at the  $p < .05$  level when compared with the control group. In Comet analysis, DNA damage increases in cells at the end of both 48 and 72 hours due to only MIT application. DNA damage was detected at the end of 48 and 72 hours in applications with MIT+VCT. No statistically significant difference was detected between MIT and MIT+VCT applications. As a result of VCT applications, we think that the substances in vermicompost, it supports the plant defence mechanism and prevents or delays the cell from entering apoptotic death, and also reduces the toxic effect of vermicompost.

**Key Words:** Comet assay, Methylisothiazolinone, Mitotic index, *Pisum sativum*, Vermicompost tea.



## EFFECTS OF TOXIC EMOTIONAL EXPERIENCES AND PERCEIVED ORGANIZATIONAL SUPPORT ON POSITIVE WORK BEHAVIORS, WITHDRAWAL BEHAVIORS, AND ANTAGONISTIC WORK BEHAVIORS<sup>1</sup>

Orou Issiaka SOUNON<sup>1\*</sup>, Hande ÖZGEN<sup>2\*\*</sup>

<sup>1</sup> Ankara Yıldırım Beyazıt University, Social Science Institute, Department of Management, Ankara, Turkey,

ORCID ID: 0000-0001-9609-0570

<sup>2</sup> Ankara Yıldırım Beyazıt University, Business School, Department of Management, Ankara, Turkey,

ORCID ID: 0000-0002-6939-6723

### Abstract

This study aimed to determine the effects of positive and negative affectivity, toxic emotional experiences sub-dimensions (psychologically recurring, disconnecting, draining) and perceived organizational support on on-the-job behaviors (positive work behaviors, psychological and physical withdrawal behaviors, and antagonistic work behaviors). In addition, it was tested whether toxic emotional experiences differ according to demographical factors such as gender and age. A quantitative research was carried out targeting people of public and private organizations in Benin Republic. Watson, Clark, and Tellegen's (1988) The PANAs Scale, Kiefer and Barclay's (2012) Toxic Emotional Experiences Scale, Eisenberger, Huntington, Hutchinson, and Sowa's (1986) Perceived Organizational Support Scale, and Lehman and Simpson's (1992) On-the-Job Behaviors Scale were used for gathering data. A total of 306 employees (132 females, 174 males) participated in the survey. According to results female employees experience more toxic emotions. The results also showed that there was a low level of significant correlation between toxic emotional experience and perceived organizational support, psychological withdrawal behavior, and antagonistic work behavior. The hierarchical regression results revealed that only psychologically recurring sub-dimension predicts psychological withdrawal behaviors. In addition to this, positive affect, psychologically recurring sub-dimension together with diminished perceived organizational support predict positive work behaviors, and physical withdrawal behaviors. The remarkable finding is that employees who experience toxic emotions and perceive less support from their organization may exhibit antagonistic work behaviors.

**Keywords:** positive affect, negative affect, toxic emotional experiences, perceived organizational support, positive work behaviors, withdrawal behaviors, antagonistic work behaviors, Benin Republic

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<sup>1</sup> This study is derived from the first author's master's thesis conducted under the supervision of the second author.



## **SPIRITUALITY AND ITS RELEVANCE TO SAINT JOHN APOSTOLIC CHURCH: MAPHOPHA CONGREGATION**

**Morakeng Edward Kenneth Lebaka**

University of Zululand, Faculty of Arts, Department of Creative Arts, KwaDlangezwa, South Africa

### **Abstract**

In Saint John Apostolic Church – Maphopha Congregation, in Greater Sekhukhune District Municipality, Limpopo province in South Africa, religion is used as a tool to achieve Congregants' spiritual wellness. Spirituality has much to do with personal experience. Congregants in this church denomination, have a belief system which is based on the spiritual world and the only way to communicate to the spirits is through scripture reading, drumming, singing and dancing. The study seeks to establish the vital role played by drumming, singing and dancing in influencing some of the congregants to disclose what they foresee or spiritually experience during liturgical church service. The focus of this research is on the positive influence on health and wellbeing, but also examines the relationship between religion and spirituality. The study used a naturalistic approach and the methods of data collection were video recordings of liturgical church services, interviews and observations. The main questions the study addressed were: 1) what are the religious, social and spiritual role played by drumming, singing and dancing in Saint John Apostolic liturgical church service? and 2) how is scripture reading integrated into drumming, singing and dancing during liturgical church service? The results of this study have shown that to be religious does not necessarily mean that one should be spiritual, and vice versa; but there are some exceptional cases where both apply. It was concluded that the integration of drumming, singing and dancing is the most important medium of communication in the religious and spiritual contexts of the Saint John Apostolic faith tradition.

**Keywords:** Spirituality, Saint John Apostolic Church, South Africa.



## SPACE-TIME AS AN ENTRANCE TO DESIGN DEVELOPMENT EXERCISES FOR ART TALENTED

Amal AL mousa<sup>1\*</sup>, Massouda Qurban<sup>2</sup>

*<sup>1\*</sup> Prince Sattam Unveracity, Education College, Home Economy Department, AL Kharj, Saudi Arabia*

*<sup>2</sup>king Saud Unveracity, Education College, Art Education Department, AL Riyadh, Saudi Arabia*

### Abstract

The aim of the research is to identify the nature of space-time concept in the arts, to explore the possibilities of the concept of space-time in artistic design, to analyze some of the artistic designs of the most famous space-time artists, and to create innovative designs based on the concept of space-time to train talented people on the basics of design and artistic dimensions. Where the research answers to the following key question and its branches, which is the role of the concept of space-time as an entrance to design enrichment exercises for the technically gifted. The research relied on the descriptive analytical method, for an intentional sample of the study population, which are examples of the work of space-time artists, to describe and analyze the aesthetic and plastic relations in the design elements and elements, and to identify the structural foundations of designs based on the concept of space-time. The experimental method was also used to reach conclusions that contribute in a practical way to the production of designs to train the talented technically on the foundations and structural elements of design. The main findings were: Stand on the variables of time and space in the design. Define aesthetic and plastic values in the work of space-time artists of movement, symbol, significance, and function. The results also showed what the structural foundations of spacetime designs are reduction, condensation, dimensions, depth and repetition. The research resulted in the production of designs based on aesthetic and plastic values and the structural foundations of the concept of space-time in design, which aims to train talented people on the design and initial planning of all the temporal and spatial dimensions of various fields of artistic works.

**Keywords:** space-time, design, art talented.



**LOCAL DETERMINATION OF BROKEN POINT COORDINATES OF BUILDING PLOTS IN SEPARATE ZONING ISLANDS WITH THE COLLINS METHOD**

AYRIK NİZAMLI İMAR ADALARINDA BİNA PARSELLERİ KIRIK NOKTA  
KOORDİNATLARININ YERSEL ŞEKİLDE COLLİNS METODU İLE TAYİNİ

**<sup>1</sup>Selim TAŞKAYA**

\*<sup>1</sup>Artvin Vocational School Department of Architecture and Urban Planning, Artvin, Turkey.

\*Orcid No: <https://orcid.org/0000-0002-4290-3684>

**Abstract**

Zoning can be defined as the optimization of a piece of land for people to live on. While determining the zoning areas, the area to be developed as a cluster is determined and the zoning boundaries are passed. The process of making the pieces of land prosperous within the boundaries of zoning becomes possible with the creation of zoning islands and roads. On the other hand, there are various types of zoning islands according to their intended use. While some of these islands are written on the zoning sheets as legends to meet the housing need, some of them are commercial, residential + commercial, central business areas, religious facility area, police station, local playgrounds, green areas, etc. way it occurs. When the details of residential areas are entered, the formation of buildings, which are living spaces, is created according to the building regulations. Basically, three types of separate, block and adjacent building regulations exist according to the Zoning Law in Turkey. The most preferred building order in the lands opened for new building permits is the split order. The building parcels that are formed after the zoning diameters are given in the discrete areas are formed in the middle. That is, building parcels are a subset of zoning parcels. As a result of these pulls, the number of convex edges of the parcel, one less than the building fracture points are formed. In addition to technological tools such as GPS, terrestrial point determination methods are available in determining the spatial location, that is, the coordinates of the fracture points. One of them is the collins method, which is one of the back estimation methods. The Collins method is the process of determining the coordinates of the unknown point of the building parcel, which is formed by the drawing distances of a zoning parcel whose coordinates at three fixed points are known, by using the circle passing through the point where the angle and distance lengths between at least two known fixed points and the unknown points are desired. In our study, it was tried to find the traditionally local coordinates of the broken points of the building parcels that may occur according to the floor height and floor area settlement coefficients with the collins method from the zoning parcels in the form of discrete layout.

**Keywords:** Seperated order, Building parcel, Collins Method

**Özet**

İmar, bir arazi parçasının insanların üzerinde yaşayabileceği en iyi haline getirilmesi olarak tanımlanabilir. İmar sahaları belirlenirken öncelikle bir küme gibi imara alınacak saha belirlenerek imar sınırları geçirilir. İmar sınırları içerisinde arazi parçalarının bayındır hale getirilmesi işlemi imar adalarının, yolların oluşturulması ile mümkün hale gelir. İmar adalarının ise kendi içerisinde kullanım amacına göre çeşitleri mevcuttur. Bu adaların bir kısmı konut ihtiyacını gidermek üzere lejant olarak imar paftalarına işlenirken, bir kısmı ticari, konut + ticari, merkezi iş alanları, dini tesis alanı, karakol, mahalli oyun alanları, yeşil alanlar vb. şekilde oluşur. Konut alanları detayına girildiğinde ise yaşam alanları olan binaların oluşumu yapı nizamlarına göre meydana getirilir. Temelde üç tip ayrık, blok ve bitişik yapı nizamları, Türkiye'deki İmar Kanununa göre mevcuttur. Yeni yapı iznine açılan



arazilerde en çok tercih edilen yapı nizamı ayrıık nizamdır. Ayrıık nizamlı alanlarda özellikle imar çapları verildikten sonra oluşan bina parselleri ortada oluşur. Yani bina parselleri imar parsellerinin alt kümesidir. Bu çekmeler sonucunda parselin konveks şeklinde kaç kenar varsa bir eksiği kadar bina kırık noktaları oluşur. Oluşan kırık noktalarının mekânsal yerinin yani koordinatlarının belirlenmesinde gps gibi teknolojik araçlarının yanı sıra yersel nokta belirleme metotları mevcuttur. Bunlardan biriside geriden kestirme metotlarından olan collins metodudur. Collins metodu, sabit üç noktasındaki koordinatları bilinen bir imar parselinin çekme mesafeleri ile oluşan bina parselinin bilinmeyen noktasının koordinatlarının, bilinen en az iki sabit nokta ile bilinmeyen noktalar arası açı ve mesafe uzunluklarının bulunması istenilen noktadan geçen daireden yararlanılarak belirleme işlemidir. Çalışmamızda ayrıık nizam şeklindeki imar parsellerden collins metodu ile kat yüksekliği ve taban alanı oturum katsayılarına göre oluşabilecek bina parsellerinin kırık noktalarının geleneksel şekilde yersel olarak koordinatlarının bulunmasına çalışıldı.

**Anahtar Kelimeler:** Ayrıık nizam, Bina parseli, Collins Metodu



**LOCALITY IN FURNITURE FEATURES: EASTERN BLACK SEA REGION****MOBİLYA ÖZELLİKLERİ BAKIMINDAN YÖRESELLİK: DOĞU KARADENİZ BÖLGESİ****Şebnem ERTAŞ BEŞİR<sup>1\*</sup>, İrem BEKAR<sup>2</sup>**<sup>1</sup> *Akdeniz University, Faculty of Architecture, Department of Interior Architecture, Antalya, Turkey.*<sup>2</sup> *Karadeniz Technical University, Faculty of Architecture, Department of Interior Architecture, Trabzon, Turkey.***Abstract**

The concept of locality, which has found a wide place in the works produced in the field of sustainable architecture, has been a source used in providing solutions to the problems experienced despite changing and developing conditions. The local characteristics that form the cultural bridges between the generations constitute the harmonious pattern of the solutions developed in line with the centuries-old life experiences of humanity in the environment of the common mind, reflecting the local materials and techniques, local production traditions and local identity. Among the local features, which are considered in a wide framework, local furniture is the elements that need to be protected and sustainability must be ensured, together with the cultural, semantic and technical characteristics of the region. In the study, the concept of locality is discussed in terms of local furniture, which forms an important part of the local environment. Furniture that enabling certain actions to meet in the building differs from region to region, causing the formation of unique furniture characters in each region. Furniture mostly takes shape according to the life in the region, the place where they are used or the materials used independently of the place or the place. In the study, the Eastern Black Sea Region was considered due to its rich cultural diversity and the concept of locality in furniture was examined according to the fixed-moving nature of the furniture, its place in the organization of the space and its material. Thus, it is aimed to create an inventory for the sustainability of local identity by providing an intergenerational cultural flow of local furniture.

**Keywords:** Eastern Black Sea, Furniture, Locality, Local Furniture

**Özet**

Sürdürülebilir mimarlık alanında üretilen çalışmalarda kendine geniş bir yer bulan yöresellik kavramı, değişen ve gelişen koşullara karşın yaşanan problemlerde çözümün sağlanmasında başvurulan bir kaynak olmuştur. Nesiller arasındaki kültür bağlantılarının oluşmasını sağlayan yöresel özellikler, yöreye has malzeme ve yapım gelenekleriyle yöresel kimliğini yansıtan, insanoğlunun yüzyıllar boyunca oluşmuş ortak birikimleri doğrultusunda ortaya koydukları çözümlerin uyumlu birlikteliğinin bir sonucudur. Geniş bir çerçevede ele alınan yöresel özellikler içerisinde yöresel mobilyalar da bölgeye dair taşıdığı kültürel, anlamsal ve teknik özellikleri ile birlikte korunması ve sürdürülebilirliğinin sağlanması gereken unsurlardır. Çalışmada yöresellik kavramı yöresel çevrenin önemli bir parçasını oluşturan yöresel mobilyalar ele alınmıştır. Yapı içinde belirli eylemleri karşılayabilmesine olanak sağlayan mobilyalar yöreden yöreye farklılık göstererek her bölgede özgün mobilya karakterlerinin oluşmasına neden olmaktadır. Mobilyalar çoğunlukla mekanı oluşturan ya da mekandan bağımsız bir biçimde yöredeki yaşantıya, kullanıldıkları mekana veya kullanılan malzemeye göre şekil alır. Çalışmada zengin kültürel çeşitliliğe sahip olması nedeniyle Doğu Karadeniz Bölgesi ele alınmış ve mobilyalarda yöresellik kavramı mobilyanın sabit ya da hareketli oluşu, mekan örgütlenmesindeki yeri ve malzemesine göre incelenmiştir. Böylece yöresel mobilyaların kuşaklar arası bir kültür akışı sağlanarak yöresel kimliğin sürdürülebilirliği adına bir envanter oluşturmak hedeflenmektedir.

**Anahtar kelimeler:** Doğu Karadeniz, Mobilya, Yöresellik, Yöresel Mobilya



## EĞİL MAĞARALARI VE KALESİ

## EGIL CAVES AND CASTLE

**Çetin İlhan AKBULUT<sup>1</sup>, İlker İNAN<sup>2</sup>, Nazlı Ece GEYİK<sup>3</sup>**<sup>1</sup> Dr.Öğr.Üyesi, Doğuş Üniversitesi, Adalet Programı, İstanbul, Türkiye

ORCID ID: 0000-00027197-3876, 05322061040

<sup>2</sup> Öğr.Gör., İstanbul Gelişim Üniversitesi, Mekatronik Programı, İstanbul, Türkiye

ORCID ID: 0000-0001-6151-6690

<sup>3</sup> Öğr.Gör., İzmir Kavram Meslek Yüksekokulu, İç Mekan Tasarımı Programı,İzmir, Türkiye

ORCID ID: 0000-0003- 4142-1605

**Özet**

İnsanların yeryüzünde görünmesi,jeoloji devirlerinin sonuncusu olan Anthropozoik çağına rastlamaktadır. Ancak bu zamanda yurdumuz topraklarında insanoğlunun yaşadığı şüphelidir. Daha sonraları, Akdeniz ülkelerindeki uzun başlı tipteki orta boylu insanların ilk defa olarak Suriye üzerinden Dicle – Fırat boylarını takip ederek Anadolu içlerine yayılmaya başladıkları sanılmaktadır. “Akdeniz Kavmi”nden sayılan bu insanların M.Ö.25bin’den 10 bin yıllarına kadarki devre zarfında Eskitaş Çağı’nı yaşadıkları zannedilmektedir.

Bu çağın başlarında iklim çok sıcak olduğundan yabani ve çıplak yaşayan insanlar,orman yanlarında,göl kenarlarında yerleşmişler; bol olan meyvelerle,kaba taşlar ve sopalarla avladıkları hayvanların etleriyle karınlarını doyurmuşlardır. Sonraları havaların soğuması, iklimin sertleşmesi üzerine kendilerini hem doğal şartlardan ve yırtıcı hayvanlardan korumak için tabii mağaralara sığınmak zorunda kalmışlar ve taşları yontarak daha işe yarar silahlar yapmaktan da geri durmamışlardır. Böylece insanlık tarihinde “Mağara Çağı” başlamıştır.

Dünyanın en eski ve en köklü uygarlıklarının Mezopotamya ve Anadolu’da ortaya çıktığı görülür. Bu iki uygarlık merkezinin birleştiği noktadaki Diyarbakır da bundan etkilenmiştir. M.Ö. 8 bin’lerde başlayan bu kültürel etkileşim süreci, günümüze kadar sürmüş ve oldukça zengin bir kültür mozağının doğmasına neden olmuştur.

İnceleme konumuz olan Eğil Mağaraları ve Kalesi, Diyarbakır’ın kuzeyinde, Eğil İlçesinde bulunmaktadır. Eğil ilçesine Diyarbakır – Elazığ yolunun 32. Kilometresinde bulunan Karahan mevkiinden sağa sapılmak suretiyle gidilir. Uzunluğu 22 kilometreyi bulan yolun sonunda Eğil ilçesine varılır. İlçenin girişinde dört kapılı, kare şeklinde,üstü tamamen harabolmuş bir kümbet görülür. Bu kümbetin taşları yer yer yıkılmıştır. İlçeye bakan kapısının üzerinde bulunduğu anlaşılan ancak yere düşmüş durumda olan kara bir taşın üzerinde iki satırlık bir yazı vardır. Yazının birinci satırında ;“Savuşup çıktı dirahiti ömre vasil”. İkinci satırında ise ; “Nisan...ElmerhumElmağfur” kelimeleri okunabilmektedir. Bu yazı ve kümbet, Nisanoğulları tarihi için önemli bir belgedir. Zira Nisanoğulları’nın Diyarbakır’daki kitabeleri hep Arapça yazıldığı halde bu kitabenin Türkçe yazılması ayrı bir önem taşır. Eğillilerin bu lisanla eskidenberi alakalarının olduğunu göstermektedir.Türbenin Nisanoğulları’ndan Ebu Nasır veya Esaduddin Beylere ait olabileceği sanılmaktadır.

**Anahtar Kelimeler :**Diyarbakır,Eğil,Mağaralar,Kale



## Abstract

The first appearance of human beings falls anthropocentric age (fourthage) which is the last of geological terms. However, that people have lived in our country in this period is not clear yet. It is thought that people of medium height with tall head (dolikosephale) from the Mediterranean countries have spread, for the first time, into the interior of Anatolia by passing through Syria and following the rivers, Tigris and Euphrates. Those who are considered from the Mediterranean tribes, are supposed to have lived between 25.000 B.C. and 10.000 B.C., the period of Old Stone Age (Paleolit). These people leading a wild life and wearing no cloths, since at the beginning of this age was too hot, settled around forests and lakes and ate abundant fruits and meat they hunted with rough Stones and cudgels. But later, when the weather became cold and climate harder, they took shelters in natural caves in order to protect themselves from wild animals and made more practical weapons by dressing Stones. Meanwhile they preferred to use flint. This period is called palaeolithic age (Mezolit) or cave-age. The greatest civilizations of the World have occurred in Mesopotamia and Anatolia. There is not a certain border separating from each other, where ancient cultures densen. South-east Anatolia may be a transit area, including Diyarbakır and its environs. The developed civilization established in Anatolia and Mesopotamia have caused many communities to intend to settle or occupy these lands. The new comers, on the one hand, have been influenced by local inhabitants' culture, on the other hand they have contributed the peculiarities to them. Hence, the mix of the cultures, owing to each of the new communities, has got much richer and covered hundreds of years. Duration of mutual exposure dating from 8000 has lasted up to the present day, resulting in highly rich cultural mosaic and in this wide heritage the cultural and religious remains of communities which have been effective for centuries have stayed lively nowadays. Eğil caves and castle are in the commune of Eğil. On the North of Diyarbakır. Any person who wish to visit there go from Karahan which is on the point of 32 km. between Diyarbakır and Elazığ, by turning to the right. If you take the dirt road, 22 Km, you reach the centre of Eğil. There is a square building, "dome", with 4 door and a completely ruined roof at the entrance of the commune. Some Stones have collapsed. The black one lying on the ground is supposed to have stood on the door facing to the commune. It has a worn-out script. Both this script and the dome are very important and remains for the past of Nisanoğulları. Because, while Nisanoğulları's inscriptions in Diyarbakır were written in Arabic script, these were in Turkish script. It proves that Eğil and its inhabitants, being the same family, have been interested in this language for a long time. It is thought that the mausoleum belongs to Ebu Nasır or Esaduddin, from the family of Nisanoğulları.

**Keywords:** Diyarbakır, Eğil, Caves, Castle



# İÇ MEKÂN TASARIMINDA SÜRDÜRÜLEBİLİRLİĞİN WABI SABI ÜZERİNDEN ÖRNEKLERLE İNCELENMESİ

## EXAMINATION OF SUSTAINABILITY IN INTERIOR DESIGN WITH EXAMPLES THROUGH WABI SABI

Gülşah KARYAĞDI<sup>1\*</sup>

<sup>1</sup>Beykent University, Faculty of Engineering and Architecture, Interior Architecture, Istanbul,  
Turkey.

ORCID: 0000-0002-5377-1074

### Özet

Modern dünyanın en büyük sorunlarından olan çevre kirliliği, küresel ısınma, hızlı nüfus artışı, sanayileşme, ekolojik sistemin bozulması, salgın hastalıklar ve aşırı tüketim yakın gelecekte insanlığın çevresel, ekonomik ve sosyal tehditlerle karşılaşabileceğini göstermektedir. Tüketim alışkanlıklarının doğal kaynakların kendini yenileme sürecinin çok üstünde olması ve mevcut kaynakların ihtiyaç fazlası olarak tüketilmesi her alanda “*Sürdürülebilirlik*” kavramının benimsenmesinde önem kazanmaktadır. Bilimsel ve teknolojik gelişmelerle beraber artan yaşam kalitesinin, tüketici ihtiyaçlarının değişmesine ve yeni bir tüketim kültürünün ortaya çıkmasına sebep olduğundan bahsedilmektedir. Değişen tüketici ihtiyaçlarının yaşamsal gereksinimleri karşılamamanın ötesinde ayrıcalık ve itibar göstergesine dönüştürüldüğünden söz edilebilmektedir. Tüketim şekliyle farklılaşma ihtiyacının giderildiği düşüncesi, satın alma iradesinin insan hakimiyetinden çıktığı ve manipüle edildiği günümüzde, ihtiyaç fazlası bir çok ürünün yaşam alanlarında istiflenerek işlevlerini yitirmelerine neden olduğu gözlemlenmektedir. Doğal kaynakların kendini yenileyebilmesine olanak sağlayabilecek tüketim anlayışının yaygınlaşması, var olan kaynakların korunması, temel ihtiyaçların ön plana çıkarılması; dengeli, barışçıl, sade, kendini olduğu gibi kabul eden Japon dünya görüşü ve yaşam şekli olan “*Wabi-Sabi*” ile bütünleşebilmektedir. Modern dünyanın yarattığı estetik kavramı, kusursuz arama eğilimi, her şeyin bir düzen içinde olması gerektiği görüşleri, yaşam alanlarında kullanıcılar üzerinde baskı oluşturmaktadır. Kullanıcısı ile bütünleşen iç mekânlar, kullanıcıya konforla beraber kişisel zevk ve tercihlerini yansıtmaya imkânı da sağlamalıdır. Mükemmel estetik anlayışını sorgulayan ve bireyin kendi farkındalığının ön plana çıkmasına önem veren “*Wabi-Sabi*” ise iç mekânlara özgünlük getirmektedir. Çalışmada iç mekânlarda kullanılacak donatıların ve malzemelerin tüketim trendlerinden bağımsız, var olanı korumaya yönelik, sürdürülebilir olmasına dikkat çekmek amaçlanmıştır. Çalışma kapsamında *Wabi-Sabi*’nin iç mekân tasarımı ile bütünleşmesinin mobilya, malzeme ve iç mekân uygulama örnekleri üzerinden incelenmesi planlanmaktadır. Araştırma içeriğinde nitel analiz ve bilgi toplama yöntemi kullanılacaktır. Çalışma sonunda mobilya ve malzeme seçimlerinin yanı sıra mevcutun da korunmasıyla beraber popüler eğilimlerden uzak, temel ihtiyaçlara yönelik özgün yaşam alanlarının elde edilebileceği ön görülmektedir.

**Anahtar Kelimeler:** İç Mekân, Tasarım, Wabi Sabi, Mobilya, Sürdürülebilirlik

### Abstract

Environmental pollution, global warming, rapid population growth, industrialization, deterioration of the ecological system, epidemic diseases and excessive consumption, which are among the biggest problems of the modern world, show that humanity may face environmental, economic and social threats in the near future. The fact that the consumption habits are far above the self-renewal process



of natural resources and that the existing resources are consumed as surpluses gain importance in adopting the concept of "sustainability" in every field. It is mentioned that the increasing quality of life with scientific and technological developments has led to changes in consumer needs and the emergence of a new consumption culture. It can be said that changing consumer needs are transformed into an indicator of privilege and prestige beyond meeting vital needs. It is observed that today, when the thought that the need for differentiation is met by the way of consumption is removed from human domination and the will to buy is manipulated, many surplus products are stacked in living spaces and cause them to lose their functions. Expanding the understanding of consumption that will allow natural resources to renew themselves, protecting existing resources, bringing basic needs to the fore; It can integrate with Wabi Sabi, a balanced, peaceful, simple, self-accepting Japanese worldview and lifestyle. The concept of aesthetics created by the modern world, the tendency to seek perfection, the views that everything should be in order, put pressure on users in their living spaces. Interior spaces that integrate with the user should provide the user with comfort as well as the opportunity to reflect their personal tastes and preferences. "Wabi-Sabi", questioning the perfect aesthetic understanding and giving importance to the individual's own awareness, brings originality to interiors. In the study, it is aimed to draw attention to the fact that the equipment and materials to be used in interior spaces are independent from consumption trends, aiming to protect the existing and sustainable. Within the scope of the study, it is planned to examine the integration of Wabi-Sabi with interior design through furniture, materials and interior application examples. Qualitative analysis and information collection method will be used in the research content. At the end of the study, it is foreseen that original living spaces for basic needs, away from popular trends, can be obtained with the protection of the existing furniture and material selections.

**Keywords:** Interior, Design, Wabi Sabi, Furniture, Sustainability



## AN ANATOMICAL AND CHEMICAL COMPARISON STUDY OF *EPIPREMNUM AUREUM* CULTIVATED IN SOIL AND SOILLESS

<sup>1</sup>Muazaz Azeez AL-Hadeethi, <sup>1</sup>Basma M. Al-Obaidi

<sup>1</sup>Biology Dep., Education College for Pure Sciences - Ibn Al- Haitham, Baghdad University, Iraq.

### Abstract

The present study took up the different ways to cultivate the species *Epipremnum aureum* by two habitat water and soil and comber the anatomical features of the root, stem, and leaf. The results showed amazing significant anatomical features to the ecosystem.

The root and stem anatomy showing decrease in all characters that studied but the leaf anatomy showing increase of palisade, spongy tissue thickness, midrib thickness, number of vessels in the xylem also the long and width of stomata of the soilless plants than soil ones.

The upper epidermis empty from the stomata for the two treatment and the stoma diffuse in the lower epidermis, the type of it paracytic type.

Also the total of flavonoids in the plant that were growth in soil reached 140.489 ml/kg and in the water 140.385 ml/kg

**Keywords:** anatomy, chemical, *Epipremnum aureum*, water, soil



## THE EFFECT OF GREEN HARVEST ON THE WINE QUALITY

**Nino Chkhartishvili**

*Professor, Georgian Technical University, Viticulture and winemaking scientific-research center*

**Londa Mamasakhlisashvili**

*Doctor, Scientific-Research Center of Agriculture*

**Jaba Abaishvili**

*master student, Master program: "Viticulture and winemaking" of Georgian Technical University*

### Abstract

The phrase "wine quality begins with a vineyard" attracted great attention after a survey conducted in Bordeaux, where the most respondents named the vineyard as a beginning of the quality of future wine.

Crop load control in viticulture is a very important tool for regulating the quality and yield of grapes, which, in turn, is one of the most important factors for the production of quality wines. To control yields and quality today, viticulture often uses a green harvest, the purpose of which is to remove some immature bunches that regulate the best accumulation of sugars in the berry, the accumulation of aromatic substances and many other ones.

The purpose of our work was to determine the influence of the green harvest on the quality of wines made from the Kakhetian (Saperavi and Rkatziteli) and Kartli (Danahari, Chinese) varieties included in the gene pool of Georgian grapes, based on the Scientific-Research Center of Agricultural.

The main parameters and the technological additives in the form of common sugars, total titrated acidity, pH grape juice, anthocyanins and common polyphenols were studied in grapes, which influenced the quality of wine produced from the same varieties.

Statistical analysis of the results showed that the green harvest had a significant and beneficial effect on the quality of each grape variety, as well as the final product - wine.

**Key words:** Vitis Vinifera, Georgian Grape Gene pool, Saperavi, Qvevri.



## MLETA'S GORGE AS A REPRESENTATIVE FACE OF THE MUDFLOW WATERCOURSES OF GEORGIA

**Maya Kupravishvili**

Doctor of Technical Sciences, Associate Professor

Georgian Technical University, Faculty of Agricultural Sciences and Bio-systems Engineering

Department of Agro-engineering, Tbilisi, Georgia

<https://orcid.org/0000-0003-4761-3640>

### **Abstract**

Protecting the natural environment, in particular land, from dangerous geological, meteorological and other negative natural phenomena is an urgent task of modern society.

The combined action of the geological, climatic, meteorological and diverse landscape features of the mountainous terrain of Georgia often creates favorable conditions for the occurrence of mudflow events in certain regions of the territory, which in turn lead to environmental degradation and shortening of the country's land cover.

Distribution of riverbeds along the watershed is a complex and multi-factor process, which largely depends on the mud-flow type. In this regard, a field experiment was carried out on a Mleta Gorge.

Experimental and theoretical studies have obtained correlation between the angles of internal friction of the particles of the same diameter but different shape - the more meaning of its correlation, the harder the particle moves on the water channel bottom. This correlation acquires the maximum value in the case of sand-gravel fraction, which led to its anomalous action. It has been ascertained, that the washing and sedimentation process of the water channel of the debris flow largely depends on the shape of its constituting particles.

**Keywords:** correlation of internal friction angles of the particles; differential curves of granulometric composition; proluvium;



**FABRICATION OF BIOENZYMES BY BACTERIA IN PAPER AND PULP INDUSTRY****Ms. Sonal Chaudhary<sup>1</sup>, Dr. Shalini Porwal<sup>2</sup>***1,2 Amity Institute of Microbial Technology, Amity University Uttar Pradesh, Noida, Uttar Pradesh, 201313***Abstract**

There are many possibilities for the implementation of microbial enzymes in processing, like biopulping, bioblasting, decoupling, pitch extraction, document coloring, and effluent bioremediation in pulp and paper manufacturing processes. While many antibiotics apps in the pulp and fabric sector are still in the study and growth phases, eco-friendly bioplasty of tough and smooth timber paste is presently the most significant implementation. In most cases, xylanases, laccases and rare mannanases are used in these enzymes and provide the potential alternative to conventional chlorine and chlorine pollution. Many sectors around the globe measure these biocatalysts' capacity by regular large-scale pulp delignement studies. On the other side, several paper mills have also been commonly adjusted for quality-enrichment pitch control by lipases (and lately by laccases). The enhanced pulp drainage is regularly performed in several factories with enzymes. However, before enzymes are fully implemented in the paper industry, several crucial difficulties exist in laccases, particularly in terms of their small redox potential and their dependence on cost-intensive mediators.

**Keywords:** “Bio-bleaching; Bioremediation; De-inking; Delignification; Laccase; Paper; Pulp; Xylanase”



**UNDER GLOBAL SUSTAINABILITY MICROALGAE *SPIROGYRA* SP.  
DETERMINATION OF FATTY ACID COMPOSITION OF STRAINS AND  
ESTABLISHING SCALABILITY IN APPLICATIONS**

**İlkay AÇIKGÖZ ERKAYA<sup>1</sup>, Dilek YALÇIN<sup>2\*</sup>**

<sup>1</sup>Kırşehir Ahi Evran University, Faculty of Engineering and Architecture, Department of  
Environmental Engineering Institute, Kırşehir, Turkey.

<sup>2\*</sup> Gazi University, Gazi Education Faculty, Biology Department, Ankara, Turkey.

0000 0003 1730 4951

0000 0003 2127 8186

**Abstract**

The developments in technology and industry, the environmental problems that have arisen as a result of the rapid increase in the world population have revealed the fact that natural resources are limited. The development of an economy that maintains the balance between development and nature and uses nature without consuming it, and the development of the understanding of creating new resources has increased awareness of sustainability. In this context, two strains of *Spirogyra* grown naturally in freshwater environments were isolated and researches were carried out for the usability of this genus in industrial applications in order to emphasize sustainability in the use of scarce resources in the world. *Spirogyra* strains were inoculated in 500 mL of BG-11 medium and incubated at 23±2°C, 16L:8D period, and pH 6.8-7. The determination of the growth rates of the cultures was carried out by measuring the wet weights until the 29th days. Lipid analysis was performed using the method by Bligh and Dyer. Fatty acid composition was analyzed using a Gas Chromatography (GC). Fatty acids were determined using a comparison to the exit times of the FAME mix that contains 37 standard components. Fatty acid profiles have been investigated in two strains and consisted of 31 fatty acids. Saturated fatty acid (SFA) rate was 34.99% for Spg01 and 36.24% for Spg02. The basic SFA palmitic acid was C16:0 for both strains, and its rate was 21.25% for Spg01 and 20.78% for Spg02. Monounsaturated fatty acid rate was 19.82% for Spg01 and 13.06% for Spg02. Oleic acid (C18:1n9c) rate was 7.49% for Spg01 while Trans oleic acid (C18:1n9t) rate was 7.54% for Spg02. The total polyunsaturated fatty acid rate was 39.97% for Spg01 and 35.01% for Spg02. These results will form the basis for determining the basic compositions of macroalgae and producing secondary metabolites.

**Keywords:** *Spirogyra*, macroalgae, fatty acid



## EFFECT OF MIXTURE FUNGAL INOCULANT ON NUTRITIONAL COMPOSITION OF SUNFLOWER MEAL BY WAY OF FERMENTATION

**Ramazan TOSUN<sup>1\*</sup> and Sulhattin YAŞAR<sup>2</sup>**

<sup>1</sup>*Iğdır University, Faculty of Agriculture Department of Animal Science, Iğdir, Turkey. Orcid: 0000-0002-8209-6362, Tel: +90 546 429 6667*

<sup>2</sup>*Karamanoglu Mehmetbey University, Faculty of Engineering, Department of Food Engineering, Karaman, Turkey. Orcid: 0000-0001-9334-1303*

### Abstract

In this study, it was aimed to increase the nutrient and organic acid content and decrease the antinutritional factors by using solid-state fermentation method of sunflower meal (SFM) with *Aspergillus ficuum* (*A. ficuum*) + *Aspergillus niger* (*A. niger*) (ratio 2:1) fungal culture mixture. For this purpose, optimum fermentation conditions were determined using the studies in the literature. An optimized set of fermentation parameters (80% moisture, 4.5-5.5 pH, 26 °C temperature, continuous aeration of 1.5 L/min and agitation of 150 rpm) were used to ferment SFM samples with or without using mixed fungal inoculant for 0, 24, 48, and 72 h. Microbiological and chemical analyzes were made by taking samples under sterile conditions every 24 (0, 24, 48 and 72 hours) during fermentation. After drying the samples at low temperature (40-50 °C), nutrients, antinutritional substances and organic acid contents were determined. As a result of fermentation, crude ash and crude lipid content of SFM decreased by an average of 42% and 71%, respectively. Crude protein content decreased in the first 24 hours of fermentation and increased in the further fermentation period. Crude fiber, ADF and NDF decreased significantly during fermentation, the greatest decrease was in the first 24 hours of fermentation. When the effect of fermentation on organic acid contents was examined, acetic and butyric acid contents decreased while lactic acid contents increased significantly. The tannin content decreased in fermentation and the greatest decrease was in the first 24 hours of fermentation. On the other hand, phytic acid decreased during fermentation. As a result, 72 hours of fungal fermentation increased the nutritive value of fermented SFM. It can be said that it can be used as an organic acid additive in animal nutrition, however, these results need to be supported by animal studies.

**Keywords:** *Aspergillus ficuum*, *Aspergillus niger*, sunflower meal, solid-state fermentation



**NEUROTOXIC EFFECTS CAUSED BY SODIUM NITRITE IN ZEBRAFISH  
EMBRYOS/LARVAE (*DANIO RERIO*)**

ZEBRA BALIĞI EMBRİYOLARINDA/LARVALARINDA (*DANIO RERIO*) SODYUM  
NİTRİTİN NEDEN OLDUĞU NÖROTOKSİK ETKİLER

**Mine KÖKTÜRK<sup>1\*</sup>, Fikret ALTINDAĞ<sup>2</sup>, Güneş ÖZHAN<sup>3,4</sup>, Arzu ODUNKIRAN<sup>5</sup>**

<sup>1</sup>*Iğdir University, College of Applied Sciences, Department of Organic Agriculture Management, Iğdir, Turkey, ORCID:0000-0003-4722-256X*

<sup>2</sup>*Van Yüzüncü Yıl University, Medical School, Department of Histology and Embryology, Van, Turkey, ORCID:0000-0002-4074-5168,*

<sup>3</sup>*Dokuz Eylul University Health Campus, Izmir Biomedicine and Genome Center, Izmir, Turkey*

<sup>4</sup>*Izmir International Biomedicine and Genome Institute, Dokuz Eylul University, Izmir, Turkey, ORCID:0000-0002-4806-5917*

<sup>5</sup>*Iğdir University, Iğdir Vocational School of Higher Education, Department of Hotel, Restaurant and Catering Services, Iğdir, Turkey, ORCID: 0000-0002-6455-8594, e-mail:*

**Abstract**

Organisms are exposed to nitrite in various ways, from water sources, as a food additive-preservative and color source. In this study, we evaluated the effect of exposure to sodium nitrite (NaNO<sub>2</sub>), a widely used food additive, on important parameters (survival rate, hatching rate, malformations) for toxicological assessments in zebrafish embryo/larvae. We also investigated brain histopathological changes by exposing zebrafish embryos to different doses of sodium nitrite. Embryos were divided into five groups: one control group and four sodium nitrite-treated group (10, 100, 500 and 1000 mg/L) (30 embryos per group). The survival rate was significantly reduced at the highest concentration (1000 mg/L, 58%) compared to the other groups. When the effect of sodium nitrite on larval hatching rates was evaluated, it was observed that it delayed larval hatching at high concentrations (500 and 1000 mg/L). Similarly, morphological deformations were detected at high rates, especially at high doses (500 and 1000 mg/L), and malformations such as pericardial edema, curved body axis, tail malformation, microphthalmia were detected in embryos/larvae. The most observed malformation is pericardial edema with a rate of 83%. In histological examinations, necrotic cells were observed in the brain tissues of zebrafish larvae at 96 hours exposed to nitrite at concentrations of 500 and 1000 mg/L. Our results showed that sodium nitrite, which is used as an additive in the food industry, has neurotoxic effects in addition to the toxic effects reported in previous studies.

**Keywords:** Zebrafish; sodium nitrite; brain histopathology; hatching rate; malformations

**Özet**

Canlılar, nitritlere su kaynaklarından, gıda için katkı-koruyucu ve renk kaynağı olarak kullanımı ile çeşitli şekillerde maruz kalırlar. Bu çalışmada, yaygın kullanılan bir gıda katkı maddesi olan sodyum nitrite (NaNO<sub>2</sub>) maruz kalmanın zebra balığı embriyo/larvalarında toksikolojik değerlendirmeler için



önemli parametreler (hayatta kalma, kuluçkadan çıkış oranı, malformasyonlar) üzerindeki etkisini değerlendirdik. Zebra balığı embriyolarını farklı dozlarda sodyum nitrite maruz bırakarak beyin histopatolojik değişikliklerini de araştırdık. Embriyolar beş gruba ayrıldı: bir kontrol grubu ve dört sodyum nitrit ile tedavi edilen grup (10, 100, 500 ve 1000 mg/L) (grup başına 30 embriyo). Hayatta kalma oranı, diğer gruplara kıyasla en yüksek konsantrasyonda (1000 mg/L, %58) önemli ölçüde azaldı. Sodyum nitritin larva çıkış oranlarına etkisi değerlendirildiğinde yüksek konsantrasyonlarda (500 ve 1000 mg/L) larva çıkışını geciktirdiği görülmüştür. Benzer şekilde özellikle yüksek dozlarda (500 ve 1000 mg/L) yüksek oranlarda morfolojik deformasyonlar saptanmış ve embriyolarda/larvalarda perikardiyal ödem, eğri gövde eksen, kuyruk malformasyonu, mikroftalmi gibi malformasyonlar tespit edilmiştir. En fazla gözlemlenen malformasyon % 83 oranı ile perikardiyal ödemdir. Zebra balığı larvalarında 96.saatte beyin histolojik incelemelerinde 500 ve 1000 mg/L konsantrasyonlarda nekrotik hücreler gözlemlenmiştir. Sonuçlarımız gıda endüstrisinde kullanılan bu katkı maddesinin daha önceki çalışmalarda da bildirilen toksik etkilerine ek olarak nörotoksik etkilerinin de olduğunu göstermiştir.

**Anahtar kelimeler:** Zebra balığı; Sodyum nitrit; beyin histopatolojisi; larva çıkış oranı; malformasyonlar



## STUDY ON THE EFFECT OF THE HIGH-PRESSURE PUMP'S CAM-PROFILE ON FUEL INJECTION PARAMETERS AND DIESEL ENGINE POWER OF THE FISHING VESSEL

Ho Duc Tuan<sup>1st</sup>, Mai Duc Nghia<sup>2st</sup>

*1<sup>st</sup> Faculty of Transportation Engineering, Nha Trang University, Nha Trang city, VietNam*

*2<sup>st</sup> Faculty of Mechanical Engineering, Air Force Officer's college, Nha Trang city, VietNam*

### Abstract

The high-pressure pump cam profile directly affects the supply rules and fuel injection parameters, especially the injection pressure history in the high-pressure pipe, thereby affecting the engine's power. Therefore, when the engine is running, it is possible to measure pressure in the high-pressure pipeline ( $p_{hpp}$ ) to diagnose the technical state of the fuel injection system, which will soon prevent potential problems. In this paper, the research's results by simulating cam-profile corrosion to injection parameters using AVL Boost/Hydsim software and experiment on a 4CHE Yanmar diesel engine used as the main engine of a fishing boat presented. The results show that when the cam-profile is worn to 16%, the high-pressure pipe's pressure and the engine power reduced by approximately 18%, 7.4%, respectively.

**Keywords:** cam profile; pressure performance in the high pressure pipe; high pressure pump; power; fuel injection system; diesel engine of fishing vessel.



## HAFİFLETİLMİŞ VE DAYANIMI ARTTIRILMIŞ KATMANLI KOMPOZİT MİĞFER TASARIMI İÇİN TABAKA DİZİMLERİ ANALİZİ

### ANALYSIS OF LAYER ARRANGEMENTS FOR LIGHTENED AND STRENGTHENED LAYERED COMPOSITE HELMET DESIGN

**Burhan TEPEHAN<sup>1</sup>, İsmail Yasin SÜLÜ<sup>2</sup>**

*<sup>1,2</sup> İnönü Üniversite, Makine Mühendisliği Bölümü, Malatya/TÜRKİYE*

*<sup>1</sup> 0000-0003-0327-5272*

#### Özet

Bu çalışmada, hafifletilmiş ve dayanımı arttırılmış katmanlı bir kompozit miğfer tabakasının arasına ilave edilen metal sac malzemesinin kompozit yapı üzerinde ki etkileri incelenmiştir. Üç boyutlu sonlu elemanlar yöntemi kullanılarak deformasyon ve gerilme analizleri yapılmıştır. Analizlerde kullanılan malzemeler, karbon fiber, cam fiber ve alüminyum alaşımıdır. Bağlayıcı malzeme olarak ise epoksi reçine kullanılmıştır. Nümerik analizler için ANSYS paket programı kullanılmıştır. Kompozit tabakada oluşan hasar yükleri çarpışma analiz sonuçlarına göre tespit edilmiştir. Kompozit tabaka üzerinde oluşan toplam deformasyon ve eşdeğer gerilmeler gözden geçirilmiştir. Sonuç olarak aradaki sac levhanın ve yapılan kompozit diziliminin etkileri araştırılmıştır.

**Anahtar kelimeler:** Sonlu elemanlar yöntemi, Kompozit malzemeler, Miğfer ,Gerilme analizi, Hasar analizi ,çarpışma analizi

#### Abstract

In this study, the effects of the metal sheet material added between a lightened and strength enhanced layered composite helmet layer on the composite structure are examined. Deformation and stress analyzes are carried out by using the three dimensional finite element method. In the analysis, the materials carbon fiber, glass fiber and aluminum alloy are used. As for the binding material, epoxy resin is used. ANSYS package program is used for numerical analysis. The damage ratio in the composite layer is determined according to results of the analysis of collision. The whole deformation and equivalent stresses on the composite layer are reviewed. As a result, the effects of the steel plate and the composite delamination in between them are analyzed.

**Keywords:** Finite element method, Composite parts,Helmet , Stress analysis, Failure analysis, explicit dynamic



**DESIGN OF SMART FIRE EXTINGUISHING AMMUNITION****Ress. Asst. Murat Toptaş<sup>1\*</sup>, Prof. Dr. Mehmet Yılmaz<sup>2</sup>**

<sup>\*1</sup>Inonu University, *Department of Mechanical Engineering, Malatya, Turkey.*  
*ORCID NO: 0000-0001-9368-5675*

<sup>2</sup>Inonu University, *Department of Mechanical Engineering, Malatya, Turkey.*  
*ORCID NO: 0000-0001-5025-1842*

**Abstract**

Fires, occurring in a variety of environments and of different sizes, continue to threaten the entire world. Today, due to its independence from geography and the possibility of observing the entire fire area from above, the aerial method of fire suppression provides more effective results for fires that occur in open areas than other methods. However, still the existed tools used today to fight fires from the air cannot have the expected effect in extinguishing fires. There are two main reasons for this. The first is the low effectiveness of the extinguishing agents used in extinguishing and cooling operations, and the second is the problem of these agents not being released in the desired quantity and in the right places. This study focuses on the design of a new and effective firefighting tool to be used in aerial firefighting methods and will eliminate the above shortcomings. This designed tool is thrown the fire from aircraft. It contains a very effective mineral with extinguishing-cooling properties. This extinguishing tool is also assisted by some electronic sensors and software to perform its task autonomously after being dropped from the aircraft. The design of this tool, which takes its shape and dimensions from a real wartime munition (Mark 82 type air to ground low drag bomb), was created using the 3D modeling program Catia V5.R21, and the structural, numerical, and flow analyzes were performed using Ansys 16.0 software. The resulting design was awarded a prize in a national competition (TUBITAK 2242-University Students Research Project Competitions, Turkey second prize, 2019) and a patent application was filed for the commercial manufacture of the product.

**Keywords:** Smart fire extinguishing ammunition, Aerial firefighting, fire extinguishing bomb.

**Category:** Defense, Space and Aviation Engineering.



**BASMA YÜKÜ ALTINDA AMALGAM RESTORASYONLU DİŞ İLE SAĞLIKLI  
DİŞLERDE OLUŞAN GERİLMELERİN KARŞILAŞTIRILMASI****COMPARISON OF STRESSES IN HEALTHY TEETH WITH AMALGAM-RESTORED TEETH  
UNDER COMPRESSIVE LOAD****Kadir DOĞAN<sup>1</sup>, İsmail Yasin SÜLÜ<sup>2</sup>**<sup>1,2</sup>*İnönü Üniversitesi, Makine Mühendisliği Bölümü, Malatya/TURKEY*<sup>1</sup> 0000-0001-8850-0242**Özet**

Bu çalışmada, sağ üst premolar dişe sınıf II kavite alanı oluşturarak amalgam restorasyonlu ve sağlıklı diş olmak üzere iki farklı katı model tasarlanmıştır. Katı model olarak tasarlanan dişler üzerine iki farklı çiğneme kuvveti uygulanmıştır. Uygulanan iki farklı kuvvet sonucunda dişlerde meydana gelen toplam deformasyon ve eşdeğer stres (Von-Misses) değerleri sonlu elemanlar analiz yöntemi ile incelenmiştir. Çalışmanın sonucunda amalgam restorasyonlu ve sağlıklı dişte meydana gelen toplam deformasyon ve eşdeğer stres değerleri elde edilmiştir. Sonuç olarak amalgam restorasyonlu dişte oluşturulan kavite alanı ve kullanılan dolgu materyalinde meydana gelen değişimler incelenmiştir.

**Anahtar kelimeler:** Sonlu Elemanlar Yöntemi, Amalgam, Eşdeğer Gerilme (Von-Misses), Toplam Deformasyon

**Abstract**

In this study, two different solid models were designed: amalgam-restored and healthy tooth by creating a Class II cavity area to the upper right premolar tooth. Two different chewing forces were applied on the teeth designed as solid models. The values of total deformation and equivalent stress (Von-Misses) occurring in the teeth as a result of two different forces applied were examined by finite element analysis method. As a result of the study, total deformation and equivalent stress values occurred in amalgam-restored and healthy teeth were obtained. As a result, the cavity area created in the amalgam-restored tooth and the changes in the filling material used were examined.

**Keywords:** Finite Element Method, Amalgam, Equivalent Stress (Von-Misses), Total Deformation



## THE HYDRAULICAL COMPARISON AND ECONOMICAL EFFECTIVENESS OF PRACTICAL PROFILE SPILLWAY AND BROAD THRESHOLD STILL WAY BUILDINGS

**Giorgi NOSELIDZE**

*Georgian Technical University, Engineering, Department of hydro engineering, , Tbilisi, 68 M. Kostava st, Georgia*

### **Abstract:**

The spillway plays an important role in the successful operation of the reservoir. The spillway supports superfluous and floods water expense from reservoir emergency since up stream to down stream. There are different types of spillway in the world which operates on the different types of dams. There are two important types of spillway buildings: the practical profile spillway and broad-threshold spillway are different in structural and hydraulic forms from each other. It's important to compare these two types of spillway each other with hydraulic operation standpoint. There are discusses the maximum estimated emergency discharge in the down stream with a practical profile planned self on the dam. Spillway on the investigated, designed or operation construction. The analyses of the discussed examples show the replacement of the practical profile spillway with a broad-threshold spillway which will increase the reliability and economy of the building. It is foreased the hydraulic calculation of optional coupling of broad-threshold water intake with a chute.

**Key words:** emergency water, down stream, spillway, wide threshold, chute.



## LPG TÜP VALFİ EMNİYET PİMİ OPTİMİZASYONU

### OPTIMIZATION OF LPG CYLINDER VALVE SAFETY PIN

**Berkay SAYILGAN<sup>1\*</sup>, Engin ŞAŞMAZ<sup>2\*\*</sup>, Aydoğan ÖZDAMAR<sup>3\*\*\*</sup>**

<sup>1</sup>Ege University, Faculty of Engineering, Department of Mechanical Engineering, İzmir, Turkey.  
ORCID 0000-0002-5668-9172

<sup>2</sup>ECA Valf Sanayii A.Ş., Organize Sanayi Bölgesi, Kurtuluş Cad. No: 1, Manisa, Turkey.  
ORCID 0000-0002-6751-6373

<sup>3</sup>Ege University, Faculty of Engineering, Department of Mechanical Engineering, İzmir, Turkey.  
ORCID 0000-0002-6580-4101

#### Özet

Bu çalışmada, elle çalıştırılan tip LPG tüp valflerinin, demonte edilmesini engelleyen emniyet mekanizmalarında, sonlu elemanlar nümerik yöntemi kullanılarak, optimum tasarım elde edilmiştir. Optimum tasarımın, üretim hızını düşürmemesi, kullanılan malzeme miktarının azaltılması ve 22 Nm torka dayanması istenmektedir. Elle çalıştırılan tip LPG tüp valfleri; volan, mil ve gaz akışının sağlandığı kanalları da üzerinde bulunduran bir kafes olmak üzere, üç ana bölümden meydana gelmektedir. Volan-Mil bağlantısını destek parçasına dayanarak, sistem içerisinde tutan pimlerden oluşan emniyet mekanizmaları bulunur. Çalışmada, çift pimli ve orbital pimli olmak üzere iki farklı emniyet mekanizması tasarımı üzerinde durulmuştur. Sonlu elemanlar nümerik yöntemini kullanan ANSYS programı yardımıyla gerçekleştirilen analizler sonucunda, çift pim tasarımında pim çapının 3 mm'den 2.9 mm'ye ve destek yüksekliğinin 5.4 mm'den 5.3 mm'ye düşürülmesinin uygun olduğu görülmüştür. Orbital pim tasarımında ise, pim çapının 2.5 mm'den 2.4 mm'ye ve destek yüksekliğinin 1.9 mm'den 1.8 mm'ye düşürülmesi uygun bulunmuştur. Ayrıca, analizlerde görülen deformasyon değerlerine göre orbital pim ve çift pim mekanizmaları karşılaştırılmış ve maliyet açısından orbital pim tercih edilirken, uzun ömür açısından çift pim mekanizmasının kullanılması gerektiği anlaşılmıştır.

**Anahtar Kelimeler:** Çift pim mekanizması, Orbital pim mekanizması, LPG, CuZn<sub>30</sub>, CuZn<sub>39</sub>Pb<sub>3</sub>.

#### Abstract

In this study, an optimum design was obtained by using the finite element method (FEM) for safety mechanisms that prevent the disassembling of the handwheel type LPG cylinder valves. The optimum design is requested to reduce amount of raw material used, to withstand to 22 Nm torque and not to reduce production speed. LPG Cylinder valves with handwheel consist of three main parts; these are body, handwheel and spindle. A safety mechanism consisting of pin or pins hold the handwheel - spindle connection inside of the valve body by leaning them on the pin parts. In this study, two different safety mechanism designs; the double pin and the radial pin are emphasized. As a result of the ANSYS analysis using FEM, the pin diameter in the double pin design has been reduced from 3 mm to 2.9 mm and height of the support has reduced from 5.4 mm to 5.3 mm. In the radial pin design, the pin diameter has reduced from 2.5 mm to 2.4 mm and the support height has reduced from 1.9 mm to 1.8 mm. In addition, according to the deformation values obtained by the analysis, these two safety pin designs are compared and consequently the double pin type is preferred in terms of the long-life usage while the radial pin type is preferred in terms of cost.

**Keywords:** Double pin mechanism, Radial pin mechanism, LPG, CuZn<sub>30</sub>, CuZn<sub>39</sub>Pb<sub>3</sub>.



## QUASI-STATIC INDENTATION (QSI) RESISTANCE AT DIFFERENT LOADING RATES AND COMPRESSIVE RESPONSE OF HOT TOOL WELDED (HTWED) DISSIMILAR THERMOPLASTIC JOINTS

Nahit ÖZTOPRAK <sup>1\*</sup>

<sup>1</sup> Dokuz Eylul University, Faculty of Engineering, Department of Mechanical Engineering, Izmir, Turkey.

ORCID ID: 0000-0003-1132-8768

### Abstract

Thermoplastics and their composites have shown outstanding advantages in terms of recyclability and mechanical properties. Lightweight potential of these materials has become attractive for many engineering applications. With the widespread use of these materials, there is a need to join them together. Hence, it is necessary to better understand the mechanical properties of dissimilar joints. In this research, homopolymer type polypropylene (PP) and PP compound reinforced with 30% glass fiber are used. Hot Tool Welding (HTW) has been considered as an effective way to manufacture sound connections among various joining approaches. HTW experiments are performed on a commercial plastic welding machine, equipped with heated flat plates. The constant pressure (3.25 Bar) and the weld displacement (1 mm) are maintained during the welding processes. The employed welding conditions are 30 s and 60 s for the heating and welding times, respectively. Plate temperatures are separately arranged as 225 °C and 230 °C for the PP and the PP composite, respectively. After HTW, quasi-static indentation (QSI) response at different loading rates and compressive behavior of the thermoplastic composite joints are investigated. The experimental results show that brittle fracture is observed at both rates when QSI is applied from the PP composite. In other respects, the increased displacement is noted by application of the QSI to the neat PP. The average compressive load capacity of the HTWed dissimilar welds is also calculated as 3869.4 N.

**Keywords:** polypropylene composite, hot tool welding, dissimilar joint, mechanical testing



## EVALUATION AND INFLUENCE OF HOT EXHAUST GAS RECIRCULATION TECHNOLOGY ON THE PERFORMANCE OF A SINGLE-CYLINDER DIESEL ENGINE AND EMISSION LEVELS

Masood A. Masood<sup>1\*</sup>, I.S. Naser<sup>2</sup>, Abdussalam Ali Ahmed<sup>3</sup>, Zayad M. Sheggaf<sup>4</sup>,

Ahmad A. M. Idris<sup>5</sup>

<sup>1</sup>College of Technical Sciences, Bani Waild, Libya

ORCID: [https:// orcid.org/0000-0002-3314-5092](https://orcid.org/0000-0002-3314-5092)

<sup>2</sup>Renewable Energy Engineering Department, Faculty of Energy and Mining, University of Sebha, Libya.

ORCID: [https:// orcid.org/0000-0002-9642-6078](https://orcid.org/0000-0002-9642-6078)

<sup>3</sup>Mechanical Engineering Department, Bani Waleed University, Bani Waleed, Libya.

ORCID: <https://orcid.org/0000-0002-9221-2902>

<sup>4</sup>College of Technical Sciences, Bani Waild, Libya.

ORCID: [https:// orcid.org/0000-0001-8204-7221](https://orcid.org/0000-0001-8204-7221)

<sup>5</sup>Department Of Mechanical Engineering, The Higher Institute Of Science And Technology, Tobruk/Libya

ORCID: [https:// orcid.org/0000-0002-3314-5092](https://orcid.org/0000-0002-3314-5092)

### Abstract

The world today is facing the dilemma caused by air pollution originating from harmful pollutants such as Nitrogen oxide (NO), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), and unburnt hydrocarbons (UHC) produced by diesel engines. One approach that has had considerable success in overcoming this environmental issue is by introducing exhaust gas recirculation (EGR) into diesel engine system. EGR re-circulates exhaust gas back into the engine cylinder hence lowering peak combustion temperature, which in turn reduces the formation of NO. Experiments was carried out by implementing EGR consisting a non-insulated stainless steel pipe together with an industrial grade ball valve on a 219 cc single cylinder four- stroke Yanmar L48N diesel engine. The objective is to understand the effect of EGR on diesel engine performance and emissions levels of NO in particular, CO, CO<sub>2</sub>, and HC contained in exhaust gas. The engine was operated at an increasing engine speed from 1200rpm up to 3000rpm and significant data such as exhaust gas emission levels was recorded at various EGR loads. EGR flow rate was regulated using the ball valve. This is evident by the increase in particulate emissions that corresponds to an increase in EGR. CO and CO<sub>2</sub> emissions were increasing pattern as EGR ratio increased. The reason for this is the incomplete combustion could occur easier due to the lack of oxygen. The bigger ratio of EGR gives the best NO<sub>x</sub> reduction. Unburned hydrocarbon was increased at lower EGR ratio and later starts to decrease at EGR rate 8.2%.

**.Keywords:** Engine, Diesel, Single-Cylinder, EGR, Emissions.



## PREDICTION OF LABOR ACTIVITY RECOGNITION IN CONSTRUCTION WITH MACHINE LEARNING ALGORITHMS

İbrahim KARATAŞ<sup>1</sup>, Abdulkadir BUDAK<sup>2</sup>

<sup>1,2</sup>Osmaniye Korkut Ata University, Department of Civil Engineering, Osmaniye, Turkey

ORCID ID: 0000-0003-0845-4536, Tel: +905072581918

<sup>2</sup>ORCID ID: 0000-0002-6747-9103, Tel: +905070998807

### Abstract

It is essential that the control and management of the work of labors in construction project management is effective. Considering the studies on this subject, several control and management tools have emerged with the development of technology recently. One of them is the integration of artificial intelligence into construction project management. In this study, it is aimed to building artificial intelligence models to recognition on activities in a construction work in order to effectively utilization project management and control. In accordance with this purpose, 3-axis accelerometer, gyroscope, and magnetometer data were obtained from the labors through the sensor in order to predict the logging, carrying, surfacing, vibrating and waiting activities for a soil test setup in the laboratory environment. This raw data from the sensor is segmented into windows containing a certain number of data points and, feature extraction is performed using basic statistical features for each window. In this way, the data bring in compliance with the model. The basic machine learning algorithms logistic regression, support vector machine, decision tree and k-nearest neighbors algorithms were used for the prediction of these activities with artificial intelligence with the data bring in compliance with the model, and the data related to activities were trained and modelled. According to the results of the analysis, the best estimation was obtained with the support vector machine algorithm with an accuracy of 89%. In other algorithms, respectively, 88% accuracy was contrived in the k-nearest neighbors algorithm, and 79% accuracy in the logistic regression and decision tree algorithms. According to these values, it has been observed that the activities performed in a construction work can be estimated at a very high rate. In addition, the data used in this study can be used to reach higher predict values using different algorithms. In this way, with the data obtained from the sensors installed at the laborer at the construction sites, it can be automatically determined which work the laborer do at a certain accuracy rate. It is thought that this will utility the project manager in terms of construction management and control. It is also hoped that this study will contribute significantly to the recognition of activities, not only in construction project management, but also in every discipline where labor activities exist.

**Keywords:** Construction Management, Machine Learning, Activity Recognition, Labor



**STEEL FIBER REINFORCED FLOWABLE FILL****Osman OKUYUCU<sup>1</sup>**

Tekirdağ Namık Kemal University, Corlu Engineering Faculty, Tekirdağ-Corlu, Turkey

<sup>1</sup>ORCID ID: <https://orcid.org/0000-0002-4601-493X>**Abstract**

Steel fibers are quite commonly used in the field of construction materials. Steel fibers have many advantages especially when they are used in concrete. These advantages, which depend on the type of fiber, are increase in compressive strength and indirect tensile strength of concrete. Besides, the steel fibers also prevent shrinkage that occurs due to evaporation of water from concrete. Therefore, the steel fibers prevent formation of cracks in concrete due to shrinkage. This study explains the results of laboratory tests regarding the use of steel fibers in flowable fill. The constituents of flowable fills are high amount of water, fly ash, cement, and fine aggregate. High amount of water provides flowability to flowable fill. Meanwhile, high amount of water reduces compressive strength of flowable fills. In this respect, the steel fibers are expected to increase compressive strength of flowable fill in this study. The length of the steel fibers in this study is 2.54 cm, their aspect ratio is 43 and specific gravity is 7.8. Cylindrical samples were prepared by adding steel fibers at the rate of 0.5% of the total volume to the flowable fill in the laboratory. These samples were kept in the molds for 7 and 28 days. Compressive strength test was conducted at the end of day 7 on cylindrical samples. The compressive strength results of control samples, which don't contain steel fiber, was found to be 605 kPa and compressive strength of flowable fill samples, which contain steel fiber at the rate of 0.5%, was found to be 750 kPa. This indicates that using steel fiber in flowable fill increases 7-day strength values by 25%. At the end of day 28, the compressive strength of the samples, which don't contain steel fiber, was found to be 1240 kPa and sample containing steel fiber was found to be 1460 kPa. This demonstrated that steel fibers increase the strength values by approximately 18% at the end of day 28. As can be understood from the 7-day and 28-day results, steel fibers enhance strength values at 7 and 28 days in flowable fill. Another important point is spread diameter of the flowable fill. In the flowability tests, the flowable fill samples without steel fibers have a spread diameter of 34.5 cm and the spread diameter of the flowable fill containing steel fibers at the rate of 0.5% was found 31.5 cm. The study found that steel fibers reduce flowability values of the flowable fill but spread diameter is still within the standard values.

**Keywords:** Steel fiber, flowability, flowable fill, Compressive strength, spread diameter



## TRAFFIC CONGESTION AND EFFICIENT WAYS TO DEAL WITH IT IN TBILISI, GEORGIA

**Nino Kacharava<sup>1</sup>, Natali Maisuradze<sup>2</sup>, Nia Iskandarova<sup>3</sup>**

<sup>1</sup>San Diego State University Georgia, Civil Engineering, Undergrad, Tbilisi, Georgia.

<sup>2</sup> San Diego State University Georgia, Civil Engineering, Undergrad, Tbilisi, Georgia.

<sup>3</sup> San Diego State University Georgia, Civil Engineering, Undergrad, Tbilisi, Georgia.

### Abstract

Traffic Congestion has become a new version of plague for urbanized areas. Massive breakthroughs in technology, increasing in production of motorized cars, global reduction in prices for automobiles and the rapid population growth in Tbilisi, Georgia has led to the urgency of complete rearrangement of transportation system in the city.

As a post-Soviet Union country, Georgia has had rudiments like “Marshrutkas” (privately owned minibuses) as a primary mode of transportation. Serious research and actions started in 2019 when sustainable urban mobility plan was introduced in Tbilisi; which favors public transport and pedestrians. In the course of this project one of the main avenues was converted into complete street model and hourly parking was introduced in the city centers. However, the problem regarding traffic jams still stands. This paper contributes to analyzing current situation in Tbilisi and suggesting suitable solutions. It will cover how reversible lanes, road pricing, signalized Intersections, reserved bus lanes and parking can be adapted to Tbilisi in order to reduce traffic jams.

**Key Words:** traffic congestion, transportation systems, sustainable development, civil engineering



## EXPERIMENTAL STUDY ON QUASI-STATIC PUNCH SHEAR RESISTANCE OF GRID-SCORED FOAM CORE SANDWICH COMPOSITES

Halis KANDAŞ<sup>1</sup>, Fatih BALIKOĞLU<sup>2\*</sup>, Tayfur Kerem DEMİRCİOĞLU<sup>2</sup>

<sup>1</sup>The Graduate School of Natural and Applied Sciences, Dokuz Eylül University, İzmir, Turkey

<sup>2</sup>Department of Mechanical Engineering, Balıkesir University, Balıkesir, Turkey

### Abstract

The grid-scored foams are used to produce modern boat decks and hulls, aerofoil shell structures for wind turbine blades, etc. Such foams allow the manufacture of composite sandwich panels in curved geometries and resin flow to infusion processes through slits. It is well known that the reduction of load-carrying capacity due to puncture damages is one of the main disadvantages of sandwich structures. The aim of this study is to evaluate the resistance of grid-scored foam core sandwich panels to puncture loads. The test specimens were manufactured by using plain and grid-scored foams Airex C70.75 with a thickness of 25 mm and E-glass-fibre reinforced composite face sheets with a thickness of 2.5 mm. The vacuum-assisted resin transfer method with a vinyl ester resin (bisphenol-A) was utilized to manufacture sandwich composite panels. The experiments were carried out with a hemispherical indenter on a Shimadzu universal test machine with displacement control and a cross-head speed of 1 and 10 mm/min. According to the test results, maximum loads of specimens with grid-scored foam were higher than those with plain foams at all test speeds. Additionally, maximum load values increased along with test speed.

**Keywords:** *Grid-scored, quasi-static punch shear, sandwich composite*



# OKSİMATRİNİN SIÇANLARDA PENİSİLİN İLE OLUŞTURULMUŞ EPİLEPTİFORM AKTİVİTE ÜZERİNE ETKİLERİ: BİR ELEKTROFİZYOLOJİK ÇALIŞMA

## EFFECTS OF OXYMATRINE ON THE PENICILLIN INDUCED EPILEPTIFORM ACTIVITY IN RATS: AN ELECTROPHYSIOLOGICAL STUDY

**Dr. Ersin BEYAZÇİÇEK<sup>1</sup>, Dr. Özge BEYAZÇİÇEK<sup>1</sup>**

<sup>1</sup>Duzce University, Medical School, Department of Physiology, Duzce, Turkey

<sup>1</sup> ORCID ID: 0000-0002-6817-4512

<sup>1</sup> ORCID ID: 0000-0002- 8617-4380

### Özet

Fabaceae ailesinin birçok türünden izole edilen oksimatrinin (OMT), antikanser, anti-astimatik, anti-neoplastik, antimikrobiyal, antiviral ve antiinflamatuvar gibi birçok etkisi gösterilmiştir. Bu çalışmanın amacı, NMDA'nın (N-metil-D-aspartat) neden olduğu eksitotoksik etkileri inhibe ettiği gözlenen akut OMT uygulamasının sıçanlarda penisilinle oluşturulmuş deneysel epilepsi modeli üzerindeki etkisini elektrofizyolojik olarak araştırmaktır. Bu çalışmada 35 yetişkin erkek Wistar sıçan kullanıldı. Sıçanlar, Kontrol (sadece penisilin uygulandı), sadece OMT (sadece 60 mg/kg OMT uygulandı), OMT\_15 (15 mg/kg OMT ve penisilin uygulandı), OMT\_30 (30 mg/kg OMT ve penisilin uygulandı) ve OMT\_60 (60 mg/kg OMT ve penisilin uygulandı) olmak üzere beş gruba ayrıldı. Penisilin dışındaki tüm maddeler intraperitoneal (i.p.) olarak uygulandı. Sıçanlar 1.25 g/kg ürethan anestezisi altında sol korteks üzerindeki kemik kaldırıldı ve somatomotor alana iki adet elektrot yerleştirildi. Gruplardan beş dakikalık bazal aktivite kaydından sonra i.p. OMT enjekte edildi. OMT uygulanmasının 30. dakikasında penisilin (500 IU) intrakortikal olarak (i.c.) uygulandı (sadece OMT grubu hariç). Penisilin sonrası 120 dakika daha ECoG kaydı alındı. Kayıtlardan elde edilen elektrokortikografik verilerden ilk epileptiform aktivitenin başlama latensi, zamana bağlı epileptiform aktivitenin diken dalga sıklığı, zamana bağlı diken dalga genliği ve toplam diken dalga sıklığı analiz edildi. Sadece OMT uygulanan grupta herhangi bir epileptiform aktivite gözlemlenmedi. İlk epileptiform aktivite başlama latensi bakımından gruplar karşılaştırıldığında OMT\_60 grubunun latensinin kontrol grubuna göre daha uzun olduğu saptandı. Grupların zamana bağlı epileptiform aktivitenin diken dalga sıklıkları karşılaştırıldığında, OMT\_60 grubunun diken dalga sıklığının kontrol grubuna göre daha düşük olduğu belirlendi. Benzer şekilde OMT\_15 ve OMT\_60 gruplarının toplam diken dalga sıklıkları kontrol grubuna göre daha düşük olduğu saptandı. Zamana bağlı diken dalga genlikleri bakımından gruplar arasında istatistiksel olarak anlamlı fark saptanmadı. Mevcut çalışmanın sonuçları, OMT uygulamasının sıçanlarda penisilin ile oluşturulan epilepsi modelinde antiepileptik etkiye sahip olduğunu ve gelecekte potansiyel bir antiepileptik ilaç olabileceğini göstermektedir.

**Anahtar Kelimeler:** Oksimatin, Epileptiform Aktivite, Elektrokortikografi, Sıçan

### Abstract

Oximatine (OMT), which is isolated from many species of the Fabaceae family, has been shown to have many effects such as anticancer, anti-asthmatic, anti-neoplastic, antimicrobial, antiviral and anti-inflammatory. The aim of this study is to investigate the effect of acute OMT administration electrophysiologically, which was observed to inhibit the excitotoxic effects caused by NMDA (N-methyl-D-aspartate), on the experimental epilepsy model created with penicillin in rats. In this study 35 adult male Wistar rats were used. Rats were divided into five groups as Control (applied of only



penicillin), only\_OMT (applied of only 60 mg/kg OMT), OMT\_15 (applied of 15 mg/kg OMT+penicillin), OMT\_30 (applied of 30 mg/kg OMT+penicillin) and OMT\_60 (applied of 60 mg/kg OMT+penicillin) groups. All of the substances were administered intraperitoneally except penicillin. Rats were anesthetized with 1.25 g/kg dose urethane, the left part of the bone on the cortex were removed, and two electrodes were placed onto somatomotor area. After the five-minute basal activity recording taken, OMT were applied. Penicillin (500 IU) was administered intracortically (i.c.) at the 30th minute of OMT application (except only OMT group). ECoG recording was taken for another 120 minutes after penicillin. The latency time to onset of first spike-wave, time-dependent spike-wave frequency, time-dependent amplitude of spike-wave, and total spike-wave frequency were analyzed from Electrocorticographic data which obtained from recordings. In only the OMT group was not observed any epileptiform activity. When the groups were compared in terms of the latency time to onset of first spike-wave, it was found that the latency of the OMT\_60 group was longer than the control group. When the spike wave frequencies of the time-dependent epileptiform activity of the groups were compared, it was determined that the spike wave frequency of the OMT\_60 group was lower than the control group. Similarly, total spike wave frequencies of OMT\_15 and OMT\_60 groups were found to be lower than the control group. There was no statistically significant difference between the groups in terms of time-dependent spike wave amplitudes. The results of the present study show that OMT administration has an antiepileptic effect in the penicillin induced epilepsy model in rats and could be a potential antiepileptic drug in the future.

**Key words:** Oxymatrine, Epileptiform Activity, Electrocorticography, Rat,



## ANTI-DIABETIC POTENTIAL OF NEWLY SYNTHESIZED OXYGEN AND NITROGEN CONTAINING HETEROCYCLIC DERIVATIVES

**Prof. Dr Lincy Joseph<sup>1\*</sup> , Prof .Dr Mathew George<sup>2</sup>**

<sup>1\*</sup>*School of Pharmacy, Sharda University, Noida, India.*

<sup>2</sup>*School of Pharmacy, Sharda University, Noida, India.*

### Abstract

#### Introduction

Alpha amylase is enzyme produced in the body for breaking down starch into smaller carbohydrates. It facilitates absorption of glucose from the complex food materials. When glucose level is higher than required will lead to the hyperglycaemia condition. .We have synthesized hundred heterocyclic compounds containing oxygen and nitrogen as heteroatoms like oxazoles, isoxazoles, oxazines and oxazepines.

#### Methods

Oxazolines prepared by mixing substituted aldehydes , PHPB (Pyridinium Hydrobromide PerBromide) and water ,then added this solution to dimethyl amine with constant stirring followed by the addition of ethyl acetate.

Isoxazoles prepared in two steps ,first chalcones were prepared by the reaction of aromatic aldehydes with aromatic ketones in aqueous alcoholic alkaline medium. Resultant chalcones made to react with hydroxylamine hydrochloride and sodium acetate to prepare isoxazole compounds.

Oxazines prepared by mixing benzaldehyde, acetophenone and ethanol ,then added sodium hydroxide and stirred well. Cooled and the crystals collected ,then cyclized using Urea, Sodium Acetate in ethanol.

Oxazepines prepared by the reaction of primary amine and aromatic aldehyde and the resultant imine was cyclised with Phthalic anhydride or succinic anhydride in the presence of Benzene.

In each series twenty five compounds synthesized and their structure characterized by IR, NMR and CHN analysis. All compounds subjected to study of amylase inhibitory effect using starch iodine method.

#### Conclusion

Among all four series isoxazole derivatives shown significant amylase inhibitory effect. In that series brominated phenyl ring at 5<sup>th</sup> position and hydroxylated phenyl ring attached at 3<sup>rd</sup> position exhibited excellent amylase inhibitory property.

**Key words** : oxazoles, , isoxazoles, oxazines ,oxazepines , Amylase inhibitory effect.



## NOVEL PRESCRIBING PATTERN AND IMPACT ON PSYCHOSOCIAL HEALTH OF PATIENTS UNDERGOING HAEMODIALYSIS

**Prof .Dr Mathew George \*<sup>1</sup>, Prof. Dr Lincy Joseph<sup>2</sup>**

<sup>1</sup>*School of Pharmacy, Sharda University, Noida, India.*

<sup>2</sup>*School of Pharmacy, Sharda University, Noida, India.*

### Abstract

Chronic Kidney Disease (CKD) is defined as the reduction in GFR and/or urinary abnormalities or structural abnormalities of the renal tract. Invention of prescribing pattern can identify the factors responsible for polypharmacy and the problems associated with it.

The objectives of the invention were to evaluate the prescribing pattern and its safety as well as to determine the impact on psychosocial health of patients undergoing Hemodialysis.

### Methods

A total of 100 patients were included in the study and majority of the patients were in the age of 65 and above .Male population was higher than the female population..

The most prescribed drug in the present invention is, population was found to be cardiovascular drugs(25.8%).

This was followed by Blood and blood forming agents(20.2%),

Binding agents(15.2%),

Antithrombotics(11.3%)

And PPIs(6.8%).

88% of the patients were adherent to the treatment regimen.

29% of the patients were found to have drug interactions and one of them had an ADR

Most of the patients undergoing HD were predisposed to depression and insomnia.

### Conclusion

The invention results concluded that the most prescribed drug in the population was Cardiovascular Drugs (25%) which was followed by blood and blood forming agents(19.3%), binding agents(14.5%), anti thrombotic (10.8%) and PPIs(6.8%).

The invention also revealed that most of the patients undergoing HD are predisposed to depression and Insomnia. The invention have been provide an overall estimate of the drugs being prescribed among the CKD patients hospitals.

**Keywords :** CKD , Prescribing pattern, Hemodialysis (HD) , ESRD



## TOTAL PHENOLIC AND TOTAL FLAVONOIDS CONTENT OF BULGARIAN MEDICAL PLANTS

<sup>1</sup>Slaveyka Paneva, <sup>1\*</sup>Silvia Tsanova-Savova, <sup>2</sup>Stefan Velikov

<sup>1</sup> Medical College “Yordanka Filaretova”, Medical University – Sofia

<sup>2</sup> Faculty of Public Health, Medical University – Sofia

### Abstract

Bulgarian herbs are known worldwide for their high percentage of biologically active substances and namely polyphenols, which are powerful antioxidants. In the present study the total phenolic and total flavonoids content of 11 Bulgarian medical plants was determined: Elderberry (*Sambucus nigra*), Hawthorn (*Crataegus monogyna*), Wild thyme (*Thymus serpyllum*), Burra gokharu (*Tribulus terrestris*), Marigold (*Calendula officinalis*), Oregano (*Origanum vulgare*), St. John's Wort (*Hypericum perforatum*), Nettle (*Urtica dioica*), Peppermint (*Mentha piperita*), Lemon balm (*Melissa officinalis*), and Ironwort (*Sideritis scardica*). Total phenols and total flavonoids were extracted from samples following two procedures: with 80% methanol in ultrasonic bath for 20 minutes at 350C and by aqueous infusion for 15 minutes in water bath. The amount of total phenols was determined by the Folin – Ciocalteu method, which gave an intense blue color in the presence of phenolic compounds at 750 nm. The results are expressed as gallic acid equivalent (mg GAE / g herb sample). The amount of total flavonoids was determined using Al(NO<sub>3</sub>)<sub>3</sub>, which forms a stable pink color at  $\lambda = 510$  nm. The results are presented as rutin equivalent (mg RE / g herb sample). The results show that the highest amount of total phenolic are found in St. John's Wort (103.55 mg GAE/g), while the lowest content was determined in Burra gokharu (8.29 mg GAE/g). The richest source of total flavonoids is oregano (129.75 mg RE/g) and Burra gokharu herb holds the lowest total flavonoids content (4.46 mg RE/g). The present results provide new data on polyphenolic antioxidants in Bulgarian medicinal plants, which will allow identification of the most accessible sources of polyphenols among them for preparation of effective antioxidant herb combinations.

**Key words:** Medical plants, Total Phenolic, Total Flavonoids

The present study is part of the Project “Comparative Study of antioxidant polyphenolic content of medical plants, their fruits and food supplements”, Grant 2020, Medical Science Council of Medical University-Sofia, Contract Nr. D-127/24.06.2020



## DETERMINATION OF THE RELATIONSHIP BETWEEN CYP1A1 T1101C (rs 1048943) GENE VARIATION AND SERUM COPPER LEVELS IN COLORECTAL CANCER PATIENTS

Assist. Prof. Dr. Arzu AY<sup>1\*</sup>

*<sup>1\*</sup>Trakya University, Faculty of Medicine, Department of Biophysics, Edirne, Turkey  
ORCID Number: 0000-0002-8412-091X*

### Abstract

Colorectal cancer is a neoplastic process that occurs in colon tissue. Colorectal cancer which affects the quality of life of individuals causes serious morbidity and mortality. Colorectal cancer is a multifactorial disease in which genetic and environmental factors play a role together. The CYP1A1 gene, one of the important members of the CYP1 enzyme family, participates in the activation of procarcinogens and thus plays an important role in susceptibility to various cancer types. The CYP1A1 gene is an effective gene in colorectal cancer susceptibility through various exogenous factors. Several genetic variations have been identified in the CYP1A1 gene which is localized on chromosome 15 (15q22.2-q24). Protein function alteration occur as a result of CYP1A1 T1101C (rs 1048943) gene variation. Trace elements are effective environmental factor in the pathogenesis of colorectal cancer. Trace elements play an important role in biological processes necessary for the fulfillment of functions such as antioxidant enzyme activity, cell division and differentiation. The effects of trace elements may vary depend on cancer types. Copper one of the trace elements is an effective trace element in antioxidant defense, protein synthesis and DNA repair. Imbalances in trace element levels such as copper have been associated with colorectal cancer development and progression. The aim of our study was to investigate the relationship between CYP1A1 T1101C (rs 1048943) gene variation and serum copper levels in patients with colorectal cancer. Our study was performed with patients diagnosed with colorectal cancer and healthy controls. CYP1A1 T1101C (rs 1048943) gene variation genotype distributions were determined using the Real-Time Polymerase Chain Reaction method. Measurement of serum copper levels was carried out by atomic absorption spectrophotometer method. In our study, serum copper levels were determined to be significantly higher in colorectal cancer patients carrying CT heterozygous and TT homozygous genotypes of the CYP1A1 T1101C (rs 1048943) gene variation compared to healthy controls ( $p<0.05$ ). According to the results of our study, the evaluation of CYP1A1 T1101C (rs 1048943) gene variation and serum copper levels together is extremely important in terms of early diagnosis, development and progression of colorectal cancer.

**Keywords:** Colorectal cancer, CYP1A1 T1101C (rs 1048943) gene variation, trace elements levels, serum copper levels, Real-Time polymerase chain reaction, atomic absorption spectrophotometer



## TO THE INTERNAL STRUCTURE OF THE FACIAL NERVE

**KERIMZADE G.E.**

*Department of Human Anatomy and Medical Terminology, Azerbaijan Medical University, Baku,  
Azerbaijan*

### **Abstract**

The structural organization of the facial nerve in the age aspect has not received sufficient reflection in the scientific literature. Scientifically, further comprehensive studies of the external structure and structural organization is needed, both of the main trunk of this nerve, and of its individual branches, which are the conductor link of innervation. We conducted a study of the external structure and myeloarchitectonics of the nerves of mimic muscles in different age groups. The objects were the trunk and branches of the facial nerve. Pieces of nerves were removed from human corpses of different age periods, starting from prenatal ontogenesis and up to the old age of the postnatal period. The branches of the facial nerve at the stages of ontogenesis are a complex complex composed of myelin fibers and auxiliary components. In the early period of prenatal ontogenesis, there are mainly low myelinated and fine myelin fibers. Early myelination of the studied nerve is noted. At the subsequent stages of the postnatal period, further differentiation of myelin fibers occurs, an increase in the quantitative and qualitative indicators of myelin conductors occurs, their ratio changes, and a shift occurs in favor of medium and thick myelin fibers. In the elderly and senile age, due to involutive processes, the number of myelin conductors in all branches of the facial nerve decreases. Based on the data obtained, it follows that the myelin component of the branches of the facial nerve at all stages of ontogenesis is subject to dynamic variability. For animal branches, the characteristic spectrum of myelin fibers was medium and large caliber fibers. The presence of a large number of myelinated nerve fibers of medium and large diameter in the branches of the facial nerve, undoubtedly, provide physiological parameters for the conduction of impulses along the nerve fiber, which are necessary for rapid reactions of facial muscles.

**Key words:** facial nerve, myeloarchitectonics, myelin fibers.



**THE EFFECT OF BIRTH TYPE ON TOTAL THIOL AND NATIVE THIOL IN ALEPPO  
GOATS AND KIDS**  
HALEP KEÇİLERİ VE OĞLAKLARINDA TOTAL TİYOL VE NATİVE TİYOL ÜZERİNE  
DOĞUM ŞEKLİNİN ETKİSİ

**Assistant Professor Tuğra AKKUŞ<sup>1</sup>**

*<sup>1</sup>Department of Obstetrics and Gynaecology, Faculty of Veterinary Medicine, Harran University,  
Sanliurfa-TURKEY  
ORCID: 0000-0002-6002-5942*

**Abstract**

Dystocia is a reproductive problem that describes the maternal inability to give birth to her offspring by her own effort. Oxidative stress occurs through the imbalance of reactive oxygen and nitrogen species and the antioxidant system towards oxidation. It is a natural process, with specialized mechanisms keeping this stress under control. In case where these mechanisms fall insufficient, oxidative damage occurs. The present study was carried out to investigate the effect of dystocia on total thiol and native thiol, which are oxidative stress markers, in Aleppo goats and kids. The goats were divided into 2 groups according to type of birth. Group 1 consisted of goats with eutocia (n=20) and their kids (n=20) and Group 2 consisted of goats with dystocia (n=20) and their kids (n=20). Blood samples were taken from goats and kids in both study groups to be used in postnatal oxidative stress (total thiol, native thiol) evaluations and serum was extracted. Obtained data were analyzed with Independent samples t-test. Pearson correlation coefficients were calculated to determine the relationships between measurements. According to this; Total thiol and native thiol levels of kids and goats were found to be higher in group 1, with a statistically significant difference according to the type of birth ( $p<0.05$ ). Kids in Group 1; A significant correlation was found between total thiol-native thiol value ( $p<0.05$ ). This relationship was found to be positive with a rate of 46.7%. That is, as the total thiol increases, the native thiol value also increases. There was no significant correlation between the correlation measurements made in kids and goats in the other groups ( $p>0.05$ ). As a result, significant differences were found in total thiol and native thiol levels in both goats and kids in the dystocia group compared to the eutocia group. Knowing the difference in these parameters, which are indicators of oxidative stress, it was thought that healthier and less offspring could be lost with timely measures.

**Anahtar kelimeler:** Goat, kid, total thiol, native thiol, dystocia, eutocia

**Özet**

Güç doğum annenin yavrusunu kendi çabasıyla doğuramamasını tanımlayan reproduktif bir problemdir. Oksidatif stres, reaktif oksijen ve nitrojen türleri ile antioksidan sistem arasındaki dengenin oksidan yönde bozulması ile ortaya çıkar. Doğal bir süreç olup bu stresi kontrol altında tutan özelleşmiş mekanizmalar mevcuttur. Bu mekanizmaların yetersizliği durumlarında oksidatif hasar oluşur. Sunulan çalışma Halep keçisi ve oğlaklarında güç doğumun oksidatif stres belirteçlerinden olan total tiyol ve native tiyol üzerindeki etkisini araştırmak için yapıldı. Çalışmada toplam 40 adet Halep ırkı keçi kullanıldı. Keçiler, doğum şekline göre 2 gruba ayrıldı. Çalışmanın birinci grubunu (Grup 1, n=20); normal doğum şekillenen keçiler ve yavruları, çalışmanın ikinci grubunu (Grup 2, n=20) ise; güç doğum şekillenen keçiler ve yavruları oluşturdu. Her iki çalışma gruplarındaki keçilerden ve oğlaklardan doğum sonrası oksidatif stres (total tiyol, native tiyol) değerlendirmelerinde kullanılmak üzere kan örneği alınıp serumu çıkarıldı. Elde edilen veriler Independent samples t-test ile analiz edildi. Ölçümler arası ilişkileri belirlemede ise Pearson



korelasyon katsayıları hesaplandı. Buna göre; oğlakların ve keçilerin total tiyol, native tiyol düzeylerinde doğum şekline göre istatistiksel olarak anlamlı bir farklılık gözlenerek grup 1’de daha yüksek bulundu ( $p<0,05$ ). Grup 1’deki oğlaklarda; total tiyol-native tiyol değeri arasında anlamlı bir ilişki bulundu ( $p<0,05$ ). Bu ilişkinin, %46,7’lik pozitif yönlü olduğu görüldü. Yani, total tiyol arttıkça native tiyol değeri de artmaktadır. Diğer gruplardaki oğlak ve keçilerde yapılan korelasyon ölçümleri arasında anlamlı bir ilişki kaydedilmedi ( $p>0,05$ ). Sonuç olarak, güç doğum grubunda hem keçi hem de oğlaklarda normal doğum grubuna göre total tiyol ve native tiyol düzeylerinde önemli farklılıklar bulunmuştur. Oksidatif stresin belirteci olan bu parametrelerdeki farklılığın bilinmesi ile zamanında alınacak önlemlerle daha sağlıklı ve daha az yavru kaybının olabileceği düşünülmüştür.

**Anahtar kelimeler:** Keçi, oğlak, total tiyol, native tiyol, güç doğum, normal doğum



**MAY CHICKEN CORONAVIRUS MUTATE INTO COVID-19-LIKE VIRUS?**

**Shekhmous H. Hussen<sup>1</sup>, Sherzad M. Hussein<sup>1</sup>, Sarbast I. Mustafa<sup>1</sup>, Renas H. Issa<sup>1</sup> and  
Mwafaq S. Berwary<sup>1</sup>**

*<sup>1</sup>Department of Animal Production, University of Duhok, Duhok, 42001, Kurdistan Region,  
Iraq*

**Abstract**

The high mutation rates of the chicken IBV cause economic threats to the poultry industry, but the most danger situation is the likelihood of changing its sequence into COVID-19- like virus. The aim of this study was to investigate the possibility of genetic mutation of IBV to COVID-19 and its probable negative impact on the human being. Thus, the sequences of Spike Glycoprotein (S1) genes of both IBV and COVID-19 were aligned, analyzed and predicted in order to calculate the probability changes of the S1 sequences. The results showed that in case of independent function of each cluster of S1 sequences, the potential rate in the sequences of IBV to be mutated into COVID-19-like virus was equal to  $1.87E-96$ . However, because the probability tendency for some clusters was low or equal to zero, it is unattainable to totally mutate the chicken IBV into COVID-19 sequence. Furthermore, in case of the related function clusters, the probability of assumed annual mutation to make IBV infectious for human may reach up to around 50 % after about 260 years. As conclusion, the mutating of chickens coronavirus into COVID-19-like virus is not impossible. As implication, the infection possibility by future chickens' coronavirus is needed more time to be real pandemic for human.

**Key words:** Coronavirus, Chicken IBV, Mutation, COVID-19, Statistical prediction.



## PULMONER DARLIĞININ İNSAN VE HAYVANLARDA GÖRÜLME SIKLIĞININ EKOKARDİYOGRAFI İLE TESPİTİ

### DETERMINATION OF THE FREQUENCY OF PULMONARY STRAIN IN HUMAN AND ANIMALS BY ECHOCARDIOGRAPHY

**Dr. Öğretim Görevlisi; Melahat TOKER**  
**Prof. Dr. Mehmet İRİADAM**

*Başkent Üniversitesi, Sağlık Bilimleri Fakültesi, Fizyoloji Anabilim Dalı, 06100, Ankara,  
Türkiye.*

*Harran Üniversitesi Veteriner Fakültesi Fizyoloji Anabilim Dalı Eyyübiye Yerleşkesi, Eyyübiye,  
Şanlıurfa.*

ORCID: 0000-0001-5442-4309., 0000-0002-9694-6014

#### Özet

**Amaç;** Pulmoner sağ ventrikül ile pulmoner arter arasında bulunan bir kapaktır. Pulmoner kapak darlığı (PD), normalde tamamen açılarak kanın sağ ventrikülden pulmoner artere geçişine izin veren pulmoner kapağın, çeşitli nedenlerle daralarak bu geçişe engel oluşturmaktadır. Çalışmamızda insanlarda ve hayvanlarda kapakta darlığın görülme sıklığı paylaşılmaktadır.

**Yöntem;** Çalışmamızda 4 (dört) hayvan, 15(onbeş) insanda pulmoner darlığında, İki boyutlu, PW Doppler ve CW Doppler ekokardiyografi yapılarak sonuçlar her iki grupta karşılaştırıldı.

**Bulgular;** Her iki hasta grubunda da iki boyutlu ekokardiyografi yapıldı. Hayvanlarda renkli Doppler Ekokardiyografi ile pulmoner yetmezlik akımı ile darlık örnekleri alındı. İnsanlarda iki boyutlu ekokardiyografi ile bakılan TAPSE, PW Doppler ekokardiyografi ile bakılan triküspit E ve A dalgası, E/A oranı, ET ve EDZ ‘nin oranlarına bakıldı.

**Sonuç;** İnsanlarda ve hayvanlarda görülen pulmoner kapak yetmezlik ve darlık konjenital olarak karşımıza çıkmaktadır.

**Anahtar Kelimeler;** pulmoner darlık, Doppler ekokardiyografi, insan ve hayvan

#### Abstract

**Goal;** The pulmonary valve is located between the right ventricle and the pulmonary artery. Pulmonary valve stenosis (PD) is the narrowing of the pulmonary valve, which normally opens completely and allows the passage of blood from the right ventricle to the pulmonary artery, and obstructs this passage for various reasons. In our study, the incidence of valve stenosis in humans and animals is to be shared.

**Method;** In our study, in 4 (four) animals and 15 (fifteen) people with pulmonary stenosis, two-dimensional, PW Doppler and CW Doppler echocardiography were performed and the results were compared in both groups.

**Results;** Two-dimensional echocardiography was performed in both patient groups. Pulmonary insufficiency flow and stenosis samples were obtained by color Doppler Echocardiography in animals. In humans, the ratios of TAPSE with two-dimensional echocardiography, tricuspid E and A waves, E/A ratio, ET and EDZ with PW Doppler echocardiography were evaluated.

**Result;** Pulmonary valve insufficiency and stenosis seen in humans and animals appear as congenital.

**Keyword;** pulmonary stenosis, Doppler echocardiography, human and animal



## FEATURES OF THE MIELINIZATION IN DIFFERENT PARTS OF THE OCULOMOTOR NERVE

Huseynova Gulgiz Agagasan<sup>1</sup>, Nasirova Zarifa Jahangir<sup>2</sup>

*Department of Human Anatomy and Medical Terminology, Azerbaijan Medical University, Baku, Azerbaijan*

### Abstract

With aim studying the structural features of the prenatal myelination on the somatic and vegetative parasympatic nerves have been investigated: the oculomotor nerve in somatic part – in the superior radix; in vegetative part – in the preganglionic parasympathetic fibers. Nerves are studied at 3-4-month fetus in the prenatal ontogenesis. Somatic nerve fibers, the innervating skeletal muscles of oculus are exposed to more accelerated myelination, than the parasympatic fibers supplying smooth muscle nerve of oculus. The motor root of the ciliary ganglion as the parasympathetic nerve myelination lags behind that of the somatic nerves by prenatal ontogenesis period. Nerve fibers myelinate at different times and at different speeds. In addition, the quantity, thickness of nerve fibers, axons and myelin sheaths more in somatic part oculomotor nerve. This process is more common in both the prenatal and early postnatal periods. At early stages of myelination are noted the hanging orientation of internal and external mesaxons. In process of increase in amount of nerve fibers in group's diameter of an axon decreases. In a prenatal ontogenesis between thickness of a myelin sheath and diameter of the axon, there is a rectilinear correlative communication. In some cases, divergences from the general regularity are noted.

**Keywords:** oculomotor nerve, somatic fibers, vegetative fibers, myelin sheath, axon



## STUDY OF THE ADAPTATION TO WATER DEFICIT OF SOME HARD WHEAT VARIETIES: POTENTIAL INTEREST OF THESE VARIETIES FOR PRODUCTION IMPROVEMENT

SAGHOURI EL IDRISSE Imane<sup>1,2</sup>; KETTANI Rajae<sup>1</sup>; FERRAHI Moha<sup>1</sup>; BRHADDA Najiba<sup>2</sup>; ZIRI Rabea<sup>2</sup>

*1 Laboratory of physiology and genetic improvement of cereals, National Institute of Agronomic Research (INRA), Meknes, Morocco, crrameknes@inra.org.ma*

*2 Laboratory of Biodiversity and Natural Resources, Department of Biology, Faculty of Sciences, University of Ibn Tofail, University campus, BP 133, Kenitra, Morocco.*

### Abstract

Water Deficit is one of the major limiting factors in agricultural production. The objective of the study was to evaluate drought tolerance of 16 durum wheat advanced lines (*Triticum durum* Desf) using several agronomic and physiological traits. The experiment was carried out in the greenhouse at the Regional Agricultural Research Center (CRRRA) of Meknes. The effect of different treatments on physiological and agronomic responses was studied using a Randomized Complete Block Design (RCBD) with three replication. In the first trial, we studied the effect of different water regimes on the physiological responses of 16 durum wheat advanced lines through a comparative analysis. A significant decrease in leaf area, relative water content, chlorophyll content, and stomatal conductance was observed with an increase in leaf temperature. The second part we analyzed the impact of water stress on agronomic parameters. The results showed a very significant decrease in plant height, above-ground biomass and grain yield. Depending of the water stress level we observed a significant increase in root length in the different lines studied. The results revealed significant differences between lines and water regimes. The lines, V1 and V16 have showed a good osmotic adjustment, low stomatal sensitivity, and maintenance of turgidity under low water potential. Under water stress V1 and V16 have developed a more important root system compared to other lines. The results concerning the yield in terms of grains reveal that lines V1 and V16 were the most efficient showing the highest yields and a better biomass production compared to the other lines tested. Statistical analysis reveals the presence of a highly significant correlation between leaf area and Relative Water Content RWC ( $r=0,763^{**}$ ), leaf area and yield ( $r=0,676^{**}$ ), stomatal conductance and yield ( $r=0,594^{**}$ ). However, a highly significant negative correlation was found between leaf temperature and stomatal conductance ( $r=-0.453^{**}$ ).

**Keywords:** Water stress, tolerance, physiological traits, agronomic traits, relative water content, leaf area.



## INVESTIGATION OF PLASMA TOTAL HOMOCYSTEINE LEVELS IN ISCHEMIC STROKE PATIENTS AND PATIENT SUBGROUPS

Assist. Prof. Dr. Nevra Alkanli<sup>1\*</sup>, Assist. Prof. Dr. Alev Bakir<sup>2</sup>

<sup>1\*</sup>Haliç University, Faculty of Medicine, Department of Biophysics, Istanbul, Turkey

<sup>2</sup>Haliç University, Faculty of Medicine, Department of Biostatistics and Medical Informatics, Istanbul, Turkey

\* ORCID Number: 0000-0002-3745-8838

ORCID Number: 0000-0003-0664-5822

### Abstract

Ischemic stroke occurs focal or global as a result of obstruction of blood flow in any region of the brain. Ischemic stroke is classified by TOAST in five subgroups as large vessel disease, small vessel disease, cardioembolic, cryptogenic and other unclassified ischemic stroke. Homocysteine plays an important role in metabolic pathways of thiol compounds. Total homocysteine levels in blood plasma are classified into four groups. 5-15  $\mu\text{mol/L}$  values are considered as normal, 15-30  $\mu\text{mol/L}$  values are considered as middle, 30-100  $\mu\text{mol/L}$  values are considered as interval and above 100  $\mu\text{mol/L}$  values are considered as severe. Hyperhomocysteinemia may develop as a result of genetic disorders in metabolism, chronic diseases, vitamin deficiencies and nutritional disorders, individual differences, and various drugs. The aim of our study is to investigate plasma total homocysteine levels in ischemic stroke patients and ischemic stroke patient subgroups selected from the Thrace region population. Our study consists of ischemic stroke patient group and healthy control group. The patient group is classified into five subgroups. Peripheral venous bloods containing ethylenediaminetetraacetic acid of ischemic stroke patients and healthy control groups was centrifuged at 4000xg for 10 minutes. Plasma of centrifuged blood was separated and stored at  $-86^{\circ}\text{C}$ . Plasma total homocysteine levels were measured using the Immulite 2000XPi homocysteine kit for ischemic stroke patients and healthy control groups. Measurements of plasma total homocysteine levels were carried out in Trakya University Faculty of Medicine, Department of Biochemistry Central Laboratory. The significant difference was not determined in terms of plasma total homocysteine levels between ischemic stroke patients and control groups ( $p>0.05$ ). The significant difference was determined between ischemic stroke patient subgroups in terms of plasma total homocysteine levels ( $p<0.05$ ). The significant difference was not determined between the ischemic stroke patients and control groups in the comparison of normal, middle and interval homocysteine levels ( $p>0.05$ ). However, the significant difference was detected in the comparison of normal, middle and interval homocysteine levels in ischemic stroke patient subgroups ( $p<0.05$ ). Based on the results of our study, hyperhomocysteinemia is considered as an important risk factor for ischemic stroke subgroups and especially small vessel disease subgroup selected from the Thrace population and classified in subgroups.

**Keywords:** Cerebrovascular diseases, ischemic stroke, ischemic stroke subgroups, plasma total homocysteine levels, hyperhomocysteinemia



## AİLE DEĞERLERİNİN AŞI KABUL VE REDDİNE ETKİSİ

## THE EFFECT OF FAMILY VALUES ON VACCINATION ACCEPTANCE AND REJECTION

Ömer ABİÇ<sup>2\*\*</sup>, Doç. Dr. Rabia SOHBET<sup>1\*</sup><sup>\*</sup>1-Gaziantep Üniversitesi, Sağlık Bilimleri Enstitüsü, Hemşirelik Anabilim Dalı, Halk Sağlığı Hemşireliği Programı, Gaziantep, Türkiye<sup>\*\*</sup>2-Gaziantep Üniversitesi, Sağlık Bilimleri Enstitüsü, Hemşirelik Anabilim Dalı, Halk Sağlığı Hemşireliği Programı, Gaziantep, Türkiye<sup>\*</sup>1-Gaziantep University, Institute of Health Sciences, Department of Nursing, Public Health Nursing Program, Gaziantep, Turkey<sup>\*\*</sup>2-Gaziantep University, Institute of Health Sciences, Department of Nursing, Public Health Nursing Program, Gaziantep, Turkey<sup>\*1</sup>ORCID No: 0000-0002-1835-8479 <sup>1</sup><sup>\*\*2</sup>ORCID No:0000-0002-5276-57481<sup>2</sup>

## Özet

**Amaç:** Çalışma aşı kararsızlığına - aşı reddine götüren nedenlerin tespiti, aile değerlerinin aşı karışıklığına etkisini saptamak için yapılmıştır.

**Gereç ve Yöntem:** Gaziantep Cengiz Gökçek Kadın Doğum ve Çocuk Hastalıkları Poliklinikleri'ne başvuran 0-24 ay arası çocuğu olan, Türkçe bilen ebeveynle yüz yüze görüşme ile yapılmıştır. Çocuk polikliniklerine başvuran 8433 kişi evreni oluşturmuş çalışmaya katılmayı kabul eden 930 kişi örneklemi oluşturmuştur. Veriler literatürden yararlanılarak oluşturulan "Kişisel Bilgi Formu" ve "Aile Değerleri Ölçeği (ADÖ)" ile toplanmış, Verilerin değerlendirilmesinde SPSS 25.0 (Statistical Package for Social Science) paket programı kullanılmıştır. Bağımsız değişkenlerin karşılaştırılmasında x<sup>2</sup> testi kullanılmıştır.

**Bulgular:** Katılımcıların %78'inin memleketi Gaziantep'tir. Araştırmaya katılan annelerin %74,7'si ev hanımıdır. Katılımcıların %68'inin geliri gidere denktir. Katılımcılardan %87,4'ü aşı kartına sahipken, aşı kartı olmayanların oranı %12,6'dır. Katılımcıların %90,1'i aşığı gerekli bulup %61,8'i mikropkara karşı direnç kazandırdığını, %9,9'u aşının gereksiz olduğunu söylemiştir. Katılımcıların %89,9'u çocuklarına aşı yaptıırken %10,1'i yaptırmamaktadır. Katılımcıların %91,9'u aşılardan yan etkisi vardır, %8,1'i aşılardan yan etkisi yoktur demıştır.

Aşı yaptırmayan katılımcılar aşı yaptırmama nedeni olarak %5,7'si ise Aşısı yapılan hastalıklar zaten artık görünmüyor, %5,2'si Sağlık kurumları evime uzak, %4,4'ü Doğal bağışıklığı inanıyorum, %4,1'i Bebekler aşılama için küçük, %4,1'i Aşıya götüreceğ zamanım yok, %3,2'si Aşılar güvenli değil, %2,6'sı Dini inançlar, %1,7'si Aşılar otizme yol açar, %1'i Aşılar aşı firmalarını zengin etmek için yapıyor, %0,5'i Çocuğumun kısır olmasından korkuyorum ve %0,1'i Sağlık Personellerinin davranışlarından memnun değilim demıştır.

**Sonuç:** Aşılamayı yaptırmama nedenlerinden en önemlisi ebeveynlerin iş sahibi olmasından kaynaklı olarak aşı yaptırmaya zaman bulamaması olarak ortaya çıkmıştır ayrıca önemli bir kısmın aşılardan yan etkisi olduğuna inandığı ortaya çıkmıştır.

**Anahtar Kelimeler:** Aşı, Aşı Reddi, Aile, Aile Değerleri, Ebeveyn

## Abstract

**Objective:** The study was conducted to determine the reasons leading to vaccine hesitancy - vaccine rejection, and to determine the effect of family values on anti-vaccination.

**Materials and Methods:** The study was conducted with a face-to-face interview with a Turkish-speaking parent with a child aged 0-24 months who applied to Gaziantep Cengiz Gökçek Gynecology and Pediatrics Polyclinics. 8433 people who applied to pediatric outpatient clinics



formed the universe and 930 people who agreed to participate in the study formed the sample. The data were collected with the “Personal Information Form” and “Family Values Scale (FAS)” created using the literature, and the SPSS 25.0 (Statistical Package for Social Science) package program was used to evaluate the data. The  $\chi^2$  test was used to compare the independent variables.

**Results:** The hometown of 78% of the participants is Gaziantep. 74.7% of the mothers participating in the study are housewives. The income of 68% of the participants is equal to the expenses. While 87.4% of the participants have a vaccination card, the rate of those who do not have a vaccination card is 12.6%. 90.1% of the participants found the vaccine necessary, 61.8% said it gave resistance to microbes, and 9.9% said that the vaccine was unnecessary. While 89.9% of the participants have their children vaccinated, 10.1% do not. 91.9% of the participants said that vaccines have side effects, 8.1% said that vaccines have no side effects.

5.7% of the participants who did not get vaccinated as the reason for not getting vaccinated Vaccinated diseases are not seen anymore, 5.2% Health institutions are far from my home, 4.4% I believe in natural immunity, 4.1% Babies vaccination too young, 4.1% I do not have time to vaccinate, 3.2% Vaccines are not safe, 2.6% Religious beliefs, 1.7% Vaccines cause autism, 1% Vaccines vaccines It is done to enrich their companies, 0.5% said I am afraid of my child being infertile, and 0.1% said they are not satisfied with the behavior of the Health Personnel.

**Conclusion:** The most important reason for not vaccinating was that the parents could not find time to get vaccinated due to their employment.

**Keywords:** Vaccine, Vaccine Rejection, Family, Family Values, Parent



## VERTICAL AND HORIZONTAL DYNAMIC IMPEDANCES OF SUCTION FOUNDATIONS

Bounequet Soumia<sup>1</sup>, Messioud Salah<sup>2</sup>

<sup>1</sup> Université de Jijel/LGCE Département de Génie Civil et Hydraulique, Jijel, Algérien

<sup>2</sup> Université de Jijel/LGCE Département de Génie Civil et Hydraulique, Jijel, Algérien

### Abstract

In this work a three-dimensional numerical model of a finite element with absorbing boundaries is proposed to study the dynamic response of suction foundations, the effect of soil-structure interaction on the dynamic response of the soil-foundation system was considered. The adopted formulation is based on the sub-structuring method. Suction foundations buried in soft soils are considered. The constitutive elements of the system are modeled using volumetric elements and shell elements. Absorbing boundaries are implanted in order to avoid the reflection of the waves. The obtained results are presented in terms of vertical and horizontal impedances.

**Keywords:** Suction caisson Foundation, Dynamic Impedance, Soil Structure Interaction, Numerical Model, Absorbing Boundary.



## PHYSIOTHERAPY AND REHABILITATION DEPARTMENT STUDENTS AND NATIONAL COLOR CODING SYSTEM IN HEALTH CARE

### FİZİYOTERAPİ VE REHABİLİTASYON BÖLÜMÜ ÖĞRENCİLERİ VE SAĞLIKTAKI ULUSAL RENKLİ KODLAR

Hayriye Kul Karaali<sup>1</sup>, Duygu Ilgın<sup>1</sup>, Özlem Özcan<sup>1\*</sup>

<sup>1</sup>Manisa Celal Bayar University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Manisa, Turkey

**Objective:** Our study was carried out to examine the awareness of the students of the Department of Physiotherapy and Rehabilitation on national color-coding system in health care (NCSHC).

**Materials and Methods:** Volunteers from the students filled out the online data registration form. The data registration form included information about demographic data and NCSHC including resources for obtaining information.

**Results:** A total of 197 students, 161 women (81.7%) and 36 men (18.3%), with a mean age of 20.84±1.50 years, participated in the study. 19.8% of the students stated that they were knowledgeable about NCSHC, and valued their level of knowledge as a mean score of 5.87±1.69. The most frequently referenced sources of information were social media (25.64%) and search engines on the internet (25.64%). Of the codes, 45.2% correctly answered the Code Blue, 67.5% the Pink Code, 61.4% the White Code and 59.4% the Red Code. The correct answer rates from phone numbers are as follows: 63.5% for 1111, 65.5% for 2222, 47.2% for 3333. Students gave 7.79±2.48 points to their need for education on this subject.

**Conclusion:** Although the correct answer rate of the students was not low, they stated that they did not know about NCSHC and they needed training. For this reason, we think that it is necessary to provide training for physiotherapist candidates in the future.

**Keywords:** Color coding; Physiotherapy; Student

**Amaç:** Çalışmamız, Fizyoterapi ve Rehabilitasyon Bölümü öğrencilerinin sağlıktaki ulusal renkli kodlar (SURK) konusundaki farkındalığının incelenmesi amacıyla gerçekleştirildi.

**Materyal ve Metod:** Öğrencilerden gönüllü olanlar online veri kayıt formunu doldurdular. Veri kayıt formu; demografik veriler ve SURK hakkındaki bilgileri ve bilgi edinme kaynaklarını içermekteydi.

**Bulgular:** Çalışmaya 161'i kadın (%81.7) ve 36'sı erkek (%18.3) yaş ortalaması 20.84±1.50 olan toplam 197 öğrenci katıldı. Öğrencilerin %19.8'i SURK konusunda bilgisi olduğunu belirttiler. Bilgi sahibi olanlar, bilgi düzeylerine 5.87±1.69 ortalama puan verdiler. Bilgi edinme kaynaklarının en sık başvurulanları sosyal medya (%25.64) ve internetteki arama motorları (%25.64) idi. Kodlardan Mavi Kod'u % 45.2'si, Pembe Kod'u % 67.5'i, Beyaz Kod'u % 61.4'ü, Kırmızı Kod'u % 59.4'ü doğru cevapladı. Telefon numaralarından doğru cevaplama oranları 1111'i % 63.5'i, 2222'yi % 65.5'i, 3333'ü % 47.2'si doğru cevapladı. Öğrenciler bu konuda eğitim alma ihtiyaçlarına 7.79±2.48 puan verdi.

**Sonuç:** Öğrencilerin doğru cevap verme oranları her ne kadar düşük olmasa da SURK hakkında bilgi sahibi olmadıklarını ve eğitim alma ihtiyacı olduklarını belirttiler. Bu nedenle ilerleyen dönemlerde fizyoterapist adaylarına bu konuda eğitim vermenin gerekli olduğunu düşünmekteyiz.

**Anahtar Kelime:** Renkli kodlar; Fizyoterapi; Öğrenci



**TRUNCUS THYROCERVICALIS'İN MORFOMETRİK DEĞERLENDİRİLMESİ****MORPHOMETRIC EVALUATION OF THYROCERVICAL TRUNK****Özge COŞKUN<sup>1\*</sup>, Özcan GAYRETLİ<sup>1</sup>, Osman COŞKUN<sup>1</sup>, Buse Naz ÇANDIR<sup>1</sup>, Ayşin KALE<sup>1</sup>****Adnan ÖZTÜRK<sup>1</sup>**<sup>1</sup>İstanbul Üniversitesi, İstanbul Tıp Fakültesi Anatomi Anabilim Dalı, İstanbul, Türkiye

Özge COŞKUN\*; Yüksek Lisans Mezunu, ORCID:0000-0002-6721-9029,

Özcan GAYRETLİ; Uzman Dr., ORCID: 0000-0001-7958-3170,

Osman COŞKUN, Uzman Dr., ORCID: 0000-0002-0337-4927

Buse Naz ÇANDIR; Doktora Öğrencisi, ORCID: 0000-0003-3138-8098,

Ayşin KALE, Prof. Dr., ORCID: 0000-0002-2305-420X

Adnan ÖZTÜRK, Prof. Dr., ORCID: 0000-0002-5819-0543 E-mail:

**Özet**

Truncus thyrocervicalis (TT), arteria subclavia'nın kalın ve kısa bir dalıdır. TT seyri boyunca farinks, larinks, trakea, tiroid bezi ve periskapular bölgeyi besleyen önemli dallar verir. Bu arterler genellikle plastik ve rekonstrüktif cerrahide flep olarak ve koroner arter baypas cerrahisinde greft olarak kullanılır. Literatür incelendiğinde TT ile ilgili çalışmaların daha çok morfolojik değerlendirmelerle ilgili olduğu görülmüştür. Bu nedenle TT'nin morfometrisinin detaylı olarak incelenmesi ve ayrıca elde edilen sonuçların klinik ilişkilerinin ortaya konulması amaçlanmıştır. Bu çalışma İstanbul Tıp Fakültesi Anatomi Anabilim Dalı'nda bulunan, formaldehit-fenol-etilalkol- gliserin ve su karışımı ile fikse edilmiş olan 20 insan kadavrası üzerinde yapıldı. Uygun disseksiyonlarla arteria subclavia ve dalları ortaya konduktan sonra öncelikle TT'nin orijin yerinin, incisura jugularis'ten geçen vertikal eksene dik uzaklığı ile musculus scalenus anterior'un medial kenarına olan dik mesafesi ölçüldü. Daha TT'nin orijin yerinin arteria subclavia'nın ilk dalının orijin yeri arasındaki en kısa mesafesi ile TT'nin orijin yeri ile kendi ilk dalı arasındaki mesafe, digital kaliper yardımıyla ölçülerek kaydedildi. Ölçülen morfometrik verilere tanımlayıcı istatistikler uygulandı. Elde edilen veriler hem sağ/sol taraf hem de cinsiyete göre analiz edildi. Sağ tarafta TT'nin orijin yerinin, incisura jugularis'inden geçen vertikal eksene dik uzaklığı değerinin cinsiyete göre karşılaştırılmasında istatistiksel olarak anlamlı fark gözlemlendi ( $p=0,030$ ). TT'nin orijin yeri ile arteria subclavia'nın ilk dalının orijin yeri arasındaki en kısa mesafesinin, sağ ve sol taraf karşılaştırılmasında istatistiksel olarak anlamlı fark gözlemlendi ( $p\leq 0,001$ ). TT ve dallarının cerrahide flep uygulamalarında kullanılması veya girişimsel radyolojik uygulamalarda yol gösterici olması, TT'nin morfolojik ve morfometrik bilgilerine klinik tıp alanında oldukça ihtiyaç duyulduğunu göstermektedir.

**Anahtar Kelimeler:** Truncus thyrocervicalis, arteria subclavia, morfometri, kadavra



## ANATOMICAL VARIANTS OF THE INCISIAL FORAMEN

**Kamala Sh. Babazade, Aghasamid B. Isayev**

Azerbaijan medical University, Department of Human Anatomy and Medical terminology, Baku,  
Azerbaijan

Authors e-mail and mobile phone numbers: Kamala Sh. Babazade, e-mail:  
Aghasamid B. Isayev

### Abstract

The aim of the study was to study the anatomical variants of the incisial foramen in different age periods and their relationship with the shapes of the skull.

For this purpose, a cranioscopic examination of the incisial foramen was performed on 120 human skulls.

It was found that the incisial foramen has a drop-shaped (50.0%), oval (20.8%), rounded (25.0%) and obliterated shape with age (4,2%).

It was found that the drop-shaped predominates in all forms of the skull (42.9-53.3%). The round form was found in 20.0% of dolichocranes, 25.0% of mesocranes, and 28.6% of brachicranes. The oval shape was observed in 28.0%, 16.7% and 22.9%, respectively. The drop forms was observed in leptens 59.5%, mesens 45.0%, euren 47.8% and was predominant. The obliterated form of the incisial foramen was not found in the leptens.

In the drop shaped and round shapes of the incisial foramen, the incisial canal sometimes opens into the oral cavity with 2 and 3 or even 4 foramina.

Thus, although the drop shape predominated in all forms of the skull, no concrete correlation was found between the shapes of the skull and the shapes of the incisial foramen.

**Keywords:** cranioscopy, incisial foramen, skull, the form



## ROLE OF ADMINISTRATION OF SEROTONIN-MODULATING ANTICONSOLIDATION PROTEIN IN MITIGATION OF PRO-OXIDATIVE EFFECTS OF HIGH DOSES OF $\gamma$ -IRRADIATION

Afaq Nurullayeva<sup>1</sup>, Irana Galandarli<sup>2</sup>

<sup>1,2</sup> Azerbaijan National Academy of Sciences, Institute of Physiology named after Academician Abdulla Garayev, Baku, Azerbaijan.

### Abstract

Human body is exposed to heavy effects of various anthropogenic factors. Both chemical and physical factors lead to mutagenic and prooxidative changes in cells of all tissues of living organisms. Among these factors, ionizing radiation is particularly noteworthy. The particular significance of ionizing radiation is related to its heavy, irreversible and destructive effects in organisms. The main adverse effects of radiation on the living organisms are related directly to upregulation of mutation level in somatic and sexual cells. So, from this standpoint one can conclude that the main pinpoint of effective radioprotection should be based on preventing and taking off mutagenic changes induced by radiation effects on the tissues of animals and humans. On the other hand the significant impact of different kinds of unfavourable environmental factors on the activity of serotonergic system have been shown on numerous experimental models. Considering above mentioned reasons, the investigation of high resistance organisms to  $\gamma$ -irradiation through upregulation of serotonergic system is one of the necessary requirements of the present time. For this aim in our experiments activation of serotonergic system was achieved by intraperitoneally administration of serotonin-modulating anticonsolidation protein into the animals. This protein is in linear relation with serotonin level and it was purified from the cow brains with application of two-step purification procedure as had been described earlier. The studies were conducted on male albino rats of 160-200 g of body mass. They were exposed to  $\gamma$ -irradiation at various of dose.

In the 1<sup>st</sup> series of studies the effects of  $\gamma$ -irradiation at a dose of 4 Gy on the levels of SMAP, heat shock protein with Mr 70 kDa (HSP70) and cytochrome P-450 in the bone marrow and liver was evaluated by the indirect ELISA-test with application of antibodies to these proteins on the polystyrene plates. It was shown that  $\gamma$ -irradiation at 4 Gy brings to downregulation of HSP70 in the bone marrow and liver, while in the liver noticeable downregulation of only cytochrome P-450 was observed.

In the next series of studies it was shown that under  $\gamma$ -irradiation at a dose 8 Gy significant upregulation of malonaldehyde (MDA) was noticed in the control animals, injected with heat-inactivated SMAP, while in the experimental animals, injected with active SMAP, under the effect of the same dose of  $\gamma$ -irradiation MDA level declined and was similar to the values of the intact group ( $p < 0.05$ ).

**Keywords:** serotonin-modulating anticonsolidation protein,  $\gamma$ -irradiation, pathologies



## STUDY OF THE REHABILITATION ROLE OF SELENIUM-CONTAINING CURCUMA AND SAFFRON PREPARATIONS IN THE EXPERIMENTAL MODEL OF ALZHEIMER'S DISEASE

Irana Galandarli<sup>1</sup>, Afag Nurullayeva<sup>2</sup>

*<sup>1,2</sup>Azerbaijan National Academy of Sciences, Institute of Physiology named after Academician Abdulla Garayev, Baku, Azerbaijan.*

### Abstract

In order to provide protector mechanisms, as well as to prevent the development of Alzheimer's disease (AD) and restoration of lost cognitive functions, the role of selenium-containing extracts of curcuma and saffron in these processes has been studied. Indicated preparations have been used to investigate their effectiveness on the AD model on experimental animals. Protective and rehabilitative properties of saffron and curcuma were revealed in the present investigation. The influence of saffron extract and curcuma on the cognitive functions of the albino rats, whose spatial memory was formed in the Morris water maze, was studied. Experiments were carried out on 50 rats that had a clear spatial memory (platform searching time was reduced to 5-14 s). Bilateral surgical bulbectomy, used as AD forming method, leads to permanent impairment of spatial memory and cognitive processes 3 months after surgery. This was evidenced by a sharp latency increase of searching for an invisible platform up to 120-180 s (these values were characteristic of inexperienced naive animals before learning sessions). It should be emphasized that, rotation and catalepsy was observed at some AD analogue rats at the time of launching into the Morris water maze, which stopped during further swimming. After the elaboration of the AD model, the curcuma (250 mg/kg) was done daily. The rehabilitation effect of curcuma was characterized by a sharp decrease in escape latency: all experimental animals found the invisible platform location within 3-8 s. It was impossible to form AD in the Saffron extract administered rats before surgery operation. This fact indicates the protective effect of saffron. To conclude, curcuma stimulated neurogenesis through the expression of the neurotrophic factor, resulting in the restoration of lost memory and cognitive function was observed.

Realizing the molecular mechanism of involvement of the selenium-containing plant extracts (curcuma and saffron), which have anti-inflammatory and antioxidant properties, will contribute to their effective application in neurological and ophthalmological clinics for both protective and rehabilitation purposes, as well as for preclinical diagnosis, prevention and suppression of the development of various neurodegenerative diseases, including AD.

**Keywords:** Alzheimer's Disease, bulbectomy, Morris water maze.



## EXAMINING THE EMPLOYABILITY OF GRADUATES SPECIALIZED IN COSMETOLOGY PROGRAMME

**Calviana Adeline Tadahogay Martin**

*Keningau Vocational College, Cosmetology Programme, Hospitality Department, Keningau, Sabah*

### **Abstract**

Malaysian education system has taken incredible measures in revolutionizing vocational discipline across all institutions particularly secondary education. However, there might be some drawbacks as many graduates work in industries that are not aligned with their vocational specialties and qualifications. This study aims to determine the credibility of cosmetology programme at Keningau Vocational College by gathering data from the graduates of the programme. This was essential in improving the quality of the programme in order to meet the changing demand of the beauty and health industry. The instruments used to gather the data related to graduates' employment are the analysis of the current data records as well as online interviews that will be conducted with a group of graduates. The findings of this study might help the researchers understand the gap in the cosmetology training and syllabus that requires revision in order to remain relevant.

**Keywords:** cosmetology, vocational, credibility



## IN VITRO ANTIOXIDANT PROPERTIES OF 2-(4-(2-HYDROXYBENZYLIDENEAMINO)BENZYLIDENEAMINO)BENZOIC ACID

MSc Zehra Kubra Yilmaz<sup>1\*</sup>, Prof. Dr. Belma Aslim<sup>2</sup>, Doç. Dr. Ozlem Ozdemir<sup>3</sup>

<sup>1</sup>*Gazi University, Faculty of Science, Department of Biology, 06500, Ankara, Turkey.*

<sup>2</sup>*Gazi University, Faculty of Science, Department of Biology, 06500, Ankara, Turkey.*

<sup>3</sup>*Gazi University, Faculty of Science, Department of Chemistry, 06500, Ankara, Turkey.*

ID: <https://orcid.org/0000-0003-4574-070X>

<https://orcid.org/0000-0002-0595-7237>

ID: <https://orcid.org/0000-0003-2748-9179>

### Abstract

Under physiological conditions, specific organelles of the cell produce reactive oxygen species (ROS) and free radicals. These radicals, which are produced above the antioxidant defense capacity of the body, can cause oxidative stress. Oxidative stress reasons serious damage in lipids, proteins and the DNA of bio-tissues, which leads to the progress of serious diseases. Thus, it is very significant to improve substances and/or complexes with higher antioxidant activity to prohibit the formation of ROS and free radicals and, accordingly, to treat diseases mediated by these radicals. In recent years, it has attracted great attention to determine and appraise synthetic antioxidants with high free radical scavenging capacity associated with various disorders. Because synthetic antioxidants are widely used in place of native antioxidants as they are influential and less expensive. In this study, the antioxidant activity of the newly synthesized asymmetric diimine Schiff base was determined by using DPPH (2,2-diphenyl-1-picrylhydrazyl) radical scavenging, ferrous ion chelation (FIC) activity and total antioxidant activity (Phosphomolybdenum assay) methods. The effective concentration (IC<sub>50</sub>) values were calculated for the Schiff base and standards. According to the results of DPPH radical scavenging, ferrous ion chelation and total antioxidant methods, Schiff base showed a well antioxidant activity. It was determined that Schiff base is reactive towards DPPH radicals (IC<sub>50</sub>, 180.0 µM) and especially Fe<sup>+2</sup> ions (IC<sub>50</sub>, 76.3 µM). It was also found that it actively reduces the Mo(VI) ion to the Mo(V) form (IC<sub>50</sub>, 121.5 µM). The our results indicate Schiff base, may be a fine candidate as a source of synthetic antioxidants and possibly strong drug.

**Keywords:** Free radicals; oxidative stress; antioxidant activity; DPPH; Schiff base.



## EMERGENCE OF BIO-INSPIRED POLYDOPAMINE AS A BIOMATERIAL

**Dr Lakshmi Nidhi Rao<sup>1\*</sup>, Dr Aditya Shetty<sup>2</sup>**

<sup>1</sup> *A.B.Shetty Memorial Institute of Dental sciences, Nitte Deemed to be University, Lecturer, Department of Conservative Dentistry and Endodontics, Mangalore, India.*

<sup>2</sup> *A.B.Shetty Memorial Institute of Dental sciences, Nitte Deemed to be University, Additional Professor, Department of Conservative Dentistry and Endodontics, Mangalore, India.*

### Abstract

Biological structures have evolved throughout the millennia. Nature has been proactive with continual improvement to fine-tune the material properties resulting in optimisation of the structure–function relationship. In continuance of this theme, the observation of the ability of mussels to adhere to various wet surfaces strong enough to withstand strong ocean currents has sparked interest and investigations into the role of Polydopamine (PDA). PDA was found to be crucial for the adhesion of mussels to wet surfaces and was used initially as a coating material. The use of PDA in various applications including biomedical is an excellent example of bioinspiration and the successful translation of effects observed in nature. Under oxidative conditions, dopamine polymerises to PDA. PDA is a versatile and organic material that exhibits unique mechanical properties and robust adhesion to diverse substrate materials in hydrated environment. It is an inert material structurally and has shown to be non-toxic to living matter. This makes it ideal to be used as a coating material. Due to its exquisite adhesion as observed in mussels, it has inspired the use of the material as molecular glue. Conformal polydopamine coatings confer unique chemical and physical properties to many substrate materials including metals, ceramics, polymers, and beyond. This has been found to help accentuate the existing properties of the coated material.

PDA is extremely malleable and provides a promising platform in the form of nanoparticle, nanocomposite or as a coating of existing materials. The additional PDA properties in biocompatibility, biodegradability, anti-microbial activity, bone regeneration and versatility make it a promising material which can be mapped into various fields of bio-medicine. In this review we focus upon key structural aspects and related properties of PDA and how they could potentially be leveraged as a material for many bio-medical and dental applications.

**Keywords:** Polydopamine, mussel-inspired, adhesion, bio-medicine



## PUBLISHING RATES OF ABSTRACTS PRESENTED AT THE AMERICAN ACADEMY OF FORENSIC SCIENCES MEETINGS IN 2011 AND 2016

Nurdan Sezgin<sup>1\*</sup>, Şükriye Karadayı<sup>2</sup>, Beytullah Karadayı<sup>3</sup>

<sup>1</sup>Asst. Prof., Kütahya Health Sciences University, Faculty of Engineering and Natural Sciences, Department of Forensic Sciences, , Kütahya, Turkey. [0000-0002-9850-5730](tel:0000-0002-9850-5730)

<sup>2</sup>Asst. Prof., Altınbaş University, Vocational School of Health Services, Department of Medical Laboratory Techniques, İstanbul, Turkey. [0000-0002-4253-9245](tel:0000-0002-4253-9245)

<sup>3</sup>Assoc. Prof., İstanbul University-Cerrahpaşa, Cerrahpaşa Medical Faculty, Department of Forensic Medicine, İstanbul, Turkey. [0000-0002-1728-0550](tel:0000-0002-1728-0550)

### Abstract

The results of scientific research are presented at national and international congress organized by professional organizations and an important atmosphere is created that provides information about current research knowledge. In this study, the publication rates of oral and poster presentations presented in the scientific congress of AAFS (American Academy of Forensic Sciences) which a prestigious organization in the field of forensic sciences, in 2011 and 2016, the years of publication, types of publications, the durations until publication, the contributing countries, the years of publication, and to determine the types of journals aimed level of contribution to international literature in this area. In this context, the abstracts presented at the AAFS congress held in 2011 and 2016 were reviewed retrospectively. Certain steps were followed to determine whether the papers were published after they were presented at the AAFS annual scientific congress. Web of Science (WOS), PubMed, Scopus, Science Direct, Google Scholar databases were searched in accordance with a certain procedure by using the title, first author and last author surnames and keywords. It was found that approximately 16% of the papers presented at the 2011 AAFS meeting and 24% of the papers presented at the 2016 AAFS meeting were converted into publications. Considering the conversion rates of the papers by section, the publication rates for the 2011 AAFS meeting vary between 4% (Questioned Documents) and 31% (Anthropology) on average, and between 5% (Questioned Documents) and 32% (Pathology/Biology) for the 2016 AAFS meeting. In both annual scientific meetings, it was determined that the publications were mostly published in the Journal of Forensic Sciences. Papers after the 2011 AAFS meeting were published in the first year at most, and in the second year after the 2016 AAFS meeting. Future studies should focus on the barriers to publishing papers presented in such prestigious organizations without losing value over time, and ways to assist the publication process.

**Keywords:** Forensic sciences, Bibliometry, Publication ratio, AAFS meeting abstracts.



## EVALUATION OF THE IMPORTANCE OF GRANULOSA CELLS AND CASPASE-3, TNF-IMMUNE ACTIVITY IN IVF FERTILIZATION SUCCESS

Işıl Sezen Ermiş<sup>1\*</sup>, İlhan Özdemir<sup>2</sup>, Engin DEVECİ<sup>3</sup>

<sup>1\*</sup>, Harran University Faculty of Medicine, Department of Obstetrics and Gynecology, Şanlıurfa,

<sup>2</sup> Atatürk University Faculty of Medicine, Department of Obstetrics and Gynecology, Erzurum,

<sup>3</sup> Dicle University Faculty of Medicine Histology and Embryology Department, Diyarbakır,

### Abstract

Granulosa cells (GCs) are important in the development of ovarian follicles and oocyte maturation. In this study, it has been suggested that signal pathways have an effect on follicle development in the density differentiation and functional properties of granulosa cells during in-vitro fertilization (IVF) of human oocytes. When we evaluated the findings we obtained in this study, the amount of Anti-Müllerian Hormone (AMH) in the blood and the diameter of approximately 20 granulosa cells taken from different areas in the follicle fluid and the cell nucleus diameters were measured, and degeneration scoring and Kaspas-3, TNF- $\alpha$  expressions were evaluated in the granulosa cells ( $p < 0.01$ ). In PCOS and infertile patients, Caspas-3 and TNF- $\alpha$  reactions were significantly increased in Granulosa cells compared to control group patients. In conclusion, in this study, it was thought that TNF- $\alpha$  reaction is a marker of cytokine activity in granulosa cells and may affect cell degeneration, considering that it may be an indicator of the effect of granulosa cells on the formation of quality eggs that can be fertilized.

**Keywords:** Granulosa cells, IVF, TNF- $\alpha$ , Caspas-3, Fertilization



## EVALUATION OF THE EFFECTS OF OXIDATIVE STRESS-INDUCED CHANGE IN OVARIAN GERM CELLS IN INFERTILITY

İlhan Özdemir<sup>1\*</sup>, Engin DEVECİ<sup>2</sup>, Cenap EKİNCİ<sup>3</sup>, Şamil ÖZTÜRK<sup>4</sup>

*1\*, Atatürk University Faculty of Medicine, Department of Obstetrics and Gynecology, Erzurum*

*2, Dicle University Faculty of Medicine Histology and Embryology  
Department, Diyarbakır, engindeveci64@gmail.com*

*3, Dicle University Faculty of Medicine Histology and Embryology Department, Diyarbakır,*

*4, Çanakkale Onsekiz Mart University, Vocational School of Health Services, Çanakkale,*

### Abstract

Free radicals are reactive oxygen radicals (ROS) formed during the production of energy by using oxygen from food as a result of aerobic respiration. Antioxidant enzymes inactivate ROS and protect cells from various damage. However, the inability of antioxidant enzymes to inactivate all ROS causes a significant increase in ROS levels. Oxidative stress is thought to cause the development of pathological events such as ischemia-reperfusion injury, phagocyte-dependent inflammatory damage and neurodegenerative diseases-aging. It is known that oxidative stress causes a number of biochemical and histological defects in the reproductive system. As a result of these defects, spermatogenesis and oogenesis may be adversely affected, and accordingly, infertility may occur. The negative effects of oxidative stress on the formation of germ cells in the ovary and how to eliminate the sources of oxidative stress and the effects of antioxidants on the reproductive system are investigated.

**Keywords:** Oxidative stress, oxygen radicals, ovary, oogenesis, infertility



## EVALUATION OF IL-10, CASPAS-6 EXPRESSION IN STEM VILLUS STRUCTURE IN THE CONNECTING ROOT IN NORMOTENSIVE AND PLACENTA PREVIA PATIENTS

Işıl Sezen Ermiş<sup>1\*</sup>, İlhan Özdemir<sup>2</sup>, Engin DEVECİ<sup>3</sup>

*1\*, Harran University Faculty of Medicine, Department of Obstetrics and Gynecology, Şanlıurfa*

*2 Atatürk University Faculty of Medicine, Department of Obstetrics and Gynecology, Erzurum,*

*3 Dicle University Faculty of Medicine Histology and Embryology Department, Diyarbakır,*

### Abstract

In our study, it is emphasized that the cytokine interleukin-10 (IL-10) has the potential to be an important immunosuppressant in response to many inflammatory events in patients diagnosed with placenta previa, and its effect on the development of the caspas-6 reaction in the root villi during the apoptotic process. If we refer to the findings obtained in this study; Significant increase in fibrinoid tissue in root villi, significant dilatation and congestion in blood vessels, hyperplasia in endothelial cells were observed. An increase in IL10-expression in inflammatory cells in syncytial areas around blood vessels, and Caspas-6 expression in syncytial knots and cytotrophoblast cells were observed to increase significantly. It is thought that placenta previa, which causes closure of the cervix, may cause an increase in inflammation in stem villus development and a significant negativity in fetal development, as it accelerates the apoptotic process due to the lack of oxygen after significant bleeding.

**Keywords:** Stem villus, Placenta Previa, IL-10, Caspase-6 Expression



# TÜRKİYE'DE ASKERİ HARCAMALAR VE EKONOMİK BÜYÜME: EŞBÜTÜNLEŞME VE NEDENSELLİK ANALİZİ

## MILITARY EXPENDITURES AND ECONOMIC GROWTH IN TURKEY: COINTEGRATION AND CAUSALITY ANALYSIS

**Banu HAS\***

**Sinan ÇINAR\*\***

*\*Ege Üniversitesi Sosyal Bilimler Enstitüsü İktisat Doktora Öğrencisi, ORCID NO: 0000-0001-7693-8490*

*\*\*Ege Üniversitesi Sosyal Bilimler Enstitüsü İktisat Doktora Öğrencisi, ORCID NO: 0000-0002-2756-5875*

### Özet

Askeri harcamalar ülkelerin dış tehditlere karşı ulusal güvenliğinin sağlanması, talep yaratıcı bir alan olması ve yüksek teknoloji sanayi kapasitesinin geliştirilmesi yönünden stratejik bir önem taşımaktadır. Toplam kamu harcamaları içinde askeri harcamalara yapılan yatırımın artması, küresel arenada askeri ve politik ilişkiler doğrultusunda da fayda sağlamaktadır. Keynesyen yaklaşım doğrultusunda, savunma harcamalarının çarpan etkisi aracılığıyla toplam çıktı düzeyinde artış yaratması da varsayılmaktadır. Bu kapsamda, askeri harcamaların ekonomik büyüme üzerinde pozitif dışsallıklar yaratabileceği göz önünde bulundurduğunda, bu alanda yapılan harcamalar kamu kesiminde önemli bir payı kapsamaktadır. Dolayısıyla gerçekleştirilen askeri harcamalar ülkelerin ekonomilerini etkilemektedir. Bu bağlamda askeri harcama ve ekonomik büyüme ilişkisini tespit etmek önem arz etmektedir. Çalışmanın amacı, askeri harcamaların ekonomik büyüme üzerindeki etkisini kırımları ve döviz kurunu da göz önünde bulundurarak 1975-2019 yılları arasında yıllık veriler yardımıyla tespit etmektir. Kullanılan yöntem yapısal kırılmalı eşbütünleşme yöntemidir. Bağımlı değişken ekonomik büyüme oranı bağımsız değişkenler nominal döviz kuru ve askeri harcamalardır. Ekonometrik analiz kapsamında kullanılan veriler, Dünya Bankası veri tabanı ve Türkiye Cumhuriyet Merkez Bankası – Elektronik Veri Dağıtım Sisteminden elde edilmiştir. Çalışmada, güncel verilerle kırılma tarihlerinin dikkate alınması ve askeri harcamaların ekonomik büyüme üzerine etkisinin döviz kuruyla birlikte analiz edilmesi yönlerinden literatüre katkı sağlanmaktadır. Yapılan analizlere göre, ekonomik büyüme, askeri harcamalar ve nominal döviz kurunun eşbütünleşik bir ilişkiye sahip olduğu sonucu elde edilmiştir. Bununla birlikte, döviz kurundan askeri harcamalara doğru %1 anlamlılık düzeyinde tek yönlü kuvvetli bir nedensellik ilişkisi mevcutken, askeri harcamalardan ekonomik büyümeye doğru ise %10'da tek yönlü bir nedensellik ilişkisinin bulunduğu tespit edilmiştir. Buna göre askeri harcamaların döviz kurundan etkilendiği ve askeri harcamaların da ekonomik büyümeyi etkilediği sonuçlarına ulaşılmıştır.

Anahtar Kelimeler: Ekonomik Büyüme, Askeri Harcamalar, Gregory Hansen Eşbütünleşme, Toda Yamamoto

### Abstract

Military expenditures have a strategic importance in terms of ensuring the national security of countries against external threats, being a demand-creating area and developing high-tech industrial capacity. The increase in the investment in military expenditures among the total public expenditures also provides benefits in the direction of military and political relations in the global arena. In line with the Keynesian approach, it is also assumed that military expenditures create an increase in the level of total output through the multiplier effect. In this context, considering that military expenditures can create positive externalities on economic growth, expenditures made in this field



include a significant share in the public sector. Therefore, the military expenditures affect the economies of the countries. Regarding this matter it is important to determine the relationship between military spending and economic growth. The aim of the study is to determine the impact of military spending on economic growth with the help of annual data between 1975-2019, taking into account the structural break and exchange rate. The method of cointegration with structural break was used in the study. In the study, the economic growth rate was considered as the dependent variable, while the nominal exchange rate and military expenditure were the independent variables. The data used within the scope of econometric analysis were obtained from the World Bank database and the Central Bank of the Republic of Turkey – Electronic Data Distribution System. The study contributes to the literature by way of breaking dates with current data and analyzing the effect of military expenditures on economic growth by taking into account the exchange rate. According to the analysis, economic growth, military spending and nominal exchange rate have a co-integrated relationship. However, while there is a strong one-way causality relationship at 1% significance level from the exchange rate to military expenditures, there exists a one-way causality relationship from military expenditures to economic growth at 10%. Accordingly, military spending is affected by the exchange rate and military spending also affects economic growth.

**Keywords:** Economic Growth, Military Spending, Gregory Hansen Cointegration, Toda Yamamoto  
**JEL CODES:** C01, C22



# CONSTRUCTION OF ECONOMETRIC MODEL BASED ON ECONOMIC INDICATORS AND FORECAST WITH THE BEST MODEL

## EN İYİ MODELLE EKONOMİK GÖSTERGELERE VE TAHMİNİ DAYALI EKONOMETRİK MODELİN İNŞAATI

**GULARA RAHIMOVA**

*Baku State University, Associate professor,  
ORCID NO: 0000-0003-3084-9091*

**NARMIN GULIYEVA**

*Baku State University, Master, ORCID NO: 0000-0002-3181-5523*

### Abstrakt

Econometric models are successfully applied at the micro and macro levels of the economy. Through these models, the theoretical problems of economics are tested on the basis of factual or empirical materials by the methods of mathematical statistics. The first task facing mathematical statistics is to group and collect data when there is a lot of it. The second task of mathematical statistics is to determine the methods of analysis of statistical data, depending on the purpose of the study. Mathematical statistical methods are widely used in solving a number of problems posed by science and technology. For example: in the correct organization of technological processes, more optimal planning of the economy, etc. It is no coincidence that the most modern of the scientific and methodological methods is the method of statistical and econometric analysis. Econometric analysis provides a quantitative analysis of the relationship between economic indicators using mathematical and statistical methods. Therefore, in the article, we conducted a micro-level analysis of the economy by the econometric method and forecasted the best model.

In general, econometrics differs from mathematical economics in that it can actually apply probability theory and statistical methods directly to economic processes. Therefore, the purpose of econometrics is to obtain empirical results from economic laws.

Issues of econometrics include the construction of economic models and the assessment of their parameters, the testing of hypotheses about the characteristics of economic indicators and the form of relationships between them. Econometric analysis is the basis of economic analysis and forecasting for the adoption of basic economic solutions.

Note that an arbitrary economic variable reflects the characteristics of any economic object and has a statistical nature. It is necessary to apply special methods for their analysis and processing.

Once the econometric model is established, it should be checked that the model coincides with the real economic indicators. There are two levels of analysis: theoretical and empirical.

At the theoretical level, we assume that all possible realizations of economic indicators are known, and on the basis of these realizations it is possible to theoretically determine the parameters of the model. At the empirical level, the meaning of the parameters of the model can be estimated based on the selected values of economic indicators.

The purpose of the assessment is to more accurately calculate the values of unknown parameters of economic indicators.

One of the key issues in econometric research is to analyse the relationships between variables. The functional dependence is given in the form of a precise formula, in which each value of a variable corresponds to a single fixed value, in which case the effect of random factors is not taken into account.

The relationship between variables in which the effects of random factors are taken into account is called statistical dependence. Therefore, the regression equation is the equation of statistical relations between the variables. The formula for the statistical relationship between two variables is called double regression, and the statistical relationship between several variables is called total regression. To build regression models in econometrics, it is necessary to know the basic concepts of regression



analysis, estimation by the least squares method, the basic rules for estimating the significance of regression coefficients in the obtained equation and finding a reliable interval. The application of regression analysis imposes certain requirements on the initial data:

- Statistical sample of objects should be functionally and structurally homogeneous;
- Factor variables must be measured fairly accurately and at the same time, these variables must be either independent or minimally dependent on each other.

Econometric models are characterized by 3 main features: identification, verification and specification. The specification is generally carried out with an empirical approach and consists of two stages: the construction of the points of the regression field and the graphical (visual) interpretation of the possible approximate curve.

During the preparation of the article, we have used the subject of analysis, identified the area of regression, given a graphical interpretation of the results of econometric analysis, and identified the type of best model for forecasting.

**Keywords :** Econometric models, Econometric Forecast, model accuracy level, Sampling theory.

## Özet

Ekonometrik modeller ekonominin mikro ve makro düzeylerinde başarıyla uygulanmaktadır. Bu modeller aracılığıyla, ekonominin teorik problemleri, matematiksel istatistik yöntemleriyle olgusal veya ampirik materyaller temelinde test edilir. Matematiksel istatistiğin karşılaştığı ilk görev, çok fazla olduğunda verileri gruplamak ve toplamaktır. Matematiksel istatistiğin ikinci görevi, çalışmanın amacına bağlı olarak istatistiksel verilerin analiz yöntemlerini belirlemektir. Matematiksel istatistiksel yöntemler, bilim ve teknolojinin ortaya koyduğu bir dizi problemin çözümünde yaygın olarak kullanılmaktadır. Örneğin: teknolojik süreçlerin doğru organizasyonunda, ekonominin daha optimal planlanmasında vb. Bilimsel ve metodolojik yöntemlerin en moderninin istatistiksel ve ekonometrik analiz yöntemi olması tesadüf değildir. Ekonometrik analiz, matematiksel ve istatistiksel yöntemler kullanarak ekonomik göstergeler arasındaki ilişkinin nicel bir analizini sağlar. Bu nedenle yazıda ekonometrik yöntemle ekonominin mikro düzeyde analizini yaptık ve en iyi modeli tahmin ettik.

Genel olarak, ekonometri, olasılık teorisini ve istatistiksel yöntemleri doğrudan ekonomik süreçlere uygulayabilmesi açısından matematiksel iktisattan farklıdır. Bu nedenle, ekonometrinin amacı ekonomik kanunlardan ampirik sonuçlar elde etmektir.

Ekonometri konuları arasında ekonomik modellerin oluşturulması ve parametrelerinin değerlendirilmesi, ekonomik göstergelerin özellikleri ve aralarındaki ilişkilerin şekli hakkındaki hipotezlerin test edilmesi yer alır. Ekonometrik analiz, temel ekonomik çözümlerin benimsenmesi için ekonomik analiz ve tahminin temelidir.

Keyfi bir ekonomik değişkenin, herhangi bir ekonomik nesnenin özelliklerini yansıttığını ve istatistiksel bir doğaya sahip olduğunu unutmayın. Analizleri ve işlenmeleri için özel yöntemler uygulamak gerekir.

Ekonometrik model oluşturulduktan sonra, modelin gerçek ekonomik göstergelere uyup uymadığı kontrol edilmelidir. İki analiz seviyesi vardır: teorik ve ampirik.

Teorik düzeyde, ekonomik göstergelerin tüm olası gerçekleştirmelerinin bilindiğini ve bu gerçekleştirmeler temelinde modelin parametrelerinin teorik olarak belirlenmesinin mümkün olduğunu varsayıyoruz. Ampirik düzeyde, model parametrelerinin anlamı, ekonomik göstergelerin seçilmiş değerleri temelinde değerlendirilebilir.

Değerlendirmenin amacı, ekonomik göstergelerin bilinmeyen parametrelerinin değerlerini daha doğru hesaplamaktır.



Ekonometrik arařtırmadaki temel konulardan biri, deęiřkenler arasındaki iliřkileri analiz etmektir. Fonksiyonel baęımlılık, bir deęiřkenin her bir deęerinin tek bir sabit deęere karřılık geldięi ve bu durumda rastgele faktörlerin etkisinin hesaba katılmadıęı kesin bir formül řeklinde verilir.

Rastgele faktörlerin etkilerinin hesaba katıldıęı deęiřkenler arasındaki iliřkiye istatistiksel baęımlılık denir. Bu nedenle, regresyon denklemi, deęiřkenler arasındaki istatistiksel iliřkilerin denklemidir. İki deęiřken arasındaki istatistiksel iliřkinin formülü çift regresyon olarak adlandırılır ve birkaç deęiřken arasındaki istatistiksel iliřkiye toplam regresyon denir. Ekonometride regresyon modelleri oluřturmak için, regresyon analizinin temel kavramlarını bilmek, en küçük kareler yöntemi ile tahmin etmek, elde edilen denklemdaki regresyon katsayılarının önemini tahmin etmek için temel kuralları bilmek ve güvenilir bir aralık bulmak gerekir. Regresyon analizinin uygulanması, ilk verilere belirli gereksinimleri getirir:

- nesnelerin istatistiksel örneęi işlevsel ve yapısal olarak homojen olmalıdır;
- Faktör deęiřkenleri oldukça doęru bir řekilde ölçülmeli ve aynı zamanda bu deęiřkenler ya baęımsız ya da minimum düzeyde baęımlı olmalıdır.

Ekonometrik modeller 3 ana özelliklerle karakterize edilir: tanımlama, doęrulama ve řartname. Spesifikasyon genellikle deneysel bir yaklařımla gerçekeřtirilir ve iki ařamadan oluřur: regresyon alanı noktalarının oluřturulması ve olası yaklařık eęrinin grafiksel (görsel) yorumu.

Makalenin hazırlanmasında analiz konusunu kullandık, regresyon alanını belirledik, ekonometrik analiz sonuçlarının grafiksel bir yorumunu yaptık ve tahmin için en iyi modelin türünü belirledik.

**Anahtar Kelimeler:** ekonometrik modeller, ekonometrik tahmin, model doęruluk seviyesi, örnekleme teorisi



## EXAMPLES OF REGRESSION AND CORRELATION ANALYSIS IN ECONOMETRIC STUDIES

### EKONOMETRİK ARAŞTIRMALARDA REGRESYON VE KORELASYON ANALİZİ ÖRNEKLERİ

**GULARA RAHIMOVA**

Baku State University, Associate professor

ORCID NO: 0000-0003-3084-9091

**NARMIN GULIYEVA**

Baku State University, Master, ORCID NO: 0000-0002-3181-5523

#### Abstract

The theoretical basis of econometrics is mathematical statistics and economic cybernetics. The aim of econometrics is to obtain point and interval forecasts of the functioning of economic systems. Therefore, the following basic principles of econometrics should be taken into account in the design of arbitrary econometric models.

- Basic principles of the theoretical model of econometrics;
- Criteria and principles of econometrics;
- Features of theoretical models of econometrics;
- Model evaluation based on information data;
- The aim of the observations is to identify the problem;
- Determining the efficiency of the model;
- Establishment and improvement of an alternative model;
- Carrying out numerous observations;
- Use of the model for forecasting and implementation of economic policy.

One of the most important prerequisites for econometric modeling is the randomness of events and experiments. The adequacy of the result obtained depends largely on the fulfillment of this condition. This condition is not a coincidence in the simplest sense. If a process or event occurs without external influences, regardless of its internal nature or regularities, then it is considered to be accidental. Each quantity is divided into two parts, fixed and random. Accidental part may be due to technical equipment errors in measurements and calculations, errors made by the human brain or eyesight. It has been proved in sampling theory that all the characteristics of the random part of a quantity apply to the quantity itself. The results of econometric modeling, including the principles and laws of sampling theory, can be used to assess people's performance in public life.

Based on what it was said, in this article we have looked at examples of the application of regression and correlation analysis in econometric modeling. The results of the analysis show that the main task of correlation analysis is to identify the relationship between the variables and evaluate its relationship density. To check for a linear relationship between variables, the correlation coefficient must first be checked. Regression analysis is an analysis method used to determine the shape of the relationship between two or more variables. Regression analysis is completed by performing steps such as selecting the model type, calculating the parameters, constructing the model, and assessing its adequacy and accuracy. The level of accuracy of the model characterizes the degree of inclination of the actual values of the dependent variable from the values obtained on regression models. Estimates such as average relative error, average absolute error, standard error are used to assess the level of accuracy of the model.

**Keywords:** Regression and correlation analysis, alternative models, model accuracy level, Sampling theory, econometric models



## Özet

Ekonometrinin teorik temeli matematiksel istatistik ve ekonomik sibernetiktir. Ekonometrinin amacı, ekonomik sistemlerin işleyişinin nokta ve aralık tahminlerini elde etmektir. Bu nedenle, keyfi ekonometrik modellerin tasarımında aşağıdaki temel ekonometri ilkeleri dikkate alınmalıdır.

- Ekonometrinin teorik modelinin temel ilkeleri;
- Ekonometri kriterleri ve ilkeleri;
- Ekonometri kuramsal modellerinin özellikleri;
- Bilgi verilerine dayalı model değerlendirmesi;
- Gözlemlerin amacı sorunu tanımlamaktır;
- Modelin verimliliğinin belirlenmesi;
- Alternatif bir modelin oluşturulması ve iyileştirilmesi;
- Çok sayıda gözlem yapmak;
- Modelin ekonomik politikanın öngörülmesi ve uygulanması için kullanılması.

Ekonometrik modellemede en önemli ön koşullardan biri, olayların ve deneylerin rastlantısallığıdır. Elde edilen sonucun yeterliliği büyük ölçüde bu koşulun yerine getirilmesine bağlıdır. Bu durum en basit anlamda bir tesadüf değildir. Bir süreç veya olay, iç yapısı veya düzenliliğine bakılmaksızın, dış etkiler olmadan meydana gelirse, o zaman bunun tesadüfi olduğu kabul edilir. Her miktar sabit ve rastgele olmak üzere iki kısma ayrılmıştır. Tesadüfi kısım, ölçüm ve hesaplamalardaki teknik ekipman hatalarından, insan beyni tarafından yapılan hatalardan veya görme yetisinden kaynaklanıyor olabilir. Örneklem teorisinde bir miktarın rastgele kısmının tüm özelliklerinin miktarın kendisine uygulandığı kanıtlanmıştır. Örneklem teorisinin ilkeleri ve yasaları dahil olmak üzere ekonometrik modellemenin sonuçları, insanların kamusal yaşamdaki performansını değerlendirmek için kullanılabilir.

Söylediklerimize dayanarak, bu makalede ekonometrik modellemede regresyon ve korelasyon analizinin uygulanmasına ilişkin örnekler baktık. Analizin sonuçları, korelasyon analizinin temel görevinin değişkenler arasındaki ilişkiyi belirlemek ve ilişki yoğunluğunu değerlendirmek olduğunu göstermektedir. Değişkenler arasında doğrusal bir ilişki olup olmadığını kontrol etmek için önce korelasyon katsayısını kontrol etmek gerekir. Regresyon analizi, iki veya daha fazla değişken arasındaki ilişkinin şeklini belirlemek için kullanılan bir analiz yöntemidir. Model tipinin seçilmesi, parametrelerin hesaplanması, modelin oluşturulması, yeterliliğinin ve doğruluğunun değerlendirilmesi gibi adımlar gerçekleştirilerek regresyon analizi tamamlanır. Modelin doğruluk seviyesi, bağımlı değişkenin gerçek değerlerinin regresyon modellerinde elde edilen değerlerden eğim derecesini karakterize eder. Modelin doğruluk düzeyini tahmin etmek için ortalama bağıl hata, ortalama mutlak hata, standart hata gibi tahminler kullanılır.

**Anahtar Kelimeler:** Regresyon ve korelasyon analizi, alternatif modeller, model doğruluk seviyesi, Örneklem teoris, ekonometrik modeller



## THE CONCEPT OF SOCIAL CONTRACT IN JOHN LOCKE'S POLITICAL PHILOSOPHY

Svetlana Slusarenco<sup>1</sup>, Veronica Pozneacova<sup>2</sup>

<sup>1</sup> *Moldova State University, Faculty of Law, Department of Public Law, Chisinau, Republic of Moldova*

<sup>2</sup> *Moldova State University, Faculty of Law, Chisinau, Republic of Moldova*

### Abstract

John Locke was the great thinker that finished the formation of the social contract theory. On the one hand, the philosopher's ideas represent the continuation of Thomas Hobbes theory. On the other hand, the originality of John Locke's doctrine manifests in the finality of his theory and in the analysis performed. John Locke is the founder of the liberal ideology of liberalism as a political regime. According to John Locke, the state appears as a result of the drafting of social contract by people. So, state is the creation of people's will. Based on these considerations, philosopher claimed that state should guarantee to people their fundamental rights, which were presented before the state's foundation. The importance of John Locke theory is manifested in the completion of the conceptual development of democratic ideology, which is the main philosophical base of the Great French Revolution, American Revolution, the revolutionary legislation of France, theories that followed these revolutions and modern constitutionalism. This article is a study dedicated to determining the specific aspects of the social contract theory in the background of the idea's history. In this context, we have outlined the following objectives: to identify the essence of the social contract theory, to analyze the concept of humans rights in the thinker's point of view, to determine the importance of the philosopher's ideas in the modern constitutionalism. As a result of this research, we aimed to determine the role of the theory of social contract in the constitutional law, in general, and John Locke's philosophy, in particular.

**Keywords:** state, humans rights, social contract, constitution, philosophy, revolution, democracy



**TÜRKİYE’DE VE DÜNYADA ÇALIŞAN HIRSIZLIĞINA BAKIŞ VE ÖNLEMENEYİ  
YÖNELİK ÇALIŞMALAR****OVERVIEW OF EMPLOYEE THEFT IN TURKEY AND IN THE WORLD AND STUDIES ON  
PREVENTION****Mehtap Aracı KAZICI***Nevşehir Hacı Bektaş Veli Üniversitesi, Gülşehir Sosyal Bilimler Meslek Yüksekokulu, İnsan  
Kaynakları Yönetimi Programı, Nevşehir, Türkiye.**Orcid ID: 0000000195318035***Özet**

İşyerlerinde olumsuz iş davranışı olarak değerlendirilen ama aynı zamanda da önlenabilir olduğu düşünülen çalışan hırsızlığı, iş dünyasının günümüzde sıklıkla karşı karşıya kaldığı ve yol açtığı maliyetler nedeni ile işletmeleri tehdit eden bir olgu olarak değerlendirilmektedir. Bu nedenle son zamanlarda psikologlar kadar sosyal bilimcilerin de ilgi alanı haline gelen çalışan hırsızlığının, yol açtığı maddi ve manevi kayıplar da göz önüne alındığında, işletme ve yönetim literatüründe daha fazla yer alması gerektiği düşüncesi yaygınlık kazanmaya başlamış durumdadır.

Çalışanın resmi çalışma zamanı içerisinde işletmenin malını veya parasını izinsiz alması veya transfer etmesi olarak tanımlanabilen çalışan hırsızlığını ortaya çıkaran nedenler çeşitlidir. Hırsızlığı gerçekleştiren taraf ve hırsızlık nedeniyle mağdur sıfatı kazanan taraf olmak üzere bahse konu olan iki taraf ele alındığında bu nedenler, çalışan kaynaklı ve işletme kaynaklı olmak üzere iki genel kategoriye ayrılabilir. Çalışan kaynaklı olarak kabul edilen psikolojik ve demografik nedenlerin literatürde sıklıkla incelendiği görülmekle beraber, bu çalışmada asıl amaçlanan, literatürde yeterince yer verilmeyen çalışma koşulları kaynaklı çalışan hırsızlıklarına işletmelerin bakış açısı ve aldıkları ya da almaları gereken tedbirler üzerine bir mevcut durum değerlendirmesi yapmaktır.

Bu doğrultuda mevcut araştırma, öncelikle işletmelerin karşılaştığı çalışan hırsızlığı sorununa ilişkin mevcut durumu Türkiye’den ve dünyadan çalışan hırsızlığı örnek ve istatistiklerini inceleyerek ortaya koymaktadır. Sonrasında, ulaşılan örnek ve istatistikleri, çalışma koşulları kaynaklı çalışan hırsızlığının önlenmesi çerçevesinde yorumlayarak, hem hali hazırda çeşitli işletmelerde uygulanmakta olan işletme tedbirlerinin neler olduğu hakkında bilgi vermeyi, hem de bu tedbirlerin ne yönde arttırılabileceği konusunda önerilerde bulunmayı amaçlamaktadır.

**Anahtar Kelimeler:** Çalışan hırsızlığı, İnsan kaynakları yönetimi, Çalışan hırsızlığının önlenmesi

**Abstract**

Employee theft, which is considered as a negative business behavior in workplaces but also thought to be preventable, is considered as a phenomenon that the business world frequently faces today and threatens businesses due to the costs it causes. For this reason, considering the material and moral losses caused by employee theft, which has recently become an area of interest for social scientists as well as psychologists, the idea that it should be included more in the business and management literature has started to become widespread.

There are various reasons for employee theft, which can be defined as the employee's taking or transferring the property or money of the business without permission during the official working time. Considering the two parties in question, the party that committed theft and the party that became the victim due to the theft, these reasons can be divided into two general categories as employee-related and business-related. Although it is seen that the psychological and demographic reasons



accepted as employee-related are frequently examined in the literature, the main purpose of this study is to make an assessment of the current situation on the point of view of the enterprises and the measures they have taken or should take on the employee theft caused by the working conditions that are not sufficiently included in the literature.

In this direction, the current research primarily reveals the current situation regarding the employee theft problem faced by businesses by examining the employee theft examples and statistics from Turkey and the world. Afterwards, by interpreting the examples and statistics obtained within the framework of preventing employee theft caused by working conditions, it aims to provide information about the operational measures currently being implemented in various businesses and to make suggestions on how these measures can be increased.

**Key Words:** Employee theft, Human resources management, Prevention of employee theft



## FAKTÖR YOĞUNLUĞUNA GÖRE JAPONYA’NIN ENDÜSTRİ-İÇİ TİCARET DÜZEYİNİN ÖLÇÜMÜ (1988-2020)

### MEASUREMENT OF JAPAN’S INTRA-INDUSTRY TRADE LEVEL ACCORDING TO FACTOR INTENSITY (1988-2020)

**Serdar ÖZÖZEN**

*Uludağ Üniversitesi, Sosyal Bilimler Enstitüsü, Uluslararası Gelişme ve Uluslararası İktisat, Bursa, Türkiye.*

ORCID ID: <https://orcid.org/0000-0001-5089-6069>

#### Özet

Endüstri-içi ticaret, aynı endüstriye ait malların hem ihraç hem de ithal edilmesi olarak tanımlanır. Endüstri-içi ticaret Grubel-Llyod endeksi yardımıyla ölçülmektedir. Endeks 0 ile 100 arasında değerler almaktadır. Literatürde, hesaplanan endeks değeri 50’nin üzerinde ise ilgili endüstride ticaretin endüstri-içi ticaret şeklinde, endeks değeri 50’nin altında ise ticaretin endüstriler-arası ticaret şeklinde gerçekleştiği kabul edilmektedir.

Çalışmanın amacı, faktör yoğunluğuna göre Japonya’nın endüstri-içi ticaret düzeyini ölçülmeştir. Bu kapsamda, 1988-2020 dönemi boyunca, Japonya’nın endüstri-içi ticaret düzeyi SITC 2 basamaklı veriler ve Grubel-Lloyd endeksi kullanılarak hesaplanmıştır. Endüstri-içi ticaret düzeyi beş farklı mal grubunda analiz edilmiştir. Beş farklı grup içinde hammadde yoğun mallar [SITC 0, 2 (hariç 26), 3 (hariç 35), 4, 56], emek yoğun mallar [SITC 26, 6 (hariç 62, 67 and 68), 8 (hariç 87 ve 88)], sermaye yoğun mallar [SITC 1, 35, 53, 55, 62, 67, 68, 78], kolay taklit edilen araştırmalı bazlı mallar [SITC 51, 52, 54, 58, 59, 75, 76] ve zor taklit edilen araştırma bazlı mallar [SITC 57, 7 (hariç 75, 76 ve 78), 87, 88] yer almaktadır.

Analiz sonucunda toplam 12 mal grubunda [SITC 26, 51, 52, 55, 57, 59, 6 (hariç 62, 67 ve 68), 68, 7 (hariç 75, 76 ve 78), 75, 87, 88] ticaretin endüstri-içi ticaret şeklinde olduğu gözlemlenmiştir. Zor taklit edilen araştırma bazlı malların tamamında ticaretin endüstri-içi ticaret şeklinde olduğu görülmüştür.

**Anahtar Kelimeler:** Japonya, Faktör Yoğunluğu, Endüstri-içi Ticaret, Grubel-Llyod Endeksi.

#### Abstract

Intra-industry trade is defined as both export and import of goods belonging to the same industry. Intra-industry is measured by using of the Grubel-Llyod index. The index takes values between 0 and 100. If the index value is greater than 50, it is acknowledged that the trade is in the form of intra-industry trade; if the index value is less than 50, the trade is in the form of inter-industry trade.

The aim of the study is to measure Japan's intra-industry trade level based on the factor intensity. Japan's intra-industry trade trade levels have been calculated by using 2 digit level of SITC data and Grubel-Lloyd index during the period of 1988-2020. The levels of intra-industry trade have been analyzed in five different groups. These are raw material-intensive goods [SITC 0, 2 (except for 26), 3 (except for 35), 4, 56], labor-intensive goods [SITC 26, 6 (except for 62, 67 and 68), 8 (for except 87 and 88)], capital-intensive goods [SITC 1, 35, 53, 55, 62, 67, 68, 78], easy to imitate research-based goods [SITC 51, 52, 54, 58, 59, 75, 76] and hard to imitate research-based goods [SITC 57, 7 (except for 75, 76 and 78), 87, 88] within 5 different groups.

As a result of the analysis, it has been observed that the trade is in the form of intra-industry trade in 12 product groups [SITC 26, 51, 52, 55, 57, 59, 6 (except for 62, 67 and 68), 68, 7 (except for 75, 76



and 78), 75, 87, 88]. It has been seen the trade is in the form of intra-industry in all of the hard to imitate research-based goods

**Key Words:** Japan, Factor Intensity, Intra-Industry Trade, Grubel-Lloyd Index.



## RETROSPECTIVE ECONOMIC ANALYSIS FOR THE DEVELOPMENT OF THE HORSE BREEDING INDUSTRY IN BULGARIA

**Polya YORDANOVA**

*University of Veliko Tarnovo "World of Cyril and Methodius", Bulgaria, Faculty of History,  
Assistant Professor, Ph.D.*

### **Abstract**

For the last almost 4000 years of human history, the horse has been an integral part of human life, livelihood and evolution. Horse breeding is a branch of animal husbandry that deals with the use and breeding of horses. In the process of development of horse breeding, three main types of horses are created: purebred, draft and heavy. More than 200 breeds and breed groups of horses are created inside the types. The beginning of the Bulgarian cultural horse breeding can be considered 1863-64, when for the first time purebred Arabian stallions were imported to the Bulgarian lands. The new social, economic and political conditions necessitated the import of horses of various breeds, with better qualities, mainly from Europe. Consequently, there is a need to organize large farms (stud farms) in which breeding animals can be placed under controlled conditions of breeding and rearing. This marks a new stage in the development of horse breeding in Bulgaria, which is related to the topical activity and the creation of horse farms and breeding herds. Breeding and improvement work at this time has not started chaotically, but purposefully, as a result of the implementation of a number of laws, decrees, decrees and others. The latest stage in the development of tribal horse breeding is the newly established National Association of Horse Breeding, which is represented locally by regional companies. The Horse Breeding Union, which was established in 1914, should be considered as part of the structure of the organization of tribal work. In one of the most beautiful parts of our country - the Eastern Rhodopes, for seven years a group of ecologists, nature lovers and volunteers have dedicated their lives to the cause of returning horses to nature and to fight for wildlife status. grasshopper, known as tarpan in the Bulgarian lands.

The direction in which horse breeding should move is the right one for now. Horse breeding should be in private hands and there should be more and more events to promote horses and equestrian sports. And the way in which tribal horse breeding is currently structured in Bulgaria gives us reason to think that it is right...

**Keywords:** horse, cultural, farms, organization, development, economic, nature



## **CHARACTERISTICS AND BEST PRACTICES OF ENTREPRENEURIAL MARKETING: LESSONS FOR YOUNG ENTREPRENEURS**

**Dr Muhammad Emad Al-Shaikh**

College of Business Administration, Imam Abdulrahman Bin Faisal University

### **Abstract**

This paper aims to share the experiences of guiding young entrepreneurs and startups for their entrepreneurial marketing initiative at a leading business incubator in the Middle East. The ideal target audience for this paper includes young entrepreneurs eager to launch their startups and preferably attending business incubation or acceleration programs. This paper starts with the characteristics of entrepreneurial marketing and offers differentiation with convention marketing concepts. Focus groups and interviews were held with incubation center staff and entrepreneurship mentors affiliated with business incubation centers. Finally, it provides various entrepreneurial marketing lessons for young entrepreneurs. These best practices were extracted from the literature and validated by the focus groups. These best practices are presented here as lessons and include; (1) 4Ps versus innovation. (2) Marketing Plan versus Marketing Model Canvas. (3) Customer orientation versus 'innovation orientation.' (4) 'Top-down' versus 'bottom-up' strategies. (5) Market Research versus Networking and Information gathering. (6) Moving from cost-based pricing to market-based pricing. (7) Moving from reactive pricing to proactive pricing. (8) Moving towards a higher risk pricing strategy for higher returns. (9) Conceiving innovative price structure. (10) Forming partnerships with distribution channels. (11) Multiple distribution channels. (12) Look for creative and untapped distribution channels. (13) Bring more product versions and variants. (14) Move from traditional advertising to interactive media advertising. (15) Find early adopters for new products or services.

**Keywords;** Entrepreneurial Marketing, Startup Marketing, Marketing, Entrepreneurship



## THE POSITION OF PUBLIC EXPENDITURES IN THE PROCESS OF ECONOMIC GROWTH: AN EVALUATION OF TURKEY

**Prof. Dr. Ahmet Niyazi ÖZKER<sup>1</sup>, Burcu CANPULAT<sup>2</sup>**

*<sup>1</sup>Bandirma Onyedi Eylul University, Faculty of Economics and Administrative Sciences, Public Finance Department 10200-TURKEY*

*ORCID ID: 0000-0001-5313-246X*

*<sup>2</sup>Master Student, Bandirma Onyedi Eylul University, Faculty of Economics and Administrative Sciences, Public Finance Department 10200-TURKEY*

*ORKID ID: 0000-0001-5446-6453*

### Abstract

This study aims to reveal the structural position of the macro effects of the public expenditures phenomenon with the impact of accelerating and multiplier in the economic growth processes and the significant impact on the target economic growth. It appears that the increased effect of public expenditures is generally higher than expected, especially in emerging economies, and it is observed that R&D expenditures have an important place in the process. In this context, it is seen that there is a positive correlation between the increase in public expenditures and the achievement of economic growth targets, and this effect stands out with the higher increase in social spending in underdeveloped and developing countries. This row is more significant in developed countries with higher factor incomes and R&D studies. Increases in public expenditures for Turkey, especially after the 2000s, entered a high-level increasing trend and occupied an important place as a proportion of GDP. On the other hand, these expenditure rates were tried to be financed with public finance balances corresponding to the proportional values of GDP. However, this process has also created the inevitable position of possible budget deficits due to increased public expenditures after the increased public expenditures. It is a globally accepted phenomenon that the motivating force of growth is the phenomenon of public expenditure as a whole. When this phenomenon is considered in comparison with OECD countries, it is understood that both the real values of public expenditures continue at an increasing level, and even in developed OECD countries, public expenditures do not return to their previous levels of continuing. In this respect, it is important for us to compare the rate of increase in public expenditures in Turkey with the economic growth targets and to interpret it at the global level at the level of OECD countries.

**Key Words:** Emerging Economies; GDP; OECD; Public Expenditures; Socio-Economics Policies.

**JEL Codes:** H11; H51; H52.



**ITIL TABANLI HİZMET MASASI SİSTEMLERİNDE, VERİMLİLİĞİ ARTIRICI  
YAKLAŞIMLAR ve ÖNCELİK BELİRLEME SİSTEMİ UYGULAMASI**  
EFFICIENCY INCREASING APPROACHES AND PRIORITY IDENTIFICATION SYSTEM  
IMPLEMENTATION IN ITIL-BASED SERVICE DESK SYSTEMS

**Mehmet Salih SANCAROĞLU<sup>1,\*</sup>, Murat YÜCEL<sup>2</sup>**

<sup>1</sup>*Gazi Üniversitesi, Bilişim Enstitüsü, Bilişim Sistemleri, Ankara, Türkiye*

<sup>2</sup>*Gazi Üniversitesi, Teknoloji Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Ankara, Türkiye.*

**Özet**

Günümüzde Bilgi Teknolojileri (BT) neredeyse her endüstrinin vazgeçilmez bir parçası durumundadır. Bilgi Teknolojileri sistemlerinde oluşan herhangi bir aksamada, birçok işletmenin operasyonları ciddi bir şekilde etkilenmektedir. Ancak günümüzde sürekli artan yazılım ve donanım çeşitliliği ve bu sistemlerin işletmelerde niceliksel anlamda artması, bütün sistemleri kontrol altında tutma noktasında BT departmanları için ciddi zorluklar yaratmaktadır. Bu nedenle sunulan BT hizmetlerinin, sistematik bir yaklaşım içerisinde yönetilmesi ihtiyacı oluşmuştur.

Hizmet Masası (*Service Desk*), BT hizmeti alan son kullanıcıların, BT ile ilgili herhangi bir sorun ya da istekte başvurdukları tek iletişim noktasıdır. Bazı firmalar Hizmet Masası rolünü şirket içinde barındırırken bazı firmalar ise bu iş üzerinde uzmanlığı olan firmalardan destek almaktadır. Bu çalışmada, firmaların hizmet masası departmanlarının işleyişi, karşılaştıkları zorluklarla birlikte verimliliği artırıcı yaklaşımlar tartışılarak, hizmet masasının gelecek beklentileri üzerinde durulacaktır. Hizmet masalarının önemli sorunlarından biri olan, olay kayıtlarında öncelik belirleme için geliştirilmiş, Öncelik Belirleme Sistemi (ÖBS) yazılımı tanıtılacaktır.

**Anahtar Kelimeler-** BT hizmet yönetimi, ITIL, Hizmet Masası, Bilet Önceliklendirme

**Abstract**

Information Technology (IT) is now an indispensable part of almost every industry. In any disruption in Information Technology systems, the operations of many businesses are seriously affected. However, today, the increasing variety of software and hardware and the quantitative increase of these systems in enterprises create serious difficulties for IT departments in keeping all systems under control. For this reason, there has been a need to manage the provided IT services in a systematic approach.

The Service Desk is the single point of contact for end users receiving IT service for any IT-related problem or request. While some companies have the Service Desk role within the company, some companies receive support from companies that have expertise in this business. In this study, the functioning of the service desk departments of the companies, together with the difficulties they face, and the approaches to increase productivity will be discussed, and the future expectations of the service desk will be emphasized. The Priority Identification System (PIS) software, which is one of the important problems of service desks and created for prioritization in event records, will be introduced.

**Keywords-** IT service management, ITIL, Service Desk, Incident Prioritization



## THE IMPACT OF GLOBALIZATION ON THE MANAGEMENT OF BANKING CAPITAL IN THE COUNTRIES OF THE WORLD

**Garmidarova Evgeniya Igorevna**

*pot-graduate student of the Department of Economics of the State Economic University of  
Azerbaijan, 69 Nizami St, ISR plaza. (12th floor), Azerbaijan*

**Babayev Nusret Salman**

*dissertation candidate of the Department of Finance and Financial Institutions of the State  
Economic University of Azerbaijan, 69 Nizami St, ISR plaza. (12th floor), Azerbaijan*

### Annotation

The article examines the impact of globalization on changes in the legislative bases of the USA, Germany, Russia and Azerbaijan. The analysis made it possible to conclude that in the countries of the world the requirement to increase bank capital is increasing, and there is a decrease in lending growth among the most vulnerable banks (undercapitalized banks). The Republic of Azerbaijan was able to achieve significant results in increasing its capital due to a timely increase in its level, as well as resorting to the process of merging those banks that could not increase their capital.

**Key words:** globalization; bank capital; capital management, capital adequacy, banking risks.

JEL: E22



## MEANS OF MONETARY REGULATION OF THE STATE AND ITS IMPLEMENTATION

**Hasan Khurshud Behbubzadeh**

Candidate of Economic Sciences,  
Department of World Economy, Baku State University

### Summary

It is related to monetary policy, which is one of the most important and leading directions of the state's economic policy and at the same time the basis of monetary regulation. The monetary policy pursued by the state at each specific stage ultimately depends on the emergence of the financial market and the formation and realization of its components, the money market and the capital market. It is known from economic literature and experience that the money market consists of the accounting market, the interbank market and the foreign exchange market. The accounting market is usually understood as short-term securities of government and commercial bills. In other words, large-scale short-term securities are circulating in the accounting market, and the main problem is their mobilization. The issues mentioned in the article are studied in the theoretical direction.

**Key words.** Economic policy, monetary policy, money market, government regulation, monetary regulation, banking system, insurance system



## KALBAJAR MUSEUM OF HISTORY AND ETHNOGRAPHY AS A SOURCE FOR THE STUDYING OF HISTORICAL MONUMENTS

KƏLBƏCƏR TARİX-DİYARŞÜNASLIQ MUZEYİ TARİXİ ABİDƏLƏRİN  
ÖYRƏNİLMƏSİNDƏ MƏNBƏ KİMİ

**Ramiz Najafli,**

candidate for a degree  
at the Faculty of History  
Baku State University

### Abstract

This article is dedicated to the study of historical monuments of Azerbaijan on the basis of materials of the Kalbajar Museum of History and Ethnography. Kalbajar Museum of History and Ethnography was established in 1980 and since 1982 has become a grand museum of world importance. The aggression of the Armenian armed forces against Azerbaijan in the early 1990s resulted not only in the killing of thousands of innocent people and their expulsion from their homes, but also in the destruction of the material and spiritual culture created by this people for thousands of years. In 1993, Armenians looted 22 museums, including the Kalbajar Museum of History and Ethnography.

More than 36.000 exhibits of the museum were looted. However, on the basis of the museum, the Kalbajar Museum of History and Ethnography was re-established in Baku. The founder of the museum, Shamil Asgarov, called the museum in Kalbajar a *shəhid* (martyr) museum, and the museum established in Baku a witness museum. The history of not only Kalbajar, but Azerbaijan as a whole was in the martyr museum. Here is dealt with the rock carvings of Kalbajar and the splendor of Gelin qayasi, Sultan Heydar mountain, Perichingili, Ayichingili, Gurbagali river, Turshsu gorge, Serchelidag and Sarimsagli dag (mountain) where they are located. Here we are talking about the rock carvings of Kalbajar and the splendor of the Gelin rock, Sultan Heydar mountain, Perichingili, Ayichingili, Gurbagali river, Turshsu gorge, Sarchalidagh and Sarimsagli mountains where they are located. One can see visual examples of totems of horses, oxen, rams, goats in the museum materials. The socio-economic, political, ethnic history and culture of our people, reflecting ethnographic examples (folk games – “maraloyunu”, “kilimarasi”, “seven valours”, etc.) are highlighted here. At first sight, the figures of rams and horses, huge bezir stones and many items found during the excavations attracted the attention of the viewers. One of the examples of material culture destroyed by Armenian vandals in 1993 is an ancient settlement near Istisu of Kalbajar region. Materials related to the remains of an ancient settlement dating back to the 3rd millennium BC were preserved in the ancient period hall and exhibit fund of the Kalbajar Museum of History and Ethnography. The remnants of a magnificent circular building with a diameter of more than 20 meters in this settlement, which occupies a large area on the high left bank of the Terter River, are a very valuable historical source. One of the valuable archeological monuments is the basalt stone, which symbolizes the sacrifice of a horse to the Sun. Gravestones in the region are also widely covered in the materials of the Kalbajar Museum of History and Ethnography.

**Keywords:** Kalbajar Museum, Perichingili, Turshsu gorge, Bezir Stones



Bu məqalə Kəlbəcər Tarix-Diyarşünaslıq Muzeyinin materialları əsasında Azərbaycanın tarixi abidələrinin öyrənilməsinə həsr olunub. Kəlbəcər Tarix-Diyarşünaslıq Muzeyi 1980-ci ildə yaradılaraq, 1982-ci ildən dünya əhəmiyyətli möhtəşəm bir muzeyə çevrilmişdir. 1990-cı illərin əvvəllərində Ermənistan silahlı qüvvələrinin Azərbaycana təcavüzü təkcə minlərlə günahsız insanların qətl edilməsi, yurd-yuvalarından didərgin düşməsi ilə deyil, eyni zamanda bu xalqın minillər boyu yaratdığı maddi və mənəvi mədəniyyətin məhvəsinə gətirib çıxardı. Təkcə 1993-cü ildə ermənilər 22 muzey, o cümlədən Kəlbəcər Tarix-Diyarşünaslıq Muzeyini talan etdilər. Muzeyin 36 mindən artıq eksponatını yağılar qənimət götürdülər. Bununla belə həmin muzeyin əsasları üzərində yenidən Bakı şəhərində Kəlbəcər Tarix-Diyarşünaslıq Muzeyi yaradıldı. Muzeyin qurucusu Şamil Əsgərov Kəlbəcərdəki muzeyi şəhid muzey, Bakıda yaradılan muzeyi isə şahid muzey adlandırmışdır. Şəhid Muzeydə nəinki Kəlbəcərin, bütövlükdə Azərbaycanın tarixi yatırdı. Burada Kəlbəcərin qaya təsvirləri və onların yerləşdikləri Gəlin qayası, Sultan Heydər dağı, Pəriçinqılı, Ayıçinqılı, Qurbağalı çay, Turşsu dərəsi, Sərçəlidağ və Sarımsaqlı dağın möhtəşəmliklərindən söz açılır. Muzey materiallarında at, öküz, qoç, keçi totemlərinin əyani nümunələrini görmək olur, etnoqrafik nümunələrini(xalq oyunları-“maraloyunu” “kilimarası” “yeddi hünər” və.s) özündə əks etdirən xalqımızın sosial-iqtisadi, siyasi, etnik tarixi və mədəniyyətinə işıq saçılır. Daşdan qoç və at fiqurları, nəhəng bəzir daşları, qazıntı nəticəsində tapılmış çoxlu əşyalar ilk baxışdan tamaşaçıların diqqətini özünə cəlb edirdi. 1993-cü ildə erməni barbarları tərəfində dağıdılmış maddi mədəniyyət nümunələrindən biri də Kəlbəcər rayonunun İstisu qəsəbəsi yaxınlığındakı qədim yaşayış məskənidir. Eramızdan əvvəl III minilliyə aid qədim yaşayış yerinin qalıqlarına aid materiallar Kəlbəcər Tarix-Diyarşünaslıq Muzeyinin qədim dövr salonunda və eksponat fondunda qorunub saxlanılırdı. Tərtərçayın hündür sol sahilində geniş bir sahəni tutan bu yaşayış yerində diametri 20 metrədən artıq olan dairəvi formalı möhtəşəm tikinti qalığı çox dəyərli tarixi mənbədir. Qiymətli arxeoloji abidələrdən biri də, atın günəşə qurban kəsilməsini təcəssüm etdirən bazalt daşdır. Bölgədəki qəbirüstü abidələr də Kəlbəcər Tarix-Diyarşünaslıq Muzeyinin materiallarında geniş yer almışdır.

**Açar sözlər:**Kəlbəcər muzeyi, Pəri çinqılı, Turşsu dərəsi, Bəzir daşları



## THE COUNTRY'S FOREIGN TRADE POLICY AND ITS ROLE IN INTEGRATION INTO THE INTERNATIONAL ECONOMY

**Nusret Salman ogluy Babayev**

teacher of the Department of Finance  
and Financial Institutions of the Azerbaijan State University of Economics,

**Habil Huseyn oglu Aslanov**

Associate Professor of the Baku State University

### Summary

In modern conditions, the formation and development of the national economy is possible not only through domestic opportunities, but also through the wider and more effective use of international trade relations. The country's participation in international trade relations allows it to develop and effectively use the existing export potential in order to enhance economic development, taking advantage of the economic and strategic advantages created by the international division of labor, and opens new prospects in this direction.

In the scientific literature, the export potential is shown as an integral part of the country's economic potential that can be used for export purposes. This potential includes natural-economic, technical-economic, scientific-technical potential, foreign trade infrastructure, labor reserves, etc., which are and can be used in the production and export of goods and services for export.

**Keywords:** national economy, foreign trade, export policy, economic integration, export potential, domestic market, economic regulation



## REPRESSİYA İLLƏRİNDƏ AZƏRBAYCAN FOLKLORŞÜNASLIĞI FUNKSIONAL STRUKTUR SİSTEMİ KONTEKSTİNDƏ

### AZERBAIJAN FOLKLORE IN THE CONTEXT OF FUNCTIONAL STRUCTURAL SYSTEM DURING REPRESSION

### АЗЕРБАЙДЖАНСКАЯ ФОЛЬКЛОРИСТИКА В КОНТЕКСТЕ ФУНКЦИОНАЛЬНОЙ СТРУКТУРНОЙ СИСТЕМЫ В ГОДЫ РЕПРЕССИИ

**Assoc. Prof. Sarkhan KHAVERI**  
Scientific secretary of the Presidium of ANAS

#### Xülasə

Məqalədə repressiya illərində folklorşünaslığın nəzəri məsələlərindən söhbət gedir. Azərbaycan folklorşünaslığının 30-cu illər mərhələsi repressiya illərinə təsadüf edir. Bu illərdə folklorşünaslıq olduqca ağır təzyiqlərə məruz qalmışdır. XX əsrin əvvəllərində Qərb nəzəri görüşləri əsasında formalaşan S.Mümtaz, Ə.Abid, V.Xulufu, H.Zeynallı, H.Əlizadə və b. kimi folklorşünasların məhsuldar yaradıcılıq dövrü bu mərhələyə təsadüf edir. Onlar folklorə sosial kontekstə yanaşmağa meyilli olmuşdular. Buna görə də onların dünyagörüşü sovet ideologiyası ilə ziddiyyət təşkil etmişdir. Məqalədə müəyyən edilmişdir ki, ötən əsrin otuzuncu illərində Azərbaycan folklorşünaslarının represiyaya məruz qalmasının əsas səbəblərindən biri də onların milli dəyərlərin daşıyıcısı olması olmuşdur.

**Açar sözlər:** repressiya, folklorşünaslıq, ağız ədəbiyyatı, şifahi ədəbiyyat, el ədəbiyyatı, avam ədəbiyyatı, folklorizm, identifikasiya, sovet ideologiyası

#### Abstract

The article deals with an analysis of theoretical matters of the folklore studies during repression. The stage of 30s years of Azerbaijani folklore studies coincides with years of repression. Within this year, the folklore studies were exposed to severe pressure. At the beginning of 20-th century, the productive creative period of the folklore specialists such as S.Mumtaz, A.Abid, V.Khulufu, H.Zeynalli, H.Alizade and so on formed based on the western theoretical ideas.

They preferred to approach the folklore from the social point of view. Therefore their outlook contradicted the soviet ideology. By this article it was revealed that one of the reasons of exposing Azerbaijani folklore studies to repression within 30s years of the last century was that they were carrier of national values.

**Key words:** repression, folklore studies, folklore, simpleton literature, folklorist, identification, soviet ideology

#### Резюме

В статье повествуется о теоретических вопросах фольклористики в годы репрессии. Этап 30 – х годов азербайджанской фольклористики приходится в годы репрессий. В эти годы фольклористика подвергалась слишком тяжелым нападениям. В начале XX века продуктивный творческий период таких фольклористов, как С. Мумтаз, А. Ахид, В. Хулуflu, Г. Зейналлы, Г. Ализаде и других фольклористов, сформированные на основе теоретических взглядов Запада приходится на этот этап.



Они подходили к фольклору с точки – зрения социального контекста. По этой причине, их мировоззрение составляет противоречие с советской идеологией. В статье установлено, что в тридцатых годах прошлого века одним из причин подвергания репрессиям азербайджанской фольклористики является то, что азербайджанская фольклористика являлась носителем национальных ценностей.

**Ключевые слова:** репрессия, фольклористика, разговорная литература, устная литература, народная литература, невежественная литература, фольклоризм, идентификация, советская идеология



# ERGENLERDE PSİKOLOJİK SAĞLAMLIK ÜZERİNE ARAŞTIRMA: BİR ÖLÇEK GELİŞTİRME ÇALIŞMASI

## RESEARCH ON PSYCHOLOGICAL RESILIENCE IN ADOLESCENTS: A SCALE DEVELOPMENT STUDY

**Büşra GÜNEŞ**

Fırat Üniversitesi, Psikolojik Danışman, Orcid: 0000-0002-7644-0155

### Özet

Bu çalışma ergen bireylerin psikolojik sağlamlık düzeylerini belirleyebilmek amacıyla yapılmış bir ölçek geliştirme araştırmasıdır. Bu amaç doğrultusunda “Ergenlerde Psikolojik Sağlamlık Ölçeği”nin geliştirilmesi geçerlik ve güvenirlik çalışmalarının yapılması temel hedef olarak belirlenmiştir. Araştırma için 2020-2021 eğitim-öğretim yılında farklı üniversitelerde eğitim gören örneklem gruplarından veri toplanmış ve gerekli analizler yapılmıştır. Ölçeğin geliştirilmesi aşamasında ilk olarak 52 madde yazılmış ve bu maddeler alanında yetkin uzmanlara gönderilmiştir. Uzmanlardan gelen dönütler sonucunda gerekli düzenlemeler yapılmış ve 22 maddelik bir form elde edilmiştir. Yapılan AFA sonucunda 4 madde ölçekten atılarak ölçek 18 maddeli ölçek ortaya çıkmıştır. Sonrasında DFA ve ölçüt geçerliği yapılmıştır. Güvenirlik çalışmaları için ise iç tutarlılık analizleri yapılmıştır. AFA sonucunda 2 faktör olarak elde edilen ölçeğin DFA sonucunda doğrulaması yapılmış iki faktörlü ve 18 maddeli olduğu sonucuna ulaşılmıştır. Ölçekte tersten kodlanması gereken 6 madde (3, 4, 5, 8, 13, 14) bulunmaktadır. İstatiksel analiz sonucunda 18 maddeli ve 2 boyutlu Ergenlerde Psikolojik Sağlamlık Ölçeğinin Cronbach Alfa güvenirlik katsayısı (Faktör 1= .867; Faktör 2= .809) olarak hesaplanmıştır. İki faktörden ve 18 maddeden oluşan ölçeğin maddelerine ilişkin faktör yükleri (.804 ile .443) arasında değişmektedir. Kısa Psikolojik Sağlamlık Ölçeği ile yapılan ölçüt geçerliği çalışmasında ( $r = .719$ ;  $p < .001$ ) Ergenlerde Psikolojik Sağlamlık Ölçeğinin iyi bir korelasyon sağladığı görülmektedir.

**Anahtar kelimeler:** Ergenler, Psikolojik Sağlamlık, Ölçek Geliştirme, Güvenirlik, Geçerlik

### Abstract

This study is a scale development study conducted to determine the psychological resilience levels of adolescent individuals. In line with this purpose, the development of the "Adolescents Psychological Resilience Scale" has been determined as the main objective to conduct validity and reliability studies. For the research, data were collected from sample groups studying at different universities in the 2020-2021 academic year and necessary analyzes were made. During the development of the scale, 52 items were first written and these items were sent to experts in their field. As a result of the feedback from the experts, necessary arrangements were made and a 22-item form was obtained. As a result of the EFA, 4 items were removed from the scale, and the scale emerged as an 18-item scale. Afterwards, CFA and criterion validity were performed. Internal consistency analyzes were performed for reliability studies. It was concluded that the scale, which was obtained as 2 factors as a result of EFA, was validated as a result of CFA and has two factors and 18 items. There are 6 items (3, 4, 5, 8, 13, 14) that need to be coded in reverse in the scale. As a result of the statistical analysis, the Cronbach Alpha reliability coefficient of the 18-item and 2-dimensional Adolescent Resilience Scale was calculated as (Factor 1= .867; Factor 2= .809). The factor loadings of the items of the scale, which consists of two factors and 18 items, vary between (.804 and .443). In the criterion validity study performed with the Brief Resilience Scale ( $r = .719$ ;  $p < .001$ ), it is seen that the Adolescent Resilience Scale provides a good correlation.

**Key words :** *Adolescents , Resilience , Scale Development , Reliability , Validity*



## **SOCIAL LOAFERS' CONTINUOUS SOCIAL LOAFING – A MEDIATOR IN THE RELATIONSHIP BETWEEN TEAMMATES' SOCIAL COMPENSATION AND LOW TEAM PERFORMANCE**

**Thu Hang Pham**

*Department of Psychology, The People's Police Academy, Hanoi, Vietnam*

### **Abstract**

*Social loafing, the tendency of an individual in a team to put forth less effort and rely on other members, is a great hindrance to every learning team of students in higher education. Team members have several ways of reaction to social loafing including exert more effort to compensate for their peers. A survey was conducted on 351 cadets of The People's Police Academy in Vietnam in 2021 in order to find out whether an association exists among three variables consisting of social compensation of team members for social loafers, responsiveness of social loafers to their teammates' compensatory actions and low team performance. The study's result demonstrates that continuous social loafing of the social loafers can account for the relationship between the social compensation and the low team performance. It is recommended that the research finding be spread to not only students but also lecturers so as to deal with social loafing in learning teams effectively and enhance team performance.*

**Key words:** social loafing, social loafers, learning teams, social compensation, team performance, Vietnam.



## JAPAN AND THE USA IN THE ERA OF HIGHLY-SKILLED IMMIGRATION: COMPARISON BETWEEN TSUKUBA SCIENCE CITY AND PALO ALTO (SILICON VALLEY)

**Dr. Gökberk DURMAZ & Dr. Güray ALPAR**

<sup>1</sup> *Lecturer, International Relations, Social Sciences University of Ankara (ASBU), Ankara,  
TURKEY*

*Orcid ID: 0000-0001-5031-6837*

<sup>1</sup> *Assoc. Prof., President of SDE (Institute of Strategic Thinking), Ankara, TURKEY*

*Orcid ID: 0000-0003-0122-7795*

### **Abstract**

Japan and the US both are still very powerful countries regarding their economy and industries. Nowadays with technological developments in robotics, needs for manual workers are decreasing, in contrast importance of highly-skilled workers are skyrocketing. Almost all countries are trying to attract international highly-skilled workers, to do this they sometimes apply to research parks where international immigrants can engage with local peers easily without interruption of other sort of difficulties of metropolitan cities. This paper aims to comparatively analyze the role of research parks for highly-skilled migrants in Japan and the US. The study based on a field research in Tsukuba Science City with doing interviews with highly-skilled migrants, their host research institutions and also with officials of local governments. The paper mainly focuses on Tsukuba and Japan's migration policies. And it will be compared with one of the most successful example in the World for creating an advanced innovation and research environment: Palo Alto, CA.

**Keywords:** japan, the us, research parks, tsukuba science city, palo alto, silicon valley,