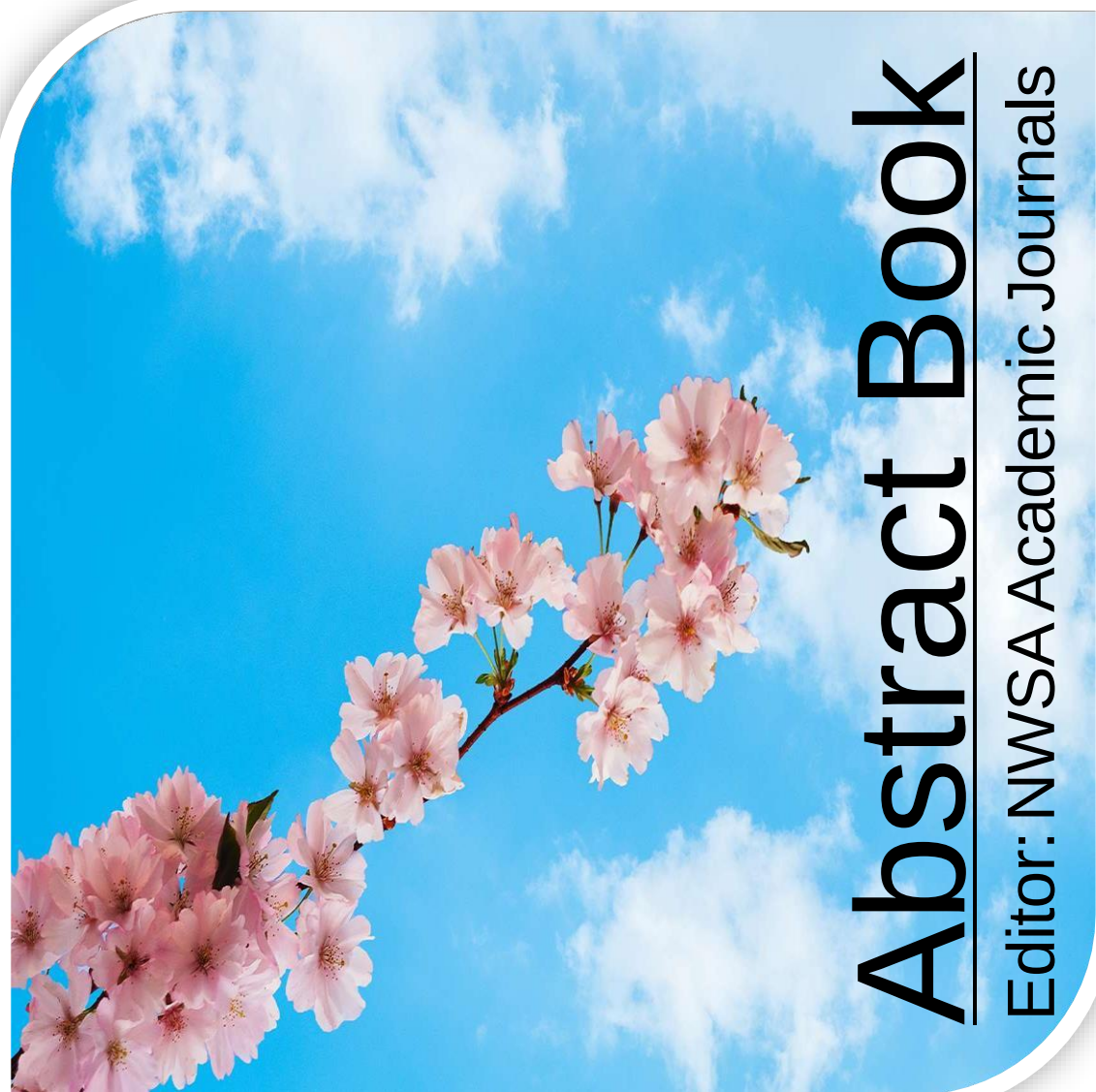


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*Science Festival: New Horizons in Science*



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Pristina/Kosovo - 2018

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**BİLDİRİ ÖZETLERİ KİTABI**  
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| 3B3PB                                                            | THE RELATIONSHIPS BETWEEN UDDER TRAITS AND MILK COMPOSITION AND SUBCLINICAL MASTITIS IN KARAYAKA SHEEP<br><b>Filiz Akdağ, Bülent Teke, Mustafa Uğurlu, Firdevs Binli Önyay, Ömür Koçak</b> | Veterinary Sciences            |
| 3C13PB                                                           | RECOGNITION OF THE SOCIAL WORK OCCUPATION AND BENEFITING FROM SOCIAL SERVICES IN THE MANİSA CITY CENTER<br><b>Şeyda Yıldırım, Hakan Baydur, Gülten Uçan</b>                                | Social Sciences                |
| 1B19PB                                                           | GEBE MASAJININ GEBENİN İYİLİK HALİNE ETKİSİ VE KADINLARIN MEMNUNİYET DÜZEYİ: RANDOMİZE KONTROLLÜ BİR ÇALIŞMA<br><b>Yeliz Çakır Koçak, Ümran Sevil, Ahmet Mete Ergenoğlu</b>                | Life Sciences                  |
| 5A15PB                                                           | POLLUTANT BIOACCUMULATION IN THE WEDGE CLAM FROM IGNEADA SHORES OF THE BLACK SEA<br><b>Levent Bat, Fatih Şahin, Ayşah Öztekin</b>                                                          | Ecological Life Sciences       |

| NWSA Young Scientists Awards of the ISS2018 |                                                                                                                                                               |                                |
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| ID                                          | Title and Author(s)                                                                                                                                           | Science Branch                 |
| 1A9PB                                       | ECO-FRIENDLY SYSTEM DESIGN THAT CAN HARVEST TREE VIBRATIONS<br><b>Tuan Dolmen, Viki Calderon</b>                                                              | Engineering Sciences           |
| 1A41AB                                      | INSECT REPELLENT ROBOT FOR AGRICULTURAL APPLICATIONS<br><b>Ege Özgül, Talha Kılıç</b>                                                                         | Engineering Sciences           |
| 1A48IJ                                      | THE NEURO MOTION ANALYZER EXAMINING THE DECISION-MAKING MECHANISM OF THE HUMAN BRAIN<br><b>Eran Özserfati, Ata Akın, Talha Kılıç</b>                          | Engineering Sciences           |
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| 3C4AB                                       | RELATIONSHIP BETWEEN POPULARITY IN SOCIAL MEDIA AND SCHOOL SUCCESS<br><b>Lidya Demir, Burcu Cebeloğlu, Viki Calderon</b>                                      | Social Sciences                |
| 3C5AB                                       | THE DAYS ON THE TRAM IN İZMİR<br><b>Alp Balcı, Burcu Cebeloğlu, Viki Calderon</b>                                                                             | Social Sciences                |
| 3C6AB                                       | THE ROLE OF THE FATHER IN THE COGNITIVE AND EMOTIONAL DEVELOPMENT OF CHILDREN BETWEEN 2-6 YEARS<br><b>Tuğçe Selen Güçlüer, Burcu Cebeloğlu, Viki Calderon</b> | Social Sciences                |
| 3C7AB                                       | UNEMPLOYMENT EFFECTS ON SOCIAL PROBLEMS AND FAMILY<br><b>Deniz Efe Akiz, Burcu Cebeloğlu, Viki Calderon</b>                                                   | Social Sciences                |

**University and Institutions Represented in the Symposium**

| <b>No</b> | <b>University or Institutions</b>             | <b>Country</b>         |
|-----------|-----------------------------------------------|------------------------|
| 1         | Abant İzzet Baysal University                 | Turkey                 |
| 2         | Abdel Hamid Ibn Badis University              | Algeria                |
| 3         | Akım Metal A.Ş.                               | Turkey                 |
| 4         | Ankara University                             | Turkey                 |
| 5         | Artvin Çoruh University                       | Turkey                 |
| 6         | Atatürk University                            | Turkey                 |
| 7         | Batumi Shota Rustaveli State University       | Georgia                |
| 8         | Batumi State University                       | Georgia                |
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| 29        | Kafkas University                             | Turkey                 |
| 30        | Karabük University                            | Turkey                 |
| 31        | Kastamonu University                          | Turkey                 |
| 32        | Keşan Tic. ve San. Odası Anadolu High School  | Turkey                 |
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| 44        | Sabahattin Zaim University                    | Turkey                 |
| 45        | Sakarya University                            | Turkey                 |
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| 47        | Süleyman Demirel University                   | Turkey                 |
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| 49        | Tikrit University                             | Iraq                   |
| 50        | Trakya University                             | Turkey                 |
| 51        | TUBİTAK                                       | Turkey                 |
| 52        | Ulus Private Musevi Schools                   | Turkey                 |
| 53        | University of Applied Sciences in Ferizaj     | Kosovo                 |
| 54        | Ministry of Education, Science and Technology | Kosovo                 |



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**"Keynote Speaker"**

**REVIEW ON CONSTRUCTION PROJECT MANAGER SELECTION CRITERIA AND METHODS  
DEPARTMENT OF INDUSTRIAL ENGINEERING, UNIVERSITY OF SISTAN AND  
BALUCHESTAN, IRAN**

**ABSTRACT**

The success of a construction project depends on several critical success factors. One important factor is supervision by a competent project manager with proven leadership skills. Therefore, the selection of a project manager for construction projects is, by nature, one of the most important and, at the same time, most complicated decisions to be made. Selecting the best project manager among many candidates is a multi criteria decision making (MCDM) problem. Choosing a project manager for a construction project is a critical project decision. The scope of this paper deals with the decision making process concerning selection of the finalists for position of construction project manager. This article reviewed the corresponding methods in different stages of multi-criteria decision-making for project manager selection. Also, it provides an overview on various criteria used. This paper provides useful insights into the MCDM methods for project manager selection and suggests a framework for future attempts in this area for academic researchers and practitioners.

**Keywords:** Construction, Decision Making, Multiple Criteria  
Decision Making, Project Manager Selection,  
Project Management





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"Keynote Speaker"

**BOIDIVERSITY OF MEDICINAL PLANTS OF WILD FLORA IN AJARA-SOUTH COLCHIS  
AND THEIR USAGE IN FOLK MEDICINE**

**ABSTRACT**

The paper deals with the biodiversity of species of medicinal plants of wild flora in Ajara-south Colchis, their systemic structure and peculiarities of use in folk medicine, also recipes widespread and successfully used by local people. It is estimated, that: wild medicinal plants of Ajara- south Colchis are represented by 194 species, belonging to 154 genera and 73 families. The biggest amount of species is gathered in following families: Asteraceae, Rosaceae, Lamiaceae, Solanaceae, Scrophulariaceae, Caryophyllaceae, Hypericaceae, Polypodiaceae, Vacciniaceae, Crassulaceae. Other families are represented with small number of them. Species the most commonly used in the recipes of traditional medicine are: *Chelidonium majus*, *Urtica dioica*, *Mentha longifolia*, *Bidens tripartita*, *Leonurus quinquelobatus*, *Tussilago farfara*, *Matricaria chamomilla*, *Glycyrriza glabra*, *Vaccinium vitis-idaea*, *Hypericum perforatum*, *Arctium lappa*, *Vaccinium myrtillus*, *Carum carvi*, *Helichrysum arenarium*, *Poligonum aviculare*, *Persicaria hydropiper*, *Equisetum arvense*, *Salvia glutinosa*; *Vaccinium arctostaphylos*, *Verbascum thapsus*, *Rosa canina*, *Achillea millefolium*, *Inula helenium*, *Humulus lupulus*, *Rubus caesius*, *Crataegus microphylla*, *Crataegus pentagyna*, *Ammi visnaga*, *Sambucus ebulus*.

**Keywords:** Folk Medicine, Recipes, Medicinal Plants,  
Biodiversity, Ajara



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**EFFECT OF BREEDING SYSTEMS AND MALE FEMALE RATIOS ON EGG PRODUCTION  
AND HATCHABILITY CHARACTERISTICS OF PARTRIDGES (A. GRAECA)**

**ABSTRACT**

This study was conducted to determine the effects of grown at breeding systems, male-female ratios on egg production and hatchability characteristics of partridges which were. In 1 male: 3 female, 1 male: 4 female, 1 male: 5 female partridge groups which were grown in mating cages, the values of 47.87%, 45.78 and 42.68 (P<0.01) for egg production, 24.42, 22.93 and 20.43g (P<0.05) for egg weight, 83.57%, 86.73, and 82.81 (P<0.05) for hatchability, 80.43%, 82.14 and 78.58 (P<0.05) for fertility rate, 84.47%, 85.31 and 80.15 (P<0.05) for hatchability of fertile eggs were obtained, respectively. In 3 male: 9 female, 3 male: 12 female, 3 male: 15 female partridge groups that were grown in group cages, the values of 44.53%, 43.35 and 40.08 for egg production, 23.74, 21.86 and 19.79 g for egg weight, 84.33%, 85.75, and 80.67 for hatchability, 79.83%, 80.35 and 75.47 for fertility rate were obtained, respectively (P<0.05).

**Keywords:** Partridge, Breeding Systems, Male Female Ratio, Egg Production, A. Graeca



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"Keynote Speaker"

**APPLICATION OF THE ARROT METHOD TO THE ESTIMATION MAGNETIZATION IN  
MAGNETOINSTABLE SYSTEMS**

**ABSTRACT**

The magnetic instability of the system of collectivized electrons manifests itself in rare-earth intermetallic compounds  $RCo_2$  as well. In these intermetallids, the magnetic subsystem of collectivized electrons in the exchange field acting from the side of the rare-earth subsystem of localized  $4f$ -electrons. To determine the role of the  $f-d$  exchange interaction in the magnetic behavior of the zonal system, we studied the magnetic properties of the system  $Y_{1-t}Gd_t(Co_{1-x}Al_x)_2$ . It was revealed that, in the  $f-d$  systems with the magneto-instable zonal subsystem, the  $f-d$  exchange interaction leads to the emergence of the effects connected with the transition of this system from one magnetic state to another. The analysis of magnetization curves of these compounds was performed by using the Arrot method. The field dependence of magnetization of some compounds of the studied systems in the vicinity of the characteristic temperature of the susceptibility maximum is expressed by the equation  $H/M = A + BM^{1.2}$ .

**Keywords:** Magnetoinstable, Exchange Field,  
Exchange Interaction, Magnetization, Susceptibility



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**"Keynote Speaker"**

**ENTREPRENEURIAL COMPETENCES AND TEACHING**

**ABSTRACT**

The future competitiveness on the labor market under dynamic and complex business environments relies on learning, motivation and entrepreneurial thinking. Entrepreneurial competencies, creative and critical thinking are important to be competitive, strengthen the ability to recognise and track your own opportunities, as well to develop new ideas and put them into practice. Entrepreneurial competences is possible to improve through education. Entrepreneurship education has been recognized as very important, it helps students to understand and foster entrepreneurial intention and attitude. During study process student develop competences, advance their knowledge and improve skills to understanding context of situation, how to recognize opportunity, how to get and create competitive knowledge. The aim of this article is to present dynamic learning model, which can be useful to improve existing education models and methods. This model implies that university role, different course programs can influence attitude, entrepreneurship intention and elevates the chances that students would eventually choose an entrepreneurship for their career.

**Keywords:** Entrepreneurial Intention, Competences,  
Dynamic Teaching, Model, Vocational Education



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**"Keynote Speaker"**

**THE FOURTH INDUSTRIAL REVOLUTION AND MODERNIZATION OF HIGHER  
EDUCATION IN BOSNIA AND HERZEGOVINA**

**ABSTRACT**

If we are to remind ourselves; the First Industrial Revolution meant mechanization of production utilizing water and steam power. The Second Industrial Revolution meant mass production via electric power. The Third Industrial Revolution meant automation of production via electronics and information technology. The Fourth Industrial Revolution, which has been occurring since the middle of the twentieth century, means fusion of technologies based on the digital revolution. This fusion is referred to as 'blurring the lines between the physical, digital, and biological spheres' with a pace incomparable to the previous transformations with an impact on each and every industry in each and every country by Klaus Schwab, the Founder and Executive Chairman of the World Economic Forum. This work discusses the impact of the Fourth Industrial Revolution on higher education in Bosnia and Herzegovina. Technological innovation in the last decades has completely transformed the skills needed for employability. With the Fourth Industrial Revolution ongoing, it is anticipated that labor market needs will determine the skills to be required. The major skills anticipated to be valued in the future can be listed as: adaptability, innovation, coding skills, life-long learning, and cross-cultural competencies. Bosnia and Herzegovina, in aspiration to become a member of the European Union, is in the process of reforming its higher education in order to harmonize with the European Union goals in higher education. This work will also exemplify certain efforts taken in this direction.

**Keywords:** The Fourth Industrial Revolution, Modernization,  
Higher Education, Bosnia and Herzegovina,  
Employability

|             |                                                                              |
|-------------|------------------------------------------------------------------------------|
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|-------------|------------------------------------------------------------------------------|



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**COST AND QUALITY FOCUSED SUITABLE BOX DETERMINATION WITH DESIGN OF  
EXPERIMENT: A CASE OF A GLASSWARE COMPANY**

**ABSTRACT**

There is an increasing competition between companies for their survival in today's business environment. Not only time but also cost parameters affect the company's sustainability performance. Logistics as one of the core operations of companies has a large share on expenses. Transport, warehousing, administration, packaging, and other indirect costs constitute the main cost values of logistics. Especially product damages caused by incorrect packing and transportation leads to extra expenditures to the companies and damages their reputation due to the customer dissatisfaction. In order to avoid such situations, proper level of packaging for protection, transportation conditions, features of the product like fragility, compactness, must be selected and matched correctly. On the other hand, some external factors such as temperature and humidity, which affect the quality of cardboard, also need to be considered in the production phase. In this study, a Design of Experiment methodology is performed to determine the suitable conditions for increasing the strength of the corrugated cardboard box that is used by a Glassware Company operating in Turkey. 3<sup>k</sup> full factorial design approach is implemented for the analysis and box compression test is used for measurement. The discussed factors and the interactions of the factors were evaluated with the help of Minitab software.

**Keywords:** Design of Experiment, Logistics, Savings,  
Glass, Company



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## ECO-FRIENDLY SYSTEM DESIGN THAT CAN HARVEST TREE VIBRATIONS

### ABSTRACT

By using the piezo electric and magnetic effect in a hybrid way, it is aimed to make an environmentally friendly system that can be used in digital agriculture by harvesting energy from the vibrations of trees, measuring humidity and temperature and transmitting the data via wireless communication. The working principle of the system developed by using the single coil configuration in the first stage is based on the energy production of induction by the motion of the magnets at the end of the cantilever beam, between the coils. The energy obtained is 60.9mWh at 1 Hz ambient vibration. The system is designed to measure humidity and temperature with the DHT11 sensor connected to Arduino and communicate with HC-06 Bluetooth module. The estimated cost of our prototype is 192.19TL/50.29\$/41.04€. The innovation in the system is the coupling of different electromagnetic and piezoelectric systems. Vibration is everywhere.

**Keywords:** Vibration, Piezoelectric, Electromagnetic,  
Hybrid, Digital Agriculture

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## İLKÖĞRETİM BİNALARININ TASARIMINDA YANGIN GÜVENLİK ANALİZİ ÖZ

Bu araştırmanın amacı yangın yönetmeliğinin eğitim binası tasarımında ve yapımında yangın güvenlik önlemlerine nasıl etki ettiğinin analiz edilmesidir. Çalışma bölgesi olarak ülkenin az gelişmiş şehirlerinden biri olan Tokat il merkezi seçilmiştir. Araştırma çok zaman ve yardımcı araştırmacı gerektirdiği için Tokat'ta projelendirilmiş ve inşa edilmiş eğitim binalarından örnekler seçilmiştir. Çalışma da yöntem olarak; Ulusal yangın yönetmeliğinin yürürlüğe girdiği tarih olan 2002 yılından önce projelendirilen ve inşa edilen 1 adet eğitim binası ile 2002 yılından sonra projelendirilen ve inşa edilen 1 adet eğitim binası Ulusal Yangın Yönetmeliği, ABD Yangın Yönetmeliği (NFPA) ve İngiltere Yangın Yönetmeliği (BS) hükümleri arasından belirlenen 20 kritere göre mimari projeleri üzerinden, bina yerinde yapılan incelemeler ve proje müellifleri ile yapılan görüşmeler ışığında analiz edilmiş ve sonuçlar değerlendirilmiştir. **Sonuç** olarak 2002 yılında ülkemizde yürürlüğe girmiş olan Binaların Yangından Korunması Hakkındaki Yönetmelik' ten önce inşa edilmiş eğitim binası ve sonrasında inşa edilmiş eğitim binası arasında karşılaştırma yapıldığında her 3 mevzuata göre de yeni eğitim yapımızda yangın güvenlik önlemleri açısından iyileşmeler olduğu görülmüştür. Ancak hala eğitim binalarındaki yangın güvenlik önlemlerinin istenen seviyeye ulaşmadığı görülmüştür.

**Anahtar Kelimeler:** Yangın Güvenliği, Eğitim Binası, Tasarım, İnşaat, Tokat

## FIRE SAFETY ANALYSIS IN THE DESIGN OF ELEMENTARY SCHOOL BUILDINGS ABSTRACT

The aim of this research is to analyze how the fire regulations affect fire safety measures in the design and construction of educational buildings. Tokat province center which is one of the less developed cities of the country was selected as the study area. Because the research required a lot of time and assistant researchers, only samples were selected from the educational buildings that were designed and built in Tokat. The method of the study; One educational building projected and built before 2002, the date when the Turkey National Fire Regulation entered into force, and one educational building projected and built after 2002 were analyzed according to 20 different rules which selected from The Turkey's National Fire Regulations, the NFPA and the UK Fire Regulations (BS) on the basis of the interviews made with the architects and project developers, and architectural project of the buildings and the results were evaluated. Results: When compared the educational building constructed before the National Fire Regulation, which entered into force in Turkey at 2002, and according to all three legislations, it is seen that the new educational building improves in terms of fire safety measures. But it's seen that, the fire safety protection in the educational buildings is still not in the wanted level.

**Keywords:** Fire Safety, Education Building, Design, Construction, Tokat

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## ANALYSIS AND COMPENSATION OF DEAD TIME EFFECT IN VOLTAGE SOURCE INVERTERS

### ABSTRACT

Dead time is vital to avoid shoot-through of the dc link and it is detrimental for the performance of PMW voltage source inverters. One of the most popular techniques is a constant dead time compensation voltage (DTCV) along with phase current polarity. But a constant DTCV in low currents leads to the overcompensation in the system because of the nonlinearity of the inverter. To avoid this error, a compensation voltage is implemented depending on current level. In this paper, the comparative analysis of constant and current level depending DTCVs is given. Simulation results for both methods were obtained in MATLAB/Simulink and experimentally verified.

**Keywords:** Dead Time, Dead Time Compensation, MATLAB/Simulink, Analysis, PMW



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### **İMAR ADASI ÖLÇEĞİNDE KENTSEL DÖNÜŞÜM UYGULAMASI: ELAZIĞ ÖRNEĞİ**

#### **Öz**

Kentsel yaşam standartlarının ve yapı kalitesinin uluslararası standartlara çıkarılması için son 10 yılda Türkiye’de pek çok yerleşim alanı yaşanabilir çevrelere dönüştürme çabasına girişilmiştir. Bu çalışmada da; Elazığ Abdullah Paşa Mahallesi konut alanlarını kapsayan 18.481m<sup>2</sup>’lik bir bölgenin "Kentsel Dönüşüm Projesi" hazırlanmıştır. Bu amaçla, paylaşım modeli ve imar planı revizyonu yapılarak, alandaki problemlere bütüncül bir proje ile çözüm önerisi sunulmuştur. Yüklenici payı düşünülerek önerilen kat artışı ile 228 adet konut, 49256m<sup>2</sup> toplam inşaat alanı, 10887m<sup>2</sup> otopark-yeşil alan ve ilave kentsel donatılar elde edilmiştir. Böylece hak sahipleri mağdur edilmeden yapı stoku yenilemiştir.

**Anahtar Kelimeler:** Kent Planlama, Kentsel Dönüşüm, İmar Planı, Parselasyon, Elazığ

### **APPLICATION OF URBAN TRANSFORMATION ON THE ZONING PARCELS SCALE: THE CASE OF ELAZIĞ**

#### **ABSTRACT**

In the last 10 years, many residential areas in Turkey have been renovated to removal for international standard for Urban life and building quality. In the Elazığ Abdullah Paşa District, "Urban Transformation Project" of a 18.481m<sup>2</sup> area covering residential areas was prepared. Sharing model and zoning plan revise were made so that a solution proposal was presented with a complete project to the problems in this area. 228 houses, 49256m<sup>2</sup> total construction area, 10.887m<sup>2</sup> parking-green area and additional urban facilities were obtained with the floor increase by considering the share of the contractor. Thus, the buildings were renovated and property owners were not victims.

**Keywords:** Urban Planning, Urban Transformation, Development Plan, Parceling, Elazığ

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## **KENTSEL TİCARET ALANLARINDA KULLANICI MEMNUNİYETİ: ERZİNCAN ÖRNEĞİ**

### **ÖZ**

Kentler, insanların ortak yaşamlarını sürdürdükleri yapısal ortamın yani, ortak hayatın varlık nedeni ve yaşama alanıdır. Tarih boyunca birçok kentin karakteristik özelliği, içinde ekonomik, sosyal, kültürel ve yönetim faaliyetlerinin yer aldığı bir merkezi alanın olmasıdır ve bu alan kentin imajı ve kimliği ile özdeşleşmiştir. Kentsel ticaret alanları, erişilebilirlikten kaldırım genişliklerine, cadde ve sokak genişliklerinden ticaret alanlarının çevresindeki otopark alanlarına kadar geniş bir yelpazeyi içermektedir. Bu işlev alanları planlanırken kent imar planlarıyla eşgüdüm içinde yapılmalıdır. Bu çalışmada, Erzincan kent merkezindeki ticaret alanları, fiziki planlama esaslarına göre incelenmiş, kent merkezindeki farklı mahallelerde yaşayanların ticaret alanlarından memnuniyetleri bir anket uygulaması yapılarak değerlendirilmiştir. Uygulama çalışmasına göre katılımcıların; "Ticaret alanlarının yeterlilik ve erişilebilirlik" memnuniyetinin yeterli (2.641) düzeyde olduğu ancak, "Ticaret alanlarının yeterli olmadığına" ilişkin %12.8, "Ticaret alanlarının erişilebilir olmadığına" ilişkin de %18.6 oranında bir memnuniyetsizliğinde olduğu da tespit edilmiştir. Çalışmada, kentlerin sağlıklı bir şekilde yerleşimine katkıda bulunmak ve kullanıcılarında ihtiyaçlarına cevap veren kentsel ticaret alanları için öneriler sunulmuştur.

**Anahtar Kelimeler:** Kent Planlama, Kentsel Ticaret Alanı, Erzincan, Kullanıcı Memnuniyeti, Ticaret

## **USER SATISFACTION IN THE URBAN TRADE AREAS: THE CASE OF ERZİNCAN**

### **ABSTRACT**

Cities are structured environment in which people's communal life. The characteristic feature of many cities throughout history is that it is a central area in which economic, social, cultural and administrative activities take place, and this area is identified with the image and identity of the city. Urban trade areas contains a wide range of that from accessibility to sidewalk, from street widths to parking. This function areas should be done in coordination with of urban development plans. In this study, trade areas in the Erzincan center was examined according to the principles of physical planning, trade areas satisfaction from living in different district in the city center was evaluated by a survey. According to application study; it was also found that the satisfaction level of "Trade areas competence and accessibility" was sufficient (2.641), but it was found to be dissatisfied with 12.8% "Trade areas not sufficient" and 18.6% "Trade areas not accessible". In this study for the city is presented proposals that for urban settlements are contributing to a healthy way and for urban transport areas that meet the needs of users.

**Keywords:** Transportation, Urban Planning, Urban Trade Area, Erzincan, User Satisfaction, Trade

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**DETERMINATION OF WATER ABSORPTION PROPERTIES OF NATURAL BUILDING  
STONES AND THEIR RELATION TO POROSITY**

**ABSTRACT**

It is known that rock-water interaction has important effects on the physicommechanical properties of rocks. In this study, 20 rock with different origins were used. The water absorption properties of rocks were determined by immersion and capillarity-effected water absorption experiments. The rocks are classified according to the water absorption properties of the capillary effect. The relationships between water absorption properties and porosity properties of rocks were evaluated by regression analysis. The results obtained are given in the form of regression equations.

**Keywords:** Building Stone, Water Absorption, Capillarity,  
Porosity, Building

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### **HASANKEYF KİREÇTAŞLARININ SUDA DAĞILMAYA VE TUZ KRİSTALLEŞMESİNE KARŞI DİRENCİNİN ARAŞTIRILMASI**

#### **ÖZ**

Hasankeyf ve çevresi yüzey morfolojisi, mağaraları ve tarihi yapılarıyla, Türkiye'nin önemli kültürel miraslarından biridir. Kireçtaşlarından oluşan bu kültürel mirasın önemli bir bölümü Ilısu Baraj Gölü'nün suları altında kalacaktır. Baraj gölü rezervuar alanında sular altında kalacak yüzlerce mağaranın ve baraj gölünü çevreleyen kayaçların, göl suyundan etkilenme derecesinin belirlenmesi, gerekli önlemlerin alınması açısından büyük önem arz etmektedir. Bu çalışmada, yapı taşı olarak da kullanılan tarihi Hasankeyf bölgesindeki kireçtaşlarından alınan örneklerin suya ve tuza karşı dirençleri sırasıyla suda dağılma dayanımı ve tuz kristalleşmesi deneyleri ile belirlenmiştir. Elde edilen veriler, Hasankeyf kireç taşlarının sudan ve tuzdan önemli derecede etkilendiğini göstermiştir.

**Anahtar Kelimeler:** Hasankeyf Kireçtaşları, Suda Dağılma Dayanım Deneyi, Tuz Kristalleşmesi, Kireçtaşı, Mardin

### **INVESTIGATION OF RESISTANCE OF HASANKEYF LIMESTONES TO SLAKE DURABILITY AND SALT CRYSTALLIZATION**

#### **ABSTRACT**

Hasankeyf and surrounding surface morphology, with caves and historic buildings, is one of Turkey's significant cultural heritage. A significant part of this cultural heritage consisting of limestones will be under the influence of the Ilısu dam reservoir. The determination of the degree of impact of the lake water on the hundreds of caves and the rocks surrounding the dam lake that are under the influence of dam reservoir is of great importance in terms of taking the necessary precautions. In this study, the resistance of the samples taken from limestones in the historical Hasankeyf region, which is also used as building stone, to water and salt were determined by using slake durability and salt crystallization experiments, respectively. The data obtained show that Hasankeyf limestones are significantly affected by water and salt.

**Keywords:** Hasankeyf Limestones, Slake Durability Test, Salt Crystallization, Limestone, Mardin



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# INVESTIGATION OF THE IONIC CONDUCTIVITY WITH IMPEDANCE SPECTROSCOPY OF 8YSZ DOPED WITH $\text{La}_2\text{O}_3$

## ABSTRACT

The effect of  $\text{La}_2\text{O}_3$  addition on phase structure and ionic conductivity of 8 mol% yttria-stabilized cubic zirconia (8YSZ) was investigated using impedance spectroscopy, X-ray diffraction (XRD), and scanning electron microscopy (SEM). The 8YSZ powder was doped with 0-15 wt%  $\text{La}_2\text{O}_3$  using a colloidal process. The undoped and  $\text{La}_2\text{O}_3$ -doped 8YSZ specimens were sintered at 1550°C for 1 h. XRD results showed that  $\text{La}_2\text{O}_3$  dissolved up to 5 wt% content in the 8YSZ matrix. However, when more than 5 wt%  $\text{La}_2\text{O}_3$  was doped into 8YSZ, it did not dissolve in the 8YSZ matrix. Furthermore, it was found that  $\text{La}_2\text{O}_3$ , which is insoluble in the matrix of 8YSZ, reacted with  $\text{ZrO}_2$ , and formed the pyrochlore  $\text{La}_2\text{Zr}_2\text{O}_7$  compound. The ionic conductivity of the specimens was measured using a frequency response analyzer in the frequency range of 100 mHz-13 MHz and in the temperature range of 300-800°C.  $\text{La}_2\text{O}_3$  caused an increase in the grain boundary conductivity of 8YSZ at the temperature range of 300-800°C, with the presence of a good conductor  $\text{La}_2\text{Zr}_2\text{O}_7$  prochloric phase at grain boundaries.

**Keywords:** 8 mol% Yttria-Stabilized Cubic Zirconia (8YSZ), Impedance Spectroscopy, Ionic Conductivity,  $\text{La}_2\text{Zr}_2\text{O}_7$ ,  $\text{ZrO}_2$



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## COMPARISON OF KEYING METHODS USED IN SPEED CONTROL OF INTERNAL MAGNET SYNCHRONOUS MOTOR

### ABSTRACT

In this paper, the methods used to control intensively studied voltage source inverters were compared. Three well-known techniques, space-vector pulse width modulation (SVPWM), third harmonic add modulation (THIPWM) and sinusoidal pulse width modulation (SPWM) are extensively analyzed. A simple SVPWM algorithm has also been implemented. In this technique, the two closest vectors are selected, the sequencing and transition times are calculated by using the vector position. The selected switching method to control the inverter is effective in suppressing harmonic components while producing the ideal output voltage. In this study, SVPWM, THIPWM and SPWM are explained with simulation algorithm by using MATLAB/SIMULINK. It has been shown that the space vector pulse width modulation and the third harmonic addition PWM that have no difference except the implementation method, produce a more efficient output voltage and less total harmonic distortion when compared to sinusoidal PWM.

**Keywords:** Space-vector Pulse Width Modulation (UVDGM),  
The Third Harmonic Insertion Modulation (THIPWM),  
Sinusoidal Pulse Width Modulation (SPWM),  
Internal Magnet Synchronous Motor, Speed Control

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### **HARMONİK EKLEME YÖNTEMİ İLE FIRÇASIZ DC MOTORUN (BLDC) HIZ DENETİMİ** **ÖZ**

Günümüzde, ev aletlerinde, bilgisayar sistemlerinde, tıp elektroniğinde, uzay teknolojilerinde, askeri alanlarda, robotik sistemlerde v.b. çoğunlukla fırçasız doğru akım motorları tercih (BLDC) edilmektedir. BLDC motorlar; yüksek maksimum momente ve verime, uzun ömre ve hassas bir şekilde hız kontrol edilebilirliğine sahip olduklarından uygulamalarda sıklıkla kullanılmaktadır. BLDC motorların çalışması; fırçalı DC motorların çalışma karakteristiğine benzemektedir. BLDC motorların rotorunda bulunan sabit mıknatıslar uyarımı sağladığından dolayı fırça ve kollektör düzeneklerine gerek yoktur. Bu olumlu özelliklerinin yanında, motoru kontrol etmek için harici bir güç elektroniği devresine ve komütasyonu sağlamak için gerekli konum bilgisi için pozisyon sensörüne ihtiyaç duyulmaktadır. BLDC motorun hız denetimi yapılırken akımda oluşan dalgalanmadan dolayı üretilen torktaki dalgalanmanın fazla olduğu bilinmektedir. Bu çalışma ile moment dalgalanmasını azaltmak için harmonik ekleme yöntemi ile BLDC motorun hız denetimi yapılması amaçlanmıştır. BLDC motorun matematiksel modeli MATLAB/Simulink'de oluşturularak, kontrolün simülasyonu yapılacaktır.

**Anahtar Kelimeler:** Fırçasız DC Motor (BLDC), Hız Denetimi, Harmonik Ekleme, MATLAB/Simulink, Modelleme

### **BRUSHLESS DC MOTOR (BLDC) SPEED CONTROL WITH HARMONIC INJECTION METHOD**

#### **ABSTRACT**

Nowadays, brushless direct current motors (BLDC) are often preferred (used) in home appliances, computer systems, medical electronics, space technology, military applications, robotics systems, etc. BLDC motors are frequently used in applications since they have features such as high momentum, efficiency, long lifetime, and precise speed control. BLDC motors working principle is similar with brushed DC motors working characteristic. Since the permanent magnets in the rotor of the BLDC motors provide excitation, there is no need for brush and collector assemblies. Besides to these positive features, an additional power electronic circuit is necessary to control motor; and in order to get the position information to maintain commutation an additional position sensor is required. It is known that the fluctuation in the torque is excessive due to the current ripple when the speed control of the BLDC motor is performed. In this study, it is aimed to perform speed control of BLDC motor with harmonic injection method in order to reduce torque ripple. The mathematical model of the BLDC engine has been created in MATLAB/Simulink in order to make the simulation of control.

**Keywords:** Brushless DC Motor (BLDC), Speed Control, Harmonic Insertion, MATLAB/Simulink, Modelling

|             |                                                                              |
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## CHANGING LINEAR AND LOGARITHMIC LIGHT LEVELS FOR DALI LED DRIVERS

### ABSTRACT

In this paper, it will be discussed digitally addressable lighting interface (DALI) with LED integrated and its dimming either linearly or logarithmically with pulse with modulation. It also will be mentioned linear and logarithmic dimming usage and purpose. When using DALI LED drivers, they are mounted separately for each armature. In this way, access to each DALI LED driver is provided from the central system when it is needed and It keeps the light at the desired level with DALI commands. DALI LED drivers provide linear or logarithmic control of the light level of these luminaires at the desired level. This paper will discuss the development of an LED driver whose light level can be adjusted linearly and logarithmically.

**Keyword:** DALI, Linear, Logarithmic, LED Driver, Dimming Curve

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### **TORK MOTORU HIZ KONTROLÜNDE ALTI ADIM ANAHTARLAMA VE UZAY VEKTÖR DARBE GENİŞLİK MODÜLASYONU YÖNTEMLERİNİN KARŞILAŞTIRILMASI**

#### **Öz**

Sürekli mıknatıslı senkron motorlar yüksek momente, verime, uzun ömre ve hassas hız kontrol edilebilirliğe sahiptir. Bu özelliklerinden dolayı günümüzde sürekli mıknatıslı senkron motorların endüstride kullanımı giderek artmaktadır. Motorların kontrolünü sağlamak için çok sayıda kontrol yöntemleri geliştirilmiştir. Bu çalışmada, düşük hız ve yüksek torklarda çalışan senkron motorların hız kontrolünde en çok kullanılan tekniklerden olan altı-adım anahtarlama(six-step) ve uzay-vektör darbe genişlik modülasyon(UVDGM) kontrol yöntemleri karşılaştırılmıştır. Sistemin matematiksel modeli MATLAB/Simulink'de oluşturularak, kontrol simülasyonu yapılmıştır. Sürekli mıknatıslı senkron motorun UVDGM tekniği ile hız kontrolünde akımdaki dalgalanmanın altı adım anahtarlama tekniğine göre daha az olduğu gözlenmiştir. Akımdaki dalgalanmanın az olması sayesinde UVDGM tekniğinde kontrol sağlanırken torktaki dalgalanmanın az olduğu ve tork kalitesinin daha iyi olduğu gözlenmiştir.

**Anahtar Kelimeler:** Altı Adım Anahtarlama, Uzay Vektör Darbe Genişlik Modülasyon, Sürekli Mıknatıslı Senkron Motor, Hız Kontrolü, MATLAB/Simulink



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**REVIEW ON CONSTRUCTION PROJECT MANAGER SELECTION CRITERIA AND METHODS  
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**ABSTRACT**

The success of a construction project depends on several critical success factors. One important factor is supervision by a competent project manager with proven leadership skills. Therefore, the selection of a project manager for construction projects is, by nature, one of the most important and, at the same time, most complicated decisions to be made. Selecting the best project manager among many candidates is a multi criteria decision making (MCDM) problem. Choosing a project manager for a construction project is a critical project decision. The scope of this paper deals with the decision making process concerning selection of the finalists for position of construction project manager. This article reviewed the corresponding methods in different stages of multi-criteria decision-making for project manager selection. Also, it provides an overview on various criteria used. This paper provides useful insights into the MCDM methods for project manager selection and suggests a framework for future attempts in this area for academic researchers and practitioners.

**Keywords:** Construction, Decision Making, Multiple Criteria  
Decision Making, Project Manager Selection,  
Project Management



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### SİDERİT AGREGASI İLE ÜRETİLEN BETONLARIN HVL VE TVL DEĞERLERİ ÖZ

Radyasyon günümüzde birçok yararlı amaç için kullanılmaktadır. Radyasyonun yararlı yönü olduğu gibi, canlı organizmalara zarar verme özelliğinden dolayı, kullanımı sırasında bu zararlı yönü de dikkate alınmalıdır. Tecrübeler göstermiştir ki eğer, radyasyonun etki ve tehlikeleri iyi anlaşılır ve bu tehlikeleri minimuma indireyecek önlemler alınırsa radyasyon ile güvenli bir biçimde çalışmak mümkündür. Bu çalışmada TS EN 802 ye uygun dökülmüş normal beton ile agrega miktarları hacimce sırasıyla %20, %40, %60, %80, %100 oranında azaltılıp yerine aynı oranlarda Siderit madeni ilave edilerek elde edilen ağır beton karışımlarının radyasyon tutuculuğu; Yarı Değer Kalınlığı (HVL) ve Onda bir Değer Kalınlığı (TVL) cinsinden incelenmiştir.

**Anahtar Kelimeler:** Radyasyon, Siderit, Beton, HVL, TVL

### HVL AND TVL VALUES OF CONCRETES PRODUCED WITH SIDERITE AGGREGATE

#### ABSTRACT

Penetrating radiation serves many useful purposes, but it can also damage or destroy living organism, and these effect must be considered when radiation is used. Experience has shown that radiation can be used safely if its dangers are understood and and work with radiation to planned to minimize these dangers and eliminate unnecessary exposure. For this purpose, with the normal concretes prepared according to TS EN 802, amounts of aggregates were reduced at the rates of 20%, 40%, 60%, 80% and 100% by volume respectively and heavy concrete mixes were prepared that were obtained by adding Siderite at the same rates in their place and the radiation holdings of heavy concrete obtained in terms of Half-Value Layer (HVL) and Ten-Value Layer (TVL).

**Keywords:** Radiation, Siderite, Concrete, HVL, TVL



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## PERFORMANCE STUDY ON CEMENTS

### ABSTRACT

Protection of concrete against physical, chemical and mechanical effects is directly associated with the properties of materials mixed into its compound and mixture. Among them, cement has a separate place. When cement is investigated both as a compound of the concrete and the paste, it is quite significant in terms of durability, service life and aesthetics. The greatest problem of cement usages is cracks negatively affecting both the subjective properties and the properties of aggregate used with it. The type and amount of cement used in a concrete, physical and chemical properties, hydration process, mixing method and technique, its relation with aggregate and water and additives in depending on the time factor, have an effect both on functionality and visual performance. In this study, keywords such as adherence, workability and cracking were taken into the center by dwelling on the cement subject, and the possible problems were offered a solution in terms of cause and effect relationship.

**Keywords:** Cement, Concrete, Physical and Chemical Properties, Cracks, Hydration

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## **BORAKS PENTAHİDRATLI BETONLARIN MEKANİK VE FİZİKSEL ÖZELLİKLERİ**

### **ÖZ**

Dünya rezervlerine bakıldığında bor madeni bakımından ülkemizin oldukça zengin bir ülke olduğu görülmektedir. Yapılan literatür taramasında beton da Boraks Pentahidrat ( $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ ) kullanımı ile ilgili az sayıda araştırmanın olduğu görülmüştür. Bu çalışmada, bünyesinde %48-49 oranında bor ihtiva eden boraks pentahidrat beton içerisinde çimento ile %5, %10, %15, %20 ve %25 oranında ağırlıkça ikame edilerek beton numuneler dökülmüş, avantaj ve dezavantajları deneysel olarak incelenmiştir. Bu amaçla beton da su emme, yüzey sertliği, basınç dayanımı ve yüksek sıcaklık etkisi özelliğinin tespiti için mekaniksel ve fiziksel deneyler yapılmıştır. Yapılan bu deneylerin sonucunda beton da boraks pentahidrat kullanımı ile birlikte betonda su emme yüzdesinin arttığı, yüzey sertliğinin azaldığı, basınç dayanımının düştüğü ve yüksek sıcaklık etkisi altında mukavemetinde azalma olduğu gözlenmiştir.

**Anahtar Kelimeler:** Boraks Pentahidrat, Beton, Bor,  
Su Emme, Basınç Dayanımı

## **MECHANICAL AND PHYSICAL PROPERTIES OF BORAX PENTAHYDRATE CONCRETE**

### **ABSTRACT**

When we look at world reserves, it is seen that our country is rich in terms of boron mine. In the literature survey, it has been found that there are a few studies on the use of borax pentahydrate ( $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ ) in concrete. In this study, the concrete samples were poured into the borax pentahydrate concrete containing 48-49% boron in terms of cement with 5%, 10%, 15%, 20% and 25% by weight of cement and the advantages and disadvantages were experimentally investigated. For this purpose, mechanical and physical experiments were carried out to determine water absorption, surface hardness, compressive strength and high temperature effect properties in concrete. As a result of these experiments, it has been observed that with the use of borax pentahydrate in concrete, the percentage of water absorption in the concrete increases, the surface hardness decreases, the pressure resistance decreases and the strength decreases under high temperature effect.

**Keywords:** Borax Pentahydrate, Concrete, Boron,  
Water Absorption, Pressure Resistance

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## CFD ANALYSIS OF SCOUR AT DOWNSTREAM OF RECTANGULAR WEIR WITH FREE OVERFALL

### ABSTRACT

It is necessary to build high head dams to balance energy requirement for developing world technology. However, the problem of scouring, which threatens the stability of dams with increasing height of fall, is an important consideration that should not be overlooked. In this study, the scour at downstream of free overfall dams has been investigated with numerical analysis that known as computational fluid Dynamics (CFD). The classical rectangular weirs have been used for analyzes and experimental runs. The Flow3D software and k- $\epsilon$  turbulence model have been utilized for numerical analysis. The equilibrium scour depth has been determined with different head highs (0.25m, 0.50m, and 1.00m) and different discharge (15, 20, and 30L/s). A sediment layer of 2mm diameter has been laid at downstream of the dam. Then obtained simulation results have been compared with experimental results. According to results, the relative error rate has been varied between %1-%15. The numerical results agree well with the experimental results.

**Keywords:** Free Overfall, Classical Rectangular Weir, Scour, Flow3D, CFD



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## RESEARCH ON THE IMPORTANCE OF GROUNDWATER

### ABSTRACT

Approximately 70% of the Earth's surface is covered with water. 97.5% of these waters are salt water and the remaining 2.5% is composed of fresh water. Although there is such a large water mass on earth, only 0.3% of fresh water is available on the surface at any time. Underground water has been increasingly important because of the distinct decrease in surface water, pollution and excessive consumption. Underground water is formed by the surface waters filling the gaps of the underground porous layers or fractured and faulted rocks. Underground water is used for many purposes, such as drinking and using water supply, electric power generation, irrigation of agricultural areas. It should not be forgotten that underground waters like all sources are not inexhaustible. Excessive operation of unconsciously opened drilling wells and drought resulting from global warming are adversely affecting the underground water resources. Many countries have come out regulations and laws to use of groundwater resources in the best possible way and to protection of potential. However, most of these countries do not have a systematic monitoring network for the continuous control of underground water fields, current values and quality. For this reason, it is not possible to create an action plan for the sustainable use of groundwater. From this information, the underground water resources provided by about 95% of the fresh water should be used in a planned way in this period when the earth is facing the drought and water problem. Otherwise, there will be a big water problem all over the world.

**Keywords:** Underground Water, Drought, Fresh Water,  
Global Warming, Pollution





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## USE OF PLUNGING WATER JETS IN FLOTATION CELLS

### ABSTRACT

The necessity of processing very fine ores in the liberation size with the depletion of high-grade ore deposits in mining reveals the importance of flotation. Flotation is a method of enriched by the launching of metallic and non-metallic very thin size ores. There are many methods used for ore enrichment in the mining sector. The main purpose of these flotation methods is to create air bubbles inside the cell. The thin grains in the liquid are transported to the liquid surface by holding the air or air bubbles. As a result of the investigations, it has been determined that flotation efficiency is increased by increasing bubble number and decreasing bubble size and very fine sized particles are enriched efficiently. For this reason, the amount, size and distribution of air bubbles are of great importance in flotation methods. In recent years, the water jets widely used in the ventilation of water are distributing the air into small diameter bubbles in water mass and constitutes a two-phase zone. The results have shown that water jets can be efficiently used by integrating into flotation cells.

**Keywords:** Water jet, Flotation, Bubbles, Ventilation, Mining



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## DESIGN DEFICIENCIES OF BOTTOM OUTLET

### ABSTRACT

Dams are water structures which built to supply water needs of people, irrigation to the agricultural area and generating electricity. Dramatic social catastrophes are emerging as well as financial losses in the case of failure/collapsing of dams, which have crucial economic importance. Investigation about failure or collapsed dams shows that main reason of destroying dams is due to the lack of knowledge in the design process of dams. There are also important knowledge deficiencies in the design of the outlet works. Outlet works are hydraulic structures constructed under the dam body to completely discharge the dam, to reduce the spillway capacity, to adjust the water to be left to the downstream of the river. The outlet works are under the influence of high flow rates. The pressure values on the surface of the outlet work decrease, and become below the vapor pressure due to these high flow speed. When these values are reached at some points along the outlet work, hydrodynamic forces may reveal, which can create cavitation damage on the surface. In order to prevent cavitation damage, the air vent is placed at the downstream of gate where the flow rate is high. By means of the air vent, the air in the atmosphere is drawn into the system and the pressure of the gate downstream is kept at more secure levels. In order to prevent cavitation damage, the air entering the system through the air gap mixes with the water to form a two-phase flow, which causes the flow volume to increase. The flow volume must be determined so that the stilling basin placed in the downstream and outlet works can be designed in a healthy way. In order to determine the flow volume, the amount of air drawn into the system must be predictable. Studies have been done, and formulations have been developed to predict the amount of air. The studies show that the amount of air withdrawn is related with Froude number, conduit geometry, duct geometry, ratio of duct cross-sectional area to air-stack cross-sectional area, location of air stack, and diameter of air-stack. However, in the case of the system parameters change, equations obtained from the studies do not give appropriate results. It is necessary to determine the flow volume by predicting the amount of air entering the system from the air hole for the correct design of the outlet works structures which are of great importance for dams. It is also necessary to investigate the hydrodynamic effects of the two-phase flow. All these operations are of great importance for the correct design of the outlet work structures.

**Keywords:** Outlet Work, Hydraulic Structures, Cavitation, Two-Phase Flow, Air Entrainment

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### CNC FREZE TEZGAHINDA FARKLI İŞLEME YÖNTEMLERİNİN KESİCİ TAKIM ÜZERİNE ETKİSİ

#### ÖZ

Bu çalışmada, CAM paket programında ortak bulunan ve endüstride sıklıkla kullanılan "Zig-Zag", "Zig" ve "Trochoidal" den oluşan üç farklı işleme yönteminin takım aşınmasına olan etkisi incelendi. Öncelikle CAD programında numunelerin 3D modeli üretildi. Üretilen modeller CAM paket programına aktarılarak takım yolları üretilerek tezgah için "g-code"ları türetildi. Bu kodlara göre CNC freze tezgahında modeller işlendi. Her bir kesici takımında meydana gelen aşınma kaybı belirlendi. Ayrıca modelin farklı bölgelerinden alınan numunelerin yüzey pürüzlülüğü ve farklı takım yollarının işleme süresi tespit edildi. Elde edilen verilere göre kesici takım ömrü için en uygun takım yolu "Trochoidal" işleme stratejisi olduğu belirlendi.

**Anahtar Kelimeler:** Takım Yolu Stratejileri, CNC Freze Tezgahı, Takım Ömrü, İşleme Süresi, Trochoidal

### EFFECT OF DIFFERENT TOOL PATH STRATEGIES ON CUTTING TOOLS ON CNC MILLING MACHINE

#### ABSTRACT

In this study, the effects of three different machining methods, Zig-Zag, Zig and Trochoidal, which are commonly used in the CAM package program and which are frequently used in the industry, were examined. The produced models were transferred to the CAM package program and "g-codes" were created for the loom by producing tool paths. According to these codes, models were manufactured on the CNC milling machine. Wear loss was found in each cutting tool. In addition, the surface roughness of samples from different regions of the model and the machining time of different tool paths were determined. According to the obtained data, it was determined that the most suitable tool path for cutting tool life was "Trochoidal" machining strategy.

**Keywords:** Tool Path Strategies, CNC Milling Machine, Tool Life, Processing Time, Trochoidal

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## İÇTEN BASINCA MARUZ KALAN KOMPOZİT BASINÇLI KAP TASARIMI VE ANALİZİ

### ÖZ

Bu çalışmada kompozit kapların üretimi ve analizi amaçlanmıştır. Tasarım aşamasında kompozit malzemelerin tasarımı için gerekli olan malzemeler; Cam elyaf/Epoksi, Karbon elyaf/Epoksi ve Kevlar elyaf/Epoksi malzemesi olarak seçilmiştir. Her malzeme için (30°-30°), (45°-45°), (60°-60°) ve (75°-75°) anti-simetrik oryantasyon açıları kullanılmıştır. Kabin tasarımında, toplam cidar kalınlığı 3mm olarak tanımlanmıştır. Cidar kalınlıkları, 10 ve 20 tabakalı olacak şekilde, SOLIDWORKS paket programı kullanılarak kaplar modellenmiştir. Modellenen kaplar daha sonra, sonlu elemanlar metodunu kullanarak analiz yapan ANSYS WORKBENCH 14.0 paket programı kullanılarak, maksimum şekil değiştirmeler ve maksimum gerilmelerin tespiti amacıyla, analiz edilmişlerdir. Çözümler yapılırken uygulanmış olan basınç; kabin test basıncı olarak 1.65MPa bir basınç, kabin iç yüzeyinden hidrostatik olarak tanımlanmış ve çözümler yapılmıştır. Bu çözümlerde elde edilen Von-mises gerilmeleri ve toplam deformasyonlar incelenerek, hangi tasarımın optimum ve uygulanabilir olduğu belirlenmiştir.

**Anahtar Kelimeler:** Basınçlı Kap, Kompozit Malzemeler, Gerilme, Şekil Değiştirme, ANSYS

## COMPOSITE PRESSURE CYLINDER DESIGN AND ANALYSIS EXPOSED FROM INTERNAL PRESSURE

### ABSTRACT

In this study, production and analysis of composite containers were aimed. Materials required for the design of composite materials during design phase; Glass fiber/Epoxy, Carbon fiber/Epoxy and Kevlar fiber/Epoxy material. For each material, anti-symmetrical orientation angles (30°-30°), (45°-45°), (60°-60°) and (75°-75°) were used. In cabinet design, total wall thickness is defined as 3mm. The wall thicknesses were modeled as containers with 10 and 20 layers, using the SOLIDWORKS package program. The modeled containers were then analyzed for maximum shape changes and maximum stresses using the ANSYS WORKBENCH 14.0 package program, which analyzes using the finite element method. The pressure applied when the solutions were made; a pressure of 1.65MPa was defined hydrostatically from the inner surface of the vessel and solutions were made. Von-mises stresses and total deformations obtained in these solutions were examined and it was determined which design was optimum and applicable

**Keywords:** Pressure vessel, composite, tensile, strain, ANSYS

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## DEVELOPMENT OF THE AN ELECTRIC CARRIAGE VEHICLE FOR DISABILITY PEOPLE

### ABSTRACT

The electric vehicle is a transport means with electric motor powered by energy stored in batteries. The electric vehicles have many advantages compared by traditional vehicle like low noise, zero emission, light weight, etc. The electric vehicles are designed to operate with more energy efficient where mechanical power transmissions are absent. The objective of this paper is to design and develop an electric carriage vehicle for disability people with highly compact to enter the buildings and structures like industries, hospitals, indoor and outdoor place. The vehicle is made with light weight in order to increase its driving range and also to carry a better weight. In this electric carriage vehicle are installed different sophisticated devices as well as sensors through which the driver (who is in this case is a disabled person) has the easiest and most comfortable driving experience, installing a parking sensor, a camera that will enable a safer ride from behind and other different sensors, signal lights, etc.

**Keywords:** Electric Vehicle, Sensor, Electric Motor,  
Pollution, Disability People



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## INVESTIGATION OF THE INFILTRATION OCCURRING IN DAMS IN TERMS OF GEOTECHNICAL AND HYDRAULIC ENGINEERING

### ABSTRACT

Dams are very important structures in terms of country economy. These structures, which have been constructed for many years and have high cost, must serve safely in accordance with the purpose of construction. As a result of the researches, it has been determined that 28% of the demolitions of the dams stemmed from infiltration and piping in the body of the dams and on the foundation soil. Infiltration; the water in the upstream part of the dam is defined as continuous movement towards the downstream part in an uncontrolled way. Many studies have been carried out and many methods have been developed in order to be able to analyze such engineering problems and to minimize their effects. As a result of these studies it has been determined that infiltration occurring the dam body or reservoir can be ignored as long as they do not cause any safety problems. However, due to the global climate change, the operational losses caused by these leaks are of great importance. Therefore, the infiltration problems occurring in such structures should be examined more carefully.

**Keywords:** Dam, Infiltration, Geotechnical, Hydraulic, Piping



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## REDUCTIONS IN THE BEARING CAPACITY OF THE BRIDGE FOUNDATION AS A RESULT OF HYDRAULIC EFFECTS

### ABSTRACT

Bridges have more impact on dynamic loads such as wind, earthquake and flood when compared to other reinforced concrete structures. This increases the risk of damage to the bridges. Therefore, hydraulic, structural and geotechnical factors should be carefully considered in the design of bridges. Bridges built on rivers are mostly damaged during major floods, or damage can occur to prevent their use. In such a case, there is a large amount of material damage, especially loss of life, and there are obstacles in the traffic flow until the bridge is re-opened. In order not to encounter such problems, or to minimize the most damage, all damages that may occur during the construction and use of the bridges should be initially estimated. In particular, the hydraulic forces which will affect the foundation of the bridges on the rivers should be investigated in detail and the reduction of the foundation bearing capacity which can occur on the foundation of the bridge as a result of the structure-water-soil interaction. In this study, as a result of hydraulic forces, depending on different ground parameters, it is summarized how bridge foundation bearing capacity values change, what should be acceptable settlement and what should be considered in design.

**Keywords:** Structure-Water Interaction, Structure-Soil Interaction, Bridge Foundation, Bearing Capacity, Hydraulic Effects



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## INVESTIGATION OF THE WORKS ON PILED RAFT FOUNDATIONS

### ABSTRACT

As a result of population growth and immigration from rural areas housing needs always increases. Because of this construction of high rise buildings and building loads are increased. Foundation is a part of a building or structure that transmits structural loads to the earth and supports the superstructure. High building loads caused settlement and failure especially on soft soils. If settlements exceeds limitations, building system damaged or failure. For this reason deep foundations are used. Deep foundations are structural elements that transfer loads through weak, compressible soils to underlying competent soils or rock. Nowadays most common type of deep foundations is pile foundations. In literature, researches on pile foundation-clayey soil interaction are very rare. Soil-pile foundation interaction problems are investigated mostly on pure sand soils. Pure sand or pure clay soils are very rare among natural soils. Most soils consist of mixtures of cohesive and cohesionless soils. The studies on these pile foundations have been reviewed in the literature and especially the experimental works carried out in the laboratory have been examined. These studies in the literature are summarized.

**Keywords:** Piled Raft Foundation, Bearing Capacity,  
Pile Soil Interaction, Clay, Deep Foundation





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## INSECT REPELLENT ROBOT FOR AGRICULTURAL APPLICATIONS

### ABSTRACT

An agricultural application (farming) is one of the oldest professions for humankind. On the other hand, there are so many methods applied to keep plants health and condition in full life cycle to achieve sustainable without any chemical effects to human labor and to the environment as an output. This study represents design, build and testing of a low cost semi-autonomous robot to achieve agricultural tasks more efficient and precise by using current technological advancements. Main goal of this project is to design, fabricate, program a low-cost mobile robotic system to perform pesticide spraying and insect repelling tasks in the field efficiently without seeking any human interaction during operation.

**Keywords:** Index Terms—Agricultural Robots, Semi-Autonomous Robots, Autonomous Spraying, Agricultural Robots

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## EXPERIMENTAL STUDY OF FREE JET SCOUR BELOW RECTANGULAR WEIRS

### ABSTRACT

The impact on the scour of free jet scour below weirs is an important problem in hydraulic engineering. The geometry of the scour that will form at the downstream of different weir types is different from each other. The purpose of this study is to investigate the effect of scour geometry for free jet scour below rectangular weir. Local scouring at rectangular weirs has been studied in a large hydraulic model in the laboratory in detail. Maximum scour depth, width of scour hole, length of the scour hole, ridge height, location of maximum scour depth and upstream slope of scour hole have been measured for each tested weir. In experimental runs, drop height and discharge have been changed at certain intervals. The drop heights are 25, 50, 100 and 167cm; and the discharges are 15, 20, 25 and 30L/s. Thus, comprehensive experiments have been conducted for free jet scour below rectangular weirs. Obtained findings can reliably be used for design of hydraulic structure.

**Keywords:** Free Jet Scour, Hydraulic Structures, Rectangular Weir, Check Dams, Dam Safety



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**INVESTIGATION OF MECHANICAL PROPERTIES OF HIGH-PERFORMANCE  
LIGHTWEIGHT CONCRETE WITH PUMICE AGGREGATE**

**ABSTRACT**

Conventional concretes, which have a lot of usage in practice, have huge unit weights. Lightweight concretes have less weight than conventional concretes. By using lightweight concrete in the reinforced concrete structures, the total amount of concrete to be used in the buildings can be reduced, the buildings can be lightened and the total weight of the building can be reduced. High-performance concrete is needed to build permanent and long-lasting structures. The aim of this study is to assess comprehensively the previous studies on high-strength lightweight concrete and to present a different perspective for this subject. In the current study, the mechanical properties of high-performance lightweight concretes with different mixing ratios were examined. Compressive strengths of conventional concretes and lightweight concretes were compared. In addition, the compressive strengths of the concrete specimens produced in the building materials laboratory were tried to be estimated from statistical analysis. A good fitting was obtained between experimental results and predicted results.

**Keywords:** High-performance Lightweight Concrete, Strength Properties, Mechanical Properties, Compressive Strength, Statistical Analysis



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## CASE STUDY ON THE IMPLEMENTATION OF THE AUTONOMOUS DRIVING SYSTEMS

### ABSTRACT

The main purpose of this paper is to study the functioning of self-driving cars, those technologies and functions that enable the application of intelligent or automated systems, enabling a car to be self-driven. Self-driving cars in the near future will be safer, more comfortable, will not need a driver as they will drive themselves and try to get zero life-loss from accidents. With the application of intelligent vehicle systems, you can achieve greater driving safety while providing greater assistance to the driver. Telematics technologies such as GPS etc. are also of great importance. For the operation of automotive without a driver, technologies already exist, hardware components have enough. Software and roadside testing are the issues to be solved that include learning the real-life behavior and the problems faced by drivers every day. These issues need to be regulated until the car market without a driver. Automated systems such as vehicle speed control, parking, traffic signal warning and vehicle holding assistance, etc., are now available in new vehicles that are in use. These automated systems are the basis for building an automated, robotic, and self-driven automobile. For the construction of a self-driving car many companies are working from Mercedes Benz, BMW, Volvo, Honda, Google, Tesla and others. In this paper, we have featured two self-driving cars developed by Tesla and Google, and we have noticed that the self-steering pedal and steering wheel completely autonomous by Google is being tested and expected to be fully operational by 2020, as well as the car with the autopilot option from Tesla, which has self-driving functions only on highways unlike Google. Tesla cars are now on sale with the autopilot option and Tesla is expected to build a self-propelled vehicle by 2020. Self-driving cars built up so far, almost all are not functional under tough weather conditions until the year 2020 and have warned many construction companies to build self-driving cars. For them to come up with fully autonomous functional automobiles is expected to be solved and this issue. With the introduction of self-driving vehicles in the market, expectations are that there will be no loss of life from traffic accidents; reduce environmental pollution globally, as all these vehicles are planned to be electric etc.

**Keywords:** Self-driving Cars, Assisting Systems,  
Automated Systems, Tesla, Google



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### DEPREM ETKİSİ ALTINDA BETONARME ÇERÇEVE SİSTEMLİ YAPILARDAKİ KİRİŞ SÜREKSİZLİĞİNİN YAPI PERİYODLARINA ETKİSİ

#### ÖZ

Bu makalede salt çerçeve sistemli bina modellerindeki kiriş süreksizliğine ait yapı periyodları incelenmiştir. Deprem Bölgelerinde Yapılacak Binalar Hakkında Yönetmelik (DBYBHY-2007) doğrultusunda "mod birleştirme yöntemi" ile analiz edilmiştir. Bu bağlamda salt çerçeve modelde 4, 6, 8 katlı yapı örnekleri dört ayrı durumu (düzenli, çıkmalı, çıkma ve cephe hareketli, düzensiz) olarak ele alınmıştır. Aradaki farklar düzenli-düzensiz durumuna ve katlara göre birinci periyod değerleri karşılaştırılmıştır.

**Anahtar Kelimeler:** Kiriş Süreksizliği, Yatay Düzensizlikler,  
Deprem Analizi, Çerçeve Sistem, Yapı Periyodu

### THE EFFECT OF BEAM DISCONTINUITIES IN REINFORCED CONCRETE FRAME STRUCTURES TO CONSTRUCTION PERIOD UNDER EARTHQUAKE LOADS

#### ABSTRACT

In this study, the structure periods of the beam discontinuities in the frame models with frame structures were examined. Beam discontinuities were analyzed by "Code for the Buildings in Earthquake Zones in 2007" using Mode Superposition Method. At this juncture, the structures with 4, 6, and 8 story in frame models were investigated by four different cases i.e., regular, console, console and mobile facade, irregular. The differences were compared by regularities and irregularities, first vibration period values.

**Keywords:** Beam Discontinuity, Horizontal Irregularities,  
Earthquake Analysis, Reinforced Frame System,  
Building Period

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### **BETONARME PERDE ÇERÇEVELİ YAPILARDAKİ KİRİŞ SÜREKSİZLİĞİNİN DEPREM ETKİSİ ALTINDA DEPLASMAN BAKIMINDAN İRDELENMESİ**

#### **Öz**

Bu çalışmada perde-çerçeve sistemli bina modellerindeki kiriş süreksizliğine ait modeller üzerinde meydana gelen deplasmanlar, Deprem Bölgelerinde Yapılacak Binalar Hakkında Yönetmelik (DBYBHY-2007) doğrultusunda "mod birleştirme yöntemi" ile analiz edilmiştir. Bu bağlamda perde-çerçeveli modelde 8, 10, 12 katlı yapı modelleri dört ayrı durumda (düzenli, çıkmalı, çıkma ve cephe hareketli, düzensiz) olarak ele alınmıştır. Aradaki farklar düzenli-düzensiz durumuna ve katlara göre oluşan deplasmanlar karşılaştırılmıştır.

**Anahtar Kelimeler:** Kiriş Süreksizliği, Yatay Düzensizlikler, Deprem Analizi, Perde Çerçeve Sistem, Deplasman

### **INVESTIGATION ABOUT DISPLACEMENT OF FRAME BEAM DISCONTINUITIES IN BUILDINGS WITH SHEAR WALL-FRAME IN REINFORCED CONCRETE SYSTEM UNDER EARTHQUAKE LOADS**

#### **ABSTRACT**

In this study, displacements formation on the construction models with beam discontinuities in buildings with shear wall-frame system were examined by "Code for the Buildings in Earthquake Zones in 2007" using Mode Superposition Method. In this respect, At this juncture, the structures with 8, 10, and 12-story in shear wall-frame models were investigated by four different cases i.e., regular, console, console and mobile facade, irregular. The differences were compared by regularities and irregularities and by displacements formation in terms of stories.

**Keywords:** Beam Discontinuity, Horizontal Irregularities, Earthquake Analysis, Shear Wall-Frame System, Displacement



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## THE NEURO MOTION ANALYZER EXAMINING THE DECISION-MAKING MECHANISM OF THE HUMAN BRAIN

### ABSTRACT

After the loss of motor abilities due to damage to the brain, extensive physiotherapeutic processes are required. The aims for these are for the brain to recover the damage by enabling the non-damaged portions to undertake the processes done previously by the damaged parts. While the brain gains this ability, it makes changes to the already existing connections. This phenomenon, that can also be seen while one learns to play an instrument, to play a sport or solve a math problem, is called neuroplasticity. [1] In this project, the aim is to provide a Brain-Machine Interface (BMI) that will help cover for the movement loss seen in patients with damage to the brain, mostly caused by trauma or stroke caused by high tension. The project is aimed to be a Neuroplasticity Enhancement System (NES) that is fast, inexpensive and suitable for regular home usage.

**Keywords:** Index Terms-Neuroplasticity Enhancement System (NES), Brain-Machine Interface (BMI), Neuro Motion, Human Brain



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## **KOLEMANİT KATKISININ POMZA AGREGALI HAFİF BETONLARIN POROZİTESİNE ETKİSİNİN İNCELENMESİ**

### **ÖZ**

Depremi yapı üzerindeki olumsuz etkilerini azaltmak, termal izolasyon sağlamak gibi önemli özellikleri olan hafif beton, hafif bir agrega türü olan pomza ile üretilebilmektedir. Bu çalışmada kolemanit katkısının farklı kür süreleri için pomza ile üretilen hafif betonların porozitesine etkileri incelenmiştir. 28, 56 ve 360 gün kürlenmiş hafif betonlar numunelerinde kolemanit katkısı özellikle uzun kür sürelerinde poroziteyi düşürmüştür.

**Anahtar Kelimeler:** Kolemanit, Afif Beton, Porozite, Pomza, Kür Süresi





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## **EXAMINATION OF THE ENGINEERING PROPERTIES OF A PUBLIC ADMINISTRATIVE SERVICE BUILDING**

### **ABSTRACT**

In this study, the engineering properties of a newly constructed public administrative service building were examined within the scope of bioharmology science and the Bioharmological Conformity Assessment (BCA) was determined. The building was examined on 26-27 March 2018. A total of 14 engineering features and criteria were discussed in the building review. As a result of the BCA study, it was understood that the newly completed and newly accessible building needs "Minor Improvements" in its "Rehabilitation" class. BCA of the building score is calculated as ~434. In addition, the lack and inadequacy value of the building is 32%. The weakest first three engineering properties identified in the building are "Mechanical System", "Furnishing and Configuration", "Lighting" and On the other hand, the best first three engineering features of the building are "Carrier Staff", "Seismology" and "User Identity".

**Keywords:** BCA, Bioharmology, Engineering Properties of Buildings, Bioharmological Buildings, User Identity and Usage Purpose



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## CLINICOPATHOLOGIC ANALYSIS OF GASTRECTOMY MATERIALS: EVALUATION OF CONSECUTIVE CASES

### ABSTRACT

Stomach tumors are an important health problem in terms of mortality as well as socioeconomic aspects. We aimed to evaluate the histopathologic findings, survival and life span of cases with gastric tumors operated between 2014 and 2016 in our study. In our study we evaluated 90 cases, the mean age of our cases was  $62.89 \pm 11.424$  (median 63). Of all the cases, 61 (67.8%) were male and 29 (32.2%) were female. Histopathological findings indicate that the most common tumor type is intestinal type according to World Health Organization (WHO) classification (62.2%). The other subtypes are as follows: poorly cohesive type (26.7%), mixed type (4.4%), mucinous type (3.3%), papillary type (1.1%) and lymphoepithelioma-like carcinoma (1.1%). When the pathologic tumor stages (pT) of the cases were examined, pT4 (46.7%) tumors was the most common ones. When the survival rate -which is associated with tumor stage- is evaluated, mean survival time is  $22.81 \pm 15.308$  months.

**Keywords:** Gastric Tumors, Gastrectomy, Survival Rate,  
Pathological Stage, Adenocarcinoma



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#### ANTIJEN RETRIEVAL METHOD IN REGAINING IMMUNOREACTIVITY

##### ABSTRACT

In histological studies, it is important for tissues to start detection without losing time after they have been removed from the living organism. It is important that the integrity and vitality of the tissues are not lost. However, the fixatives that are used cause cross-linking of structures in tissues, resulting in decreased reactivity of the antigen. In particular, commonly used formaldehyde, may cause a loss of immunoreactivity and complicate the antigen binding of antibodies in immunohistochemistry. Antigen masking can be regained by antigen retrieval (AR) method. During AR applications, enzymes, protein denaturants and heat are used. It has been stated that applying heat in formalized tissue sections opens cross-linking and enhances immunoreactivity of many antigens. The purpose of this study is to present information on the significance of the AR method, which has been reported to be applied by different methods in the literature, and the superiority of the modified methods. The AR process allows the antigen epitopes to be released by remodeling the protein conformation altered by fixation. Enzyme or heat is used in the AR. In AR process, microwave oven, oven, pressure cooker and autoclave are used for heat application. In microwave ovens, a frequency of about 2.45 GHz is used. The frequency is absorbed by water molecules and the tissue heats up. In this way the uncoverage of the antigens is provided. Pressure cooker is another method used for this purpose.

**Keywords:** Immunohistochemistry, Antigen Retrieval, Fixation

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## THE EFFECT OF PAIN ON THE QUALITY OF LIFE IN PREGNANCY

### ABSTRACT

In this study, to determine the effects of pain on quality of life during pregnancy, what pain of life quality experienced during pregnancy so that affects the determination during pregnancy impression, raising women's quality of life, aims to maintain a healthy pregnancy. It consisted of pregnant women between the ages of 18-41 (n=400) who stated that they had a pain according to VAS followed by the Central Efendi State Hospital for 5 months between 1 February and 30 June 2017 after the Ethics Committee Approval. 'Sociodemographic Questionnaire Form of Pregnant Women', 'Visual Analogue Scale', 'Short Form 36 - SF 36' and 'McGill-Melzack Pain Question Form' were used in the data collection phase. In the analysis of the data, 16.00 SPSS for Windows statistical analysis program, Frequency, Percent distribution, Independent samples t test for the normal distribution of numerical variables in the independent two group comparisons, Mann Whitney U test for the cases in which the numerical variables were not normally distributed. The average age of women participating in the study 27.72±5.221 (min=18, max=41). 50.75% (n=203) of the pregnant women were primary school graduates and 67.50% (n=270) were housewives. The mean week of pregnancy was 32.50±6.602 (Min=10, Max=42). According to the VAS, the gait expressing the feeling of lumbar, back, headache was found to have high pain scores. A statistically significant difference was found between the McGill pain scale total score and the quality of life subscales (energy-vitality-vitality, mental health, social functioning).

**Keywords:** Pain, Pregnancy, Quality of Life, VAS, Manisa



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**IS ROUTINE PERIODIC ACID SCHIFF (PAS) REQUIRED IN SKIN INCISIONAL  
BIOPSIES?**

**ABSTRACT**

Today, skin incisional biopsies are being taken to support the clinical diagnosis of many localized or systemic diseases or to make histopathological diagnosis. Deep superficial or deep fungal infections are also involved in these diseases. In some pathology laboratories periodic acid schiff (PAS) histochemistry is performed in all skin incisional biopsies that arrive at the pathology laboratory regardless clinical diagnosis of fungal infection. In this study, the necessity of routine PAS histochemistry was tried to be evaluated. 90 patients whose skin incisional biopsies evaluated with no fungal infection at the clinical preliminary diagnosis were included in the study. The mean age of the cases were  $44.66 \pm 10.57$ . Fungal infestation was observed in 4 (4.4%) cases. None of the cases were diagnosed with H&E and all fungal infections were diagnosed with PAS histochemistry. PAS histochemistry allows the detection of fungal hyphae that are not present at the H&E level and facilitates the diagnosis. However, for cases without fungal infections in clinical preliminary diagnoses, it may be appropriate to add PAS histochemistry when certain morphological findings supporting fungal infestation are detected or for possible fungal infestation if there is no specific findings in the biopsy.

**Keywords:** Skin Biopsy, Incision, PAS,  
Mushroom Periodic Acid Schiff

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#### WATER CONSUMPTION AND BODY MASS INDEX (BMI): A CROSS-SECTIONAL STUDY

##### ABSTRACT

70% of the human body is made up of water. Daily water consumption should be roughly 1500 milliliters (ml) in an adult. The body mass index (BMI) is a parameter of evaluating healthy body weight which is obtained by dividing the weight of a person measured in kilograms divided by the square height of the person measured in meters. In this study, we aimed to evaluate the relation between BMI and water consumption in pre-clinic students of medical faculty. 142 students were included in the study from a medical faculty's 1-3rd classes. The questionnaire was applied on a voluntary basis, questioning the students about their age, sex, height, weight and daily water consumption. The mean age of the students was 19.93±1.40. The mean BMI of the students was calculated as 22.10±3.426 and mean water consumption as 1790.70±917.323ml. The mean BMI of students who consumed 1501ml and above water was found to be 22.49±3.280, and the mean BMI of those who consumed 150 ml and below water was found to be 21.67±3.553. When the BMI and water consumption of medical faculty pre-clinic students were evaluated, it was observed that the students with higher BMI consumed more water.

**Keywords:** Water Consumption, Body Mass Index,  
Medical Faculty Student, Health, Preclinical

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#### EBELİK/HEMŞİRELİK ÖĞRENCİLERİNİN TOPLUMSAL CİNSİYET ROLLERİNE İLİŞKİN TUTUMLARININ BELİRLENMESİ

##### ÖZ

Bu çalışma ile Ebelik ve Hemşirelik öğrencilerinin toplumsal cinsiyet rollerine ilişkin tutumlarını belirlemek amaçlanmıştır. Araştırma kesitsel tiptedir. Araştırmının evrenini Sağlık Bilimleri Fakültesi Ebelik ve Hemşirelik öğrencileri oluşmuştur (N:927). Herhangi bir örneklem yöntemi kullanılmadan evrenin tamamına ulaşılması planlanmıştır. Araştırmaya katılım oranı %86.4'tür (n:801). Veri toplama formu 16 sosyodemografik soru ve 38 maddeden oluşan toplumsal cinsiyet rollerine ilişkin tutum sorusundan oluşmuştur. Çalışmaya katılanların %70.5'i hemşirelik bölümü, %41.1'i 1.sınıf öğrencisi idi. Hemşirelik öğrencilerinde ölçek puanı 105.86±20.91, ebelik öğrencilerinde ise 108.69±11.52'dir. Toplam ölçek puanı ile cinsiyet, yaş, sınıf, en uzun yaşanan yer, anne ve baba mesleği değişkenleri arasında istatistiksel açıdan fark bulunmuştur (p<0.05). Öğrencilerin toplumsal cinsiyet rollerine ilişkin eşitlikçi tutuma daha yakın oldukları belirlenmiştir.

**Anahtar Kelimeler:** Toplumsal Cinsiyet, Tutum, Ebelik, Hemşirelik, Cinsiyet Roller

#### DETERMINATION OF ATTITUDES OF MIDWIFERY/NURSING STUDENTS TOWARDS SOCIAL GENDER ROLES

##### ABSTRACT

In this study, we aimed to determine the attitudes of midwifery and nursing students of Manisa Celal Bayar University School of Health Sciences towards social gender roles. The research is a cross-sectional type study. The population of the study consisted of midwifery and nursing students of the Faculty of Health Sciences (n:927). We planned to reach the entire population without any sampling method. The participation rate was 86.4% (n:801). The data collection form consists of 16 sociodemographic questions and the attitudes towards gender roles of 38 questions. 70.5% of the participants were in the nursing department, 41.1% were in first grade. This score was 105.86±20.91 in nursing students and 108.69±11.52 in midwifery students. There was a statistically significant difference between the total scale scores and the gender, age, class, the longest living place, mother and father occupation variables (p<0.05). It has been found that students are closer to the equitable attitude on gender roles.

**Keywords:** Social Gender, Attitude, Midwifery, Nursing, Gender Roles



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### SON TRİMESTER GEBELERİN ANTENATAL DÖNEMDE YAPILAN RUTİN TESTLER HAKKINDAKİ BİLGİ DURUMLARI VE UYGULAMALARI

#### ÖZ

Bu araştırmanın amacı son trimesterdeki gebelerin antenatal dönemde yapılan rutin testler hakkındaki bilgi durumları ve uygulamalarını belirlemektir. Araştırma tanımlayıcı tiptedir. Araştırmanın evrenini Üniversite Hastanesi perinatoloji polikliniğine başvuran son trimesterdeki gebeler oluşturmıştır. Araştırmada herhangi bir örnek seçim yöntemi kullanılmamıştır. Etik kurul ve kurum izni çıktıktan sonra, 1 ay (30 gün) içerisinde araştırmaya katılmayı kabul eden gebeler araştırmanın örneğini oluşturmıştır (n:150). Gebeler prenatal testler arasında en fazla %82,7 USG'yi bilmektedirler. En az uygulanan prenatal testin ise %66,7 oranı ile ikili tarama testi olduğu görülmüştür. Antenatal dönemde uygulanması hem maternal hem de fetal sağlığı izlemek için önemli olan tarama testlerinin duyma oranları yüksek olsa da; gebeler tarafından yeterli derecede bilinmediği görülmüştür.

**Anahtar Kelimeler:** Gebe, Antenatal, Tarama Testleri,  
Fetal, Maternal





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### EFFECT OF HENNA ON OXYGEN SATURATION DETERMINED BY PULSE OXIMETRY IN OPEN HEART SURGERY WOMAN PATIENTS

#### ABSTRACT

Henna has taken part into traditional ceremonies in Turkish culture. Therefore, this result has a significant clinical implication, especially in the Middle East, Asia and Africa countries where henna is used for staining of the fingers. Because of pulse oximeter readings could be influenced by a number of factors such as skin pigmentation. The aim of this study was to determine the effect of henna, in female patients undergoing open heart surgery, on arterial blood gas measurement and oxygen saturation measured at the same time by pulse oximetry. The study sample consisted of 40 woman patients. Patient Identification form, Data Registration Form was used in the collection of data. Henna put on the thumb of the non-dominant hand. The thumb finger of the other hand (without henna) was used as control. Blood gas analysis from radial artery and pulse oximetry (with henna finger/without henna finger) were performed simultaneously. The mean of the oxygen saturations readings by the pulse oximeter with henna finger was  $97.45 \pm 1.96$  in the first postoperative day,  $96.22 \pm 2.29$  in the second postoperative day. The mean of the oxygen saturations readings by the pulse oximeter without henna finger was respectively  $97.70 \pm 1.91$ ,  $96.50 \pm 2.21$ . Mean oxygen saturation measured by blood gas analysis was  $97.98 \pm 1.79$  in the first postoperative day,  $96.68 \pm 2.49$  in the second postoperative day. The difference was not statistically significant ( $p > 0.05$ ). The results indicate that henna did not lead to a difference between the groups in terms of their mean of the oxygen saturations measured by pulse oximeter in open heart surgery patients.

**Keywords:** Henna, Pulse Oximeter, Oxygen Saturation,  
Woman, Patient



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**TİP 2 DİYABETLİ KADINLARDA MEME KANSERİ RİSKİNİN SAPTANMASI VE VERİLEN  
KENDİ KENDİNE MEME MUAYENESİ EĞİTİMİNİN DEĞERLENDİRİLMESİ**

**ÖZ**

Bu araştırmada tip 2 diyabetli kadınların meme kanseri riski saptanarak verilen kendi kendine meme muayenesi (KKMM) eğitiminin etkinliğinin değerlendirilmesi amaçlanmıştır. Araştırma örneklemini Manisa merkezinde bulunan Devlet Hastanelerin Dahiliye ve Endokrinoloji Kliniklerinde yatan hasta servislerinde tip 2 diyabet tanısı almış kadınlardan (n=130) oluşmuştur. Veri toplanmasında 'Kadınların Sosyodemografik Özellikleri ve Meme Kanseri Riski Anket Formu', 'KKMM'ye Yönelik Bilgi ve Uygulama Formu' ve 'Sağlık İnanç Modeli Ölçeği' kullanılmıştır. Verilerin analizinde SPSS 15.0 istatistik programı kullanılmıştır. Araştırmaya katılan kadınların yaş ortalaması 50±10; %75.4'ü evli, %52.4'ü ilkökul mezunudur. Tip 2 diyabetli kadınların %88.5'i meme kanseri bakımından düşük risklidir. Katılımcılara KKMM eğitimi verilmeden önce meme kanserine yönelik sağlık inançları değerlendirilmiş, eğitim sonrasında meme sağlığı ve KKMM'ye ilişkin engel algıları azalarak sağlık inançları gelişmiş ve artmıştır. Verilen eğitim sonrası kadınların sağlık inançlarından duyarlılık, ciddiyet, yarar, güven ve sağlık motivasyonu algıları artarken, engel algıları azalmıştır. Böylece verilen eğitim sayesinde kadınların KKMM'yi uygulama sıklığı belirgin bir şekilde artış göstermiştir.

**Anahtar Kelimeler:** Tip 2 Diyabet, Meme Kanseri, Kendi Kendine  
Meme Muayenesi, Sağlık İnanç Modeli, Risk

**DETERMINATION OF BREAST CANCER RISK IN TYPE 2 DIABETIC WOMEN AND  
ASSESSING OF TRAINING FOR SELF- BREAST EXAMINATION**

**ABSTRACT**

In this study it's aimed to assess of efficiency of training for self-examination (SBE) by determining of breast cancer risk on women with type 2 diabetes. The study sample consisted from women (n=130) who had type 2 diabetes diagnosed in inpatient services at the Departments of Internal Medicine and Endocrinology of State Hospitals in Manisa. "Form for Socio-demographical and Breast Cancer Risk", "Information and Practice Form for SBE" and "Health Belief Model Scale" are used for data collecting. In the analysis of the data, SPSS 15.0 statistical program was used. The average age of the women participating in the survey is 50±10; 75.4% are married and 52.4% are elementary school graduates. 88.5% of women with type 2 diabetes have a lower risk of breast cancer. Health belief of participants is assessed before training for SBE; obstacle perception to breast health and to SBE is decreased and their health belief is developed and increased after training. After SBE training it's determined that perception for sensibility on health belief, severity, benefit, confident and health motivation are increased; perception of obstacle is decreased. Frequency of application of SBE of Women is significantly increased after given training.

**Keywords:** Type 2 Diabetes, Breast Cancer, Breast  
Self-Examination, Health Belief Model, Risk

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**CAN THIOPENTAL BE A PREVENTIVE AGENT FOR LIVER DURING COLD ISCHEMIA  
IN ORGAN TRANSPLANTATION?**

**ABSTRACT**

Liver transplantation is a life-saving treatment for patients with end-stage liver failure. Time in organ transplantations is one of the most important factors determining success after surgery. This is the period of cold ischemia, from the supply of the organ to the transplant to the recipient. During cold ischemia, the organs are kept in the standard preservation solutions at +1-+4°C. During this time, hypoxia and hypothermia are seen in tissues. It is important to slow the metabolism of the organ in order to avoid harmful effects of hypoxia. At high anesthetic doses of thiopental, the brain reduces oxygen consumption and significantly reduces brain metabolism. There is not enough information in the literature about whether a response similar to this metabolic effect performed in the brain of thiopental also develops in peripheral organs. The purpose of this study is; to reduce the energy requirement by lowering the basal metabolism rate of the liver to be transplanted with the doses to be administered before the organ transplantation by taking advantage of the thiopental metabolism rate reducing effect and to increase the viability of the livers by decreasing the tissue damage which is most likely to occur in the cold ischemia period. The rats in Group 1 were anesthetized with Ketamine-Xylazine and a midline incision was made on abdominal region. After the liver was seen, a cannula was inserted to the portal vein and ligated distally. Organ preservation solution on +4°C was given to the portal vein and liver was perfused. Excised livers were put into the falcon tubes which were filled with organ preservation solution at +4°C. Falcon tubes were kept at +4°C and on 6th and 12th hours liver biopsies and solution samples were taken. Same procedures of group 1 were fulfilled to the rats in group 2 after thiopental sodium anesthesia. Tissue and solution samples were taken for examinations and experiment was ended. TUNEL scores of group 1 were high than group 2 but was not statistically significant. AST mean values were higher in the control group but not statistically significant. There was also no statistical difference in terms of ALT and ALP values. Histopathological evaluation and scoring will be performed in our project. Although thiopental sodium had an effect of reducing metabolism in the brain, no metabolismal effects were detected on liver like brain. Despite differences in terms of biochemical and TUNEL assessments, this difference was not statistically significant. In our study, cold ischemia was applied to the tissues for 12 hours. Perhaps the differences found during long ischemic periods may be significant. Further studies are needed.

**Keywords:** Organ Transplantation, Liver,  
Cold Ischemia, Thiopental, Health

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## THE VALUE OF ULTRASONOGRAPHIC IMAGING (US) IN BREAST DISEASES

### ABSTRACT

Breast diseases are more common in women today, but they also affect men. Although the precise diagnosis of breast diseases is histopathological, ultrasonographic imaging (US) is a guide for diagnosis and treatment planning. We aimed to evaluate the efficacy of US in breast diseases. 133 cases were included in the study whose biopsies are taken in a university hospital. The cases without pre-biopsy US's were excluded from study. In cases; the sensitivity, specificity, diagnostic accuracy, positive and negative predictive values of US were calculated based on histopathological examination which is the gold standard. The mean age of the cases is  $44.62 \pm 17.24$ . 97.7% of the cases were female and 2.3% were male. Histopathological findings of the cases were reported as 6% normal breast tissue, 61.7% benign lesions, 6.8% carcinoma insitu and 25.6% malignant. The sensitivity of US was 91.1%, the diagnostic accuracy was 92.5% and the positive predictive value was 82.9%. US is an important method in the management of breast lesions in patients with high sensitivity and diagnostic accuracy. However, the specificity and negative predictive value of US cannot be assessed because there are no true negative cases in our study. We suggest that these data should be evaluated in larger series including healthy cases.

**Keywords:** Breast, USG, Sensitivity, Diagnostic Accuracy, Ultrasonography



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## CHOLESTEROLYSIS VS CHOLESTEROL POLYPS: LIPID PROFILE

### ABSTRACT

Cholesterol polyps (CP) are the most common polypoid lesions in clinical practice in gallbladder. Cholesterolysis is another benign biliary disease characterized by cholesterol and macrophage accumulation in the gallbladder mucosa and frequently seen in routine practice. In our study, we aimed to compare the lipid profiles of patients with these two lesions with cholesterol in the structure. Sixty-one patients who underwent cholecystectomy were included in the study. The cases with unevaluated preoperative lipid levels were excluded from the study. 53 (86.9%) of the cases were female and 8 (13.1%) were male. Histopathological findings of chronic cholecystitis are present in all cases. Chronic cholecystitis was also noted in 18 patients (29.5%) with CP and 43 (70.5%) with cholesterolysis. There was no statistical significance between the mean lipid values of cases with cholesterolysis and CP. Cholesterolysis and CP are diseases characterized by frequent lipid accumulation in routine practice. In our study which has limited cases, there was a difference between the mean lipid values, but this difference was not statistically significant. We think that a statistically significant increase in the lipid values will be detected in future studies involving a larger series of cases.

**Keywords:** Water Consumption, Body Mass Index,  
Medical Faculty Student, Health, Preclinical



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**ANALYSIS OF RESEARCHES RELATED REFLEXOLOGY WHICH MADE IN TURKEY:  
SYSTEMATIC REVIEW**

**ABSTRACT**

It is aimed to examine of researches related to reflexology in Turkey and define of Turkey's profile. In this descriptive research that was planned retrospectively; National Thesis Center, Web of Science, Google Academic, Science Direct, Ulakbim Medical Databases screened with "Reflexology", "complementary medicine", "Turkey" key words and it was reached a total of 32 randomized controlled studies. It has been identified that the first study was made in 2008 as a thesis, (25.0%) at the most in 2015. In studies investigating the effect of reflexology, the topics in the top five ranks; pain (28.1%), fatigue (21.9%), anxiety (18.8%), quality of life (15.6%) and sleep quality (12.5%). It was found that the result of reflexology application was effective in the results of others, except one of the studies of examined studies. It was seen that the majority of research related to nursing studies in Turkey are nursing studies and the results were positive.

**Keywords:** Refleksology, Complementary Medicine, Turkey, ULAKBİM, Health



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## THE DETERMINATION OF MIDWIFERY STUDENTS ATTITUDES TOWARD FAMILY PLANNING

### ABSTRACT

This study was conducted to evaluate the point of view of the midwifery students on family planning and attitudes toward family planning. The research which is planned as descriptive one was carried out with intern students who study at Faculty of Sciences Midwifery Department of a public university. Sample of the research contains 279 volunteer students. Questionnaire form which comprise of two parts was used in order to collect data. Students' characteristics and opinions about ethics are asked in the first part. "Family Planning Attitude Scale". The score averages of students were determined as  $133.35 \pm 16.93$  in the Family Planning Attitude Scale. Family Planning Attitude Scale scores between students in the class with a statistically significant difference was obtained. It was determined that the attitude scores of the midwifery students who will be counseling for this issue in the future increase according to their class levels. Family planning is one of the most important factors in maintaining woman's reproductive health.

**Keywords:** Midwifery Student, Family Planning, Attitudes



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### THE EFFECT OF USING COMPUTER-BASED SIMULATION IN NORMAL VAGINAL BIRTH TRAINING ON STUDENTS' SKILLS AND SATISFACTION

#### ABSTRACT

Midwifery skills training is crucial for students to conduct normal vaginal deliveries in her own responsibility after graduation. This study was conducted to determine the effects of using computer-based simulation on the level of skill and satisfaction of student in the management of normal vaginal birth. The students were divided into two groups after the theoretical training on management of normal labor was completed for the 3rd-grade students of the Midwifery Department (N=85). Practical training of normal birth skills was performed with the first group of pelvic models and the second group of high fidelity simulation. Skill training was conducted with small groups of six or seven students. There was no significant difference between the groups in terms of age, graduated high school, the profession' voluntary selection and love ( $p>0.05$ ). As a result of the study, no significant difference was found between students' normal birth skills and simulation design scale scores between the two groups. Despite the increase in satisfaction and confidence scores of the students who were given skills training with the simulation model, there was no statistically significant difference between the other group ( $p>0.05$ ).

**Keywords:** Normal Vaginal Delivery, Simulation, Skill Training, Midwifery, Computer-Based Simulation





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**THE EFFECT OF PERCEIVED SOCIAL SUPPORTS ON MENOPAUSAL APPROACHES AND COMPLAINS TO WOMEN IN CLIMACTERIC PERIOD**

**ABSTRACT**

The aim of this study is to analyse the effects of social support on the menopausal complaints and the approaches of women towards menopause in the climacteric women. The study population consists of women aged 45-65 years who applied to a university hospital for any reason (n=384). 'Questionnaire', 'Menopause Symptom Assessment Scale', 'Women's Perspective on Menopause Questionnaire' and 'Multidimensional Perceived Social Support Scale' were used in the data collection. It was found that, women who had social support, accept menopause as a natural process, believe that it doesn't affect feminine aspects, feel less anxious and nervous, not to lose interest to life and are happy to be in menopausal period ( $p<0.05$ ). It was identified that increasing of perceived social support of women help to reduce menopausal symptoms both in physically and psychologically ( $p<0.05$ ). As a result; It could be say that social support, especially family support, reduces complaint of menopause in the women and have positive effect on their menopausal approaches.

**Keywords:** Menopause, Perceived Social Support, Menopausal Complaints, Menopausal Approach, Women



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**BOIDIVERSITY OF MEDICINAL PLANTS OF WILD FLORA IN AJARA-SOUTH COLCHIS  
AND THEIR USAGE IN FOLK MEDICINE**

**ABSTRACT**

The paper deals with the biodiversity of species of medicinal plants of wild flora in Ajara-south Colchis, their systemic structure and peculiarities of use in folk medicine, also recipes widespread and successfully used by local people. It is estimated, that: wild medicinal plants of Ajara- south Colchis are represented by 194 species, belonging to 154 genera and 73 families. The biggest amount of species is gathered in following families: Asteraceae, Rosaceae, Lamiaceae, Solanaceae, Scrophulariaceae, Caryophyllaceae, Hypericaceae, Polypodiaceae, Vacciniaceae, Crassulaceae. Other families are represented with small number of them. Species the most commonly used in the recipes of traditional medicine are: *Chelidonium majus*, *Urtica dioica*, *Mentha longifolia*, *Bidens tripartita*, *Leonorus qunquelobatus*, *Tussilago farfara*, *Matricaria chamomilla*, *Glicyrriza glabra*, *Vaccinium vitis-idae*, *Hypericum perforatum*, *Arctium lappa*, *Vaccinium myrtilis*, *Carum carvi*, *Helichrysum arenarium*, *Poligonum aviculare*, *persicaria hidropiper*, *Equisetum arvense*, *Salvia glutinosa*; *Vaccinium arctostaphylos*, *Verbascum thapsus*, *Rosa canina*, *Achillea millefolium*, *Inula helenium*, *Humulus lupulus*, *Rubus caesius*, *Crataegus mikrophylla*, *Crataegus pentagyna*, *Ammi visnaga*, *Sambucus ebulus*.

**Keywords:** Folk Medicine, Recipes, Medicinal Plants,  
Biodiversity, Ajara



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### **HEMŞİRELİK FAKÜLTESİ SINIF ÖĞRENCİLERİNİN MİZAH TARZLARI İLE TÜKENMİŞLİK DÜZEYLERİNİN İNCELENMESİ**

#### **ÖZ**

Mizah duygusu ile stresle başa çıkma tarzları arasındaki ilişkilerin incelenmesi sürekli başkalarının sorunları ve beklentileriyle uğraşan hemşirelik öğrencileri açısından önemlidir. Bu çalışmanın amacı 1., 2., 3., 4. sınıf hemşirelik öğrencilerinin mizah tarzları ile tükenmişlik arasındaki ilişkinin incelenmesidir. Nisan-Mayıs 2018 tarihinde yapılan çalışmada Sosyo-Demografik Özellikler Soru Formu, Maslach Tükenmişlik Ölçeği ve Mizah Tarzları Ölçeği kullanılmıştır. Etik Kurul ve kurum izni alındıktan sonra 1539 öğrenciden 931'i çalışmaya katılmışlardır. Katılımcıların 711'i kadın, 220'si erkektir. Öğrencilerin 220'si 1. sınıf, 187'si 2. sınıf, 407'si 3. sınıf ve 117'si 4. sınıftır. Mizahın stresle baş etmede etkili olduğunu bildirenler %79.1 (736)'dır. Sınıflara göre bakıldığında Tükenmişlik Ölçeği'nin alt boyutlarından Tükenme ve duyarsızlaşma en fazla 2. sınıflarda görülmüştür ( $X_{ort}=16.59\pm5.70$ ,  $p=0.004$ ). Yetkinlik alt boyutunda düşük puan tükenmişliği göstermektedir ve en düşük 1. sınıflarda görülmektedir ( $X_{ort}=12.48\pm2.73$ ,  $p=0.000$ ). Cinsiyete göre bakıldığında Tükenme'nin alt boyutlarından Duyarsızlaşma puan ortalaması erkeklerde daha fazla görülmektedir ( $X_{ort}=11.12\pm4.74$ ,  $p=0.001$ ). Sınıflara göre mizahı kullanım sıklığına bakıldığında istatistiksel olarak anlamlı fark görülmemiştir.

**Anahtar Kelimeler:** Hemşirelik, Öğrenci, Mizah, Tükenmişlik, Stresle Başetme

### **EXAMINATION OF NURSING FACULTY STUDENTS' HUMOR STYLES AND BURNOUT LEVELS ABSTRACT**

Investigating the relationship between the sense of humor and the ways to cope with stress is important for the nursing students who are constantly dealing with the problems and expectations of others. The aim of this study is to examine the relationship between burnout styles and the humor styles of 1st, 2nd, 3rd, 4th grade nursing students. Socio-Demographic Questionnaire, Maslach Burnout Scale and Humor Scale were used in the study conducted between April-May 2018. After the Ethics Committee and the institution were granted permission, 1539 students participated in the study. 711 of the participants were female, 220 were male. 220 of the students are 1st class, 187 are 2nd class, 407 are 3rd class and 117 are 4th class. 79.1% (n=736) reported that humor was effective in coping with stress. Exhaustion and depersonalization were observed in the second grade ( $X_{ort}=16.59\pm5.70$ ,  $p=0.004$ ), from the subscales of the Burnout Questionnaire by class. In the subscale of competence, low scores indicate burnout and are seen in the lowest grade 1 ( $X_{ort}=12.48\pm2.73$ ,  $p=0.000$ ). According to sex, the average depression score from the subscales of Burnout is higher in males ( $X_{ort}=11.12\pm4.74$ ,  $p=0.001$ ). There was no statistically significant difference in the frequency of humorous usage according to the classes.

**Keywords:** Nursing, student, burnout, humor usage, coping



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**GEBE MASAJININ GEBENİN İYİLİK HALİNE ETKİSİ VE KADINLARIN  
MEMNUNİYET DÜZEYİ: RANDOMİZE KONTROLLÜ BİR ÇALIŞMA**

**Öz**

Çalışma, gebe masajının gebenin genel iyilik haline etkisini ve kadınların gebelik döneminde yapılan masaj terapiden memnuniyetlerini saptamak amacı ile gerçekleştirilmiştir. Bir üniversite hastanesinde gerçekleştirilen çalışmaya 30-34. gebelik haftalarında, 20-35 yaşlarında, primipar gebeler, CONSORT kriterlerine göre katılmıştır. Gebe masajı grubundaki her gebeye 5 hafta süresince haftada bir kez ebe terapist tarafından 60 dk masaj terapi uygulanmıştır. Kontrol grubu ile 30. ve 34. gebelik haftalarında görüşülmüştür. Gebenin iyilik halini değerlendirmek için "Görsel Kıyaslama Ölçeği" ve gebe masajından memnuniyet düzeylerini belirlemek için "Görsel Analog Hasta Tatmini Skalası" kullanılmıştır. Çalışmanın gücünün %99 olduğu saptanmıştır. Veriler SPSS 16 paket programı ile değerlendirilmiştir. Çalışmanın sonunda ölçek puanları açısından her iki grup arasında anlamlı fark olduğu ( $p<0.05$ ) ve kontrol grubunun ilk görüşme ve son görüşme ölçek puanları arasında fark olmadığı saptanmıştır ( $p>0.05$ ). Çalışmada, masaj grubundaki gebelerin genel iyilik halinin anlamlı bir şekilde arttığı ( $p<0.05$ ), gebelerin gebe masajından memnuniyetlerinin %99 olduğu saptanmıştır. Bu uygulamanın bölgesel ya da tüm vücut masajı şeklinde doğuma hazırlık sınıfları ve gebe polikliniklerinde hizmet veren ebe ve hemşireler tarafından öğrenilerek rutin gebelik hizmetleri içinde verilmesi önerilmektedir.

**Anahtar Kelimeler:** Gebelik, Masaj Terapi, Prenatal, İyilik Hali, Memnuniyet

**THE EFFECT of PREGNANT MASSAGE on PREGNANTS GENERAL WELL-BEING AND  
SATISFACTION LEVELS OF WOMEN: A RANDOMIZED CONTROLLED TRIAL  
ABSTRACT**

The study was carried out with the aim of determining the effect of pregnancy massage to the general well-being of the pregnant women and the satisfaction of the therapies of the women during pregnancy period. Study in a university hospital and 30th-34th during the gestational weeks, 20-35 years of age, primiparous pregnancies were included according to the CONSORT criteria. The control group was interviewed at 30th and 34th gestational weeks. "Visual Analog Scale" was used to evaluate the gestational status and "Visual Analogue Patient Satisfaction Scale" was used to determine the level of satisfaction from pregnancy massage. It has been determined that the study's power is 99%. The data were evaluated using the SPSS 16 packet program. At the end of the study, there was a significant difference between the two groups in the terms of scale scores ( $p<0.05$ ), and there was no difference between the first and last sessions scale scores of the control group ( $p>0.05$ ). In the study, it was found that the general well-being of the patients in the massage group increased significantly ( $p<0.05$ ), and the satisfaction from pregnancy massage of the pregnant patients was 99%. It is suggested that this practice should be taught by prenatal classes in the form of regional or whole body massage and by midwives and nurses serving in pregnancy outpatient clinics and should be given in routine pregnancy services.

**Keywords:** Pregnancy, Massage Therapy, Prenatal, Well-being, Satisfaction

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#### DETERMINATION OF COMMUNICATION BARRIERS BETWEEN NURSES AND OTHER HEALTH PROFESSIONS

##### ABSTRACT

An effective rehabilitation service requires team members to work in good communication and coordination. The purpose of the research is to determine communication barriers between nurses and other health professions. The descriptive study was carried out on April 2018. The research was completed with a total of 82 nurses who worked at Manisa Celal Bayar University Hafsa Sultan Hospital. Data was collected with the form consisting of personal information and communication of nurses. The data were collected by face-to-face interview method. Descriptive statistics were used in the analysis of the data. It was detected that the mean age of the nurses was 31.62±6.99, 84.1% were female, 68.3% were married, 46.3% were undergraduate, 73.2% work in service nurse, 90.2% loved profession, 36.6% had trouble with the other health team. Occupational groups in which nurses had the most problems in communication were identified as physicians (40.2%) and nurses (15.9%). The nurses of 28.0% stated that communication problems were caused by inadequate communication skills. Problems caused by living communication problems with other health professionals were corruption of compatible work (59.8%), loss of motivation (53.7%), damage to the patient (43.9%). For the solution of communication problems, the nurses of 59.8% stated that institutional management and them of 53.7% individual solution support required. Face-to-face interview (93.9%) was found the most effective communication method to be used in communication with the other health team. It has been found that there are some communication barriers between nurses and other health care team members. For this reason, it is important to improve teamwork and communication skills and to give these trainings to the whole team.

**Keywords:** Teamwork, Communication, Communication Barrier, Nurse



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## SLEEP QUALITY IN DERMATOLOGIC PATIENTS WITH A COMPLAINT OF PRURITUS

### ABSTRACT

In this study, it was aimed to assess the sleep quality of dermatology patients with complaints of pruritus. Sleep of patients with pruritus deteriorate due to the symptoms of pruritus. This case-control study was conducted between August 2017 and December 2017. The study population consisted of 100 patients with pruritus and 100 patients without pruritus who presented to the dermatology outpatient clinic of Private Salihli Hospital, a private hospital in Manisa, a province in Turkey. The study data were collected the "Sociodemographic Characteristics Questionnaire", "Pittsburgh Sleep Quality Index (PSQI)" and "Insomnia Severity Index (ISI)". The SPSS 15 was used for the analysis of the data. The mean age of the participants was 37.16±14.33. While of the participants in the experimental group, 69% were female and 49% were married, of the participants in the control group, 81% were female and 54% were married. Of the participants, 75.0% in the experimental group and 57% in the control group had poor sleep quality. It was determined that sleep quality was significantly lower in the experimental group than that in the control group.

**Keywords:** Sleep, Sleep Quality, Pruritus, Nursing,  
Pittsburgh Sleep Quality Index



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## CHANGING OF BIRTH SERVICES FROM 1983 TO 2013, TURKEY

### ABSTRACT

In Turkey, as with many high and middle-income countries, there has been some significant changes in maternity services over last 30 years. In the study, changing of birth services were examined with data of Turkey Demographic and Health Surveys (TDHS) in 1983, 1988, 1998, 2003, 2008 and 2013. The changes in birth services were addressed by the birthplace, the health institution (public/private), the health personnel who assisted birth, and the method of delivery. In 1983, 43% of births occurred in the health institution, which rate to 97% in 2013. Birth rates in private hospitals are 13% in 2003 and 37% in 2013. In the last 30 years, the birth rate with the assistance of health personnel has increased from 62% (1983) to 97% (2013). Turkey's also seen as a significant change method of birth. The cesarean section rate, which was 14% in 1998, increased by three times more to 48%.

**Keywords:** Birth, Birthplace, Cesarean, Health,  
Turkey Demographic and Health Surveys



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## CURRENT SITUATION AND PLACE OF HEALTH POSTS IN TURKEY'S HEALTH SYSTEM

### ABSTRACT

In Turkey, since the law on socialization on health services was enacted in 19961, the government had been committed to a programme of nationalization of health services, which aimed to bring primary care up to even the remotest villages of the country. This narrative review was conducted with the aim of examining the current status and place of health posts in the health system in our country. According to this organizational model, health posts staffed by a midwife serve a population of 2500-3000 in the villages. A midwife was responsible especially for mother and child and reproductive health services and control of communicable diseases. Primary health care organization after the implementation of the Health Transformation Program in Turkey has changed with Family Medicine Law (2004). Health Centers have been replaced by Family Health Centers. But today, health post maintain their presence as units attached to Community Health Centers.

**Keywords:** Health Post, Midwife, Health System,  
Family Medicine Law, Community Health Centers





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## **SPATIAL DESIGN OF THE BIRTH ENVIRONMENT: A NARRATIVE REVIEW**

### **ABSTRACT**

Most women feel anxious and fear in birth environment in the hospital where they are foreigners. These feelings interfere with the neuro-hormonal process of labor and birth, and increase the likelihood of interference. In recent years over-medicalization of birth has been criticized and emphasizes the importance of birth environment that will protect birth physiology. This narrative review was conducted with the aim of examining the current evidence on birth environment design and the Birth Unit Design Spatial Evaluation Tool (BUDSET). The important elements in the design of the birth environment are: the privacy, the possibility of access to water, the shower and single toilet, the lighting, the windows, the noise, the sound, the decor, the furniture and the equipment, enough space to move, the landscape, the smell, personal property, allowing the support of pregnancy, culturally appropriate behavior. Taking these factors into consideration will contribute to the best birth results and to the positive life experiences of women.

**Keywords:** Birth Environment, Birth Environment Design, BUDSET, Health, birth Physiology



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**INVESTIGATION OF THE EFFECTS OF THE TOXOPLASMA GONDII INFECTIONS ON ANXIETY, DEPRESSION AND LEARNING BEHAVIORS IN OFFSPRINGS OF INFECTED PARENTS**

**ABSTRACT**

*Toxoplasma gondii* is a parasite that displays intracellular localization. It is known that infections can be located in many organs. The aim of the study, investigation of the effects of the *T. gondii* infections on anxiety, depression and learning behaviors in offsprings of infected parents. Using total of 32 female- 8 male rats, the control group (G4: uninfected female and male), group1 (G1: infected female, uninfected male); group 2 (G2: uninfected female, infected male); group3 (G3: infected female and male) were created and mated, and F1 generation groups from each of these groups were obtained and Behavioral tests were applied. The results of the behavioral experiments demonstrated that the rats in G1-F1 generations significantly more anxious and more depressive than F1 generations of control groups ( $p<0.05$ ). This project has been provided that clarification of the behavioral effects that may be caused by *T. gondii* infection, which are thought to be transferred from mother to offsprings.

**Keywords:** T. Gondii Infection, Maternal Transfer, Behavior, Anxiety-Depression, Learning



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**CEREBROSPINAL FLUID (CSF) IL-17A, IL-17F, IL-34 AND CXCL-13 LEVELS IN  
AMYOTROPHIC LATERAL SCLEROSIS (ALS/MND) PATIENTS**

**ABSTRACT**

Recently, the relationship between neurodegenerative diseases and inflammation has been increasing. However, the role of inflammation in ALS/MND has not been fully understood. We aim of this study cases to evaluate IL-17A, IL-17F, IL-34 cytokines and CXCL-13 chemokine levels in CSF sample in pseudotumor cerebri (PTS) cases and ALS/MND. Patients with ALS/MND and PTS who were followed up in the neurology clinic and had previously received CSF samples. IL-17A, IL-17F, IL-34 cytokines and CXCL-13 chemokine levels (pg/mL) were determined by ELISA. In the patient group, IL-17A, IL-17F, IL-34 levels were found to be significantly higher than the control group. However, no significant difference was found between the CXCL-13 level patient group and the control group. In conclusion IL-17A and IL-17F and IL-34 may be important role in immune pathogenesis and immune modulation in ALS/MND. This cytokine may be powerful biomarker for ALS/MDN in the future.

**Keywords:** ALS/MND, Cytokines, IL-17, IL-34, CXCL-13

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## **YABANCI DİL ÖĞRETİMİ: KOSOVA CUMHURİYETİ ÖRNEĞİ**

### **ABSTRACT**

Yabancı dil öğretimindeki uygulamaların analiz edilerek; benzerlik ve varsa farklılıkların ortaya konulmasını amaç edinen bir çalışmadır. Nitel araştırma yöntemi kullanılmıştır. Bulgular; doküman analizi ve yüz yüze görüşme yoluyla elde edilmiştir. Örneklemi Kosova Cumhuriyetinde, üniversite öncesi öğretim kademelerinde uygulanan müfredat programlarının; "diller ve iletişim" alanıdır. Araştırma 2018 yılının ilk yarısında yapılmıştır. Bulgulara göre yabancı dil öğretimini temel çıktıları; bilgi, beceri, tutum ve değerler şeklinde planlanmıştır. Kazanımlarsa; bilginin alımı ve verilmesi, fonksiyonel yazma ve farklı durumlarda yazılı ve sözlü reaksiyon gösterme olasılığında; iletişimin ve temel dilsel becerilerin gelişimidir. İlköğretim ve orta öğretim programında: Ana dili (resmi dil veya topluluk dili) ve İngilizce ile diğer topluluklar için Arnavutça dilidir. Lisede ise Arnavutça ve İngilizce zorunlu, Almanca ve Fransızca seçmeli dil olarak yer almaktadır. Arnavutça dışında sadece İngilizce müfredatın ortak ve zorunlu dersidir ve tüm seviyelerde öğretim programıyla bütünleştirilmelidir. Sadece Almanca ve Fransızca lise seviyesinde ve seçmeli derstir. Başta diğer topluluk dilleri ve diğer yabancı dillere yer verilmemesi eğitimin birçok boyutu ile tartışmaya açılmalıdır.

**Keywords:** Kosova Cumhuriyeti, Öğretim Programı, Yabancı Dil Öğretimi, Arnavutça, Türkçe



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## TEACHERS' ATTITUDEES TOWARDS NEW CURRICULUM

### ABSTRACT

With this research we aimed at obtaining and evaluating the attitude of teachers regarding the new curriculum, implementation challenges, and pre-implementation issues such as training for their preparation for implementation. The research was conducted through quantitative and qualitative approaches. Quantitative data was collected by the questionnaire which in the end had an open question in which the majority (about 83%) expressed their opinion on the curriculum, training and other challenges during the curriculum implementation process as part of the reform. During the realization of research and forwarded debates and opinions of teachers in the face book social network, especially teaching in Kosovo, which manages GIZ mission in Kosovo? The attitude of a large number of teachers from all parts of Kosovo, both in our fcb and in our research, turns out to be two extremes: very positive, according to Likert scale. I totally agree and disagree, (N=178), (M=2.11, DS=.88) to Curriculum is a failed experiment (M=2.89, DS=1.19). Approach based on achieving competencies is new, so the reluctance of teachers to this change is evident. This proves our research, where the average level of compliance in most positions and I agree revolves around the dilemma. The research methodology is mixed. The sample consisted of 178 teachers with different demographics. The sample will be intentional. The research shows that schools and teachers who have had enough and accurate information, but also proper training, express more positive attitude towards curriculum, training and overall reform.

**Keywords:** Curriculum, Teachers Attitude, Change, Educational Reform, Training

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## COMPARISON OF BEGINNING AND EXPERIENCED TEACHERS

### ABSTRACT

The study "Comparison of Beginning and Experienced Teachers" aims to bring a comparison of the experiences of Beginning teachers and those with experience in the teaching in Kosovo. It focuses on identifying and comparing differences in four aspects, which are closely related to the learning process: learning planning, classroom management, time management, and cooperation with parents. The population of the study are Teachers from Compulsory Education in Kosovo (Grades 1-9). The data was obtained using a 5-point Likert scale Questionnaire (1=Strongly Disagree to 5=Strongly Agree) with Cronbach's Alpha=,81 and KMO and Bartlett's Test=79, with a sample of 336 teachers from 13 Municipalities of the seven regions of Kosovo (Beginning Teachers= 51.8%; Experienced Teachers= 48.2%). The results of the study have shown that there is a significant difference between Beginning Teachers and Experienced Teachers in Time Management ( $F= 5.3$  and  $p=0.02$ ), whereas there are no significant differences between these two categories regards learning planning, classroom management, and cooperation with parents. This study deals to a number of important issues and aims to support responsible institutions to develop programs for the professional preparation and development of Beginning Teachers.

**Keywords:** Career, Cooperation, Entry into the Profession, Learning Planning, Licensing, Management

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**ANALYSIS OF EDUCATIOAL PROGRAMS FOR CHILDREN IN KOSOV TELEVISIONS (RTK, KTV, RTV21, KLAN)**

**ABSTRACT**

The study tackles function of land frequency television RTK, KTV, RTV21 and satellite television KLAN in school education (students ages 5-15) in Kosovo. The aim of this study is to identify the extent to which televisions complement the education of primary and middle level students through programs with educational content and whether they are in harmony with the Law on Media and State Curriculum. The focus of the study is identification of the number of educational shows for children, content analysis, weekly broadcasting, diversity, comprehensiveness, genre, prevailing topics, target age of children and legal aspects. In order to analyze the content of educational programs available for children, they were monitored for 36 days in 24 hours broadcast which covered the period 1 April to 6 May. The sample of the study was educational programs for children, broadcasted in three land frequency televisions RTK (public), KTV, RTV21, and one satellite television (KLAN). The sample selection criteria was that land frequency television covers 80% of the territory of the Republic of Kosovo via land broadcast, and viewership is possible for all layers of the population. Satellite television in Kosovo is yet to become a reality for children, majority of whom have only access to land frequency television. Apart from this, a considerable number of these children have limited access to cultural events which means television shows in these channels have great importance to them. Klan Television was also selected which has large viewership in Kosovo. Two research inquiries precede this study: 1) To what extent educational programs from (RTK, KTV, RTV21, KLAN) fulfil school education? 2.) Are these educational programs in (RTK, KTV, RTV21, KLAN) in compliance to the Law on Media and State Curriculum? Results show that all televisions, including public ones pay little attention to educational programs for children especially for preschool children. There is little difference between public and private television as far as program diversity is concerned and broadcasting duration. Programs are usually in a form of quizzes, entertainment and presentation various school activities, which are in conformity to state curriculum but the time dedicated to weekly broadcasting is very little, which complements school education rather insufficiently. As far as law is concerned, results show these televisions do not honour some program principles of the Law on state television and the Law on media committee. The Law on state television which itself has some gaps, sets general principles that broadcasted programs must follow, but does not impose specific obligations for educational programs for children of different ages and it does not stipulate the quantity in weekly broadcasting percentage regarding what should and what should not be broadcasted; therefore, in order to meet the results, Law on RTK and Media Committee must determine the quantity of weekly percentage for these programs and enforce applications of high professional standards for program quality, without exemption or discrimination to social diversity and persons with special needs. Land frequency televisions, public or private, must invest more in producing educational programs for children since by dedicating to children and schools; media can contribute a lot in building a positive and effective educational system in Kosovo.

**Keywords:** Content Analysis, School Education, Law on Media, Educational Programs, Televisions

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## **ÇASJA E INTEGRIMIT TË KOMUNITETEVE NË KURRIKULEN E RE TË KOSOVËS**

### **ABSTRACT**

Komuniteti Turk në Kosovë gjeneron një numër të konsiderueshëm të popullatës. Në arsimin parauniversitar janë të përfshirë gjithësejt 2,471 nxënës të përkatësisë etnike Turke, si dhe 189 mësimdhënës të kësaj përkatësie. Planprogramet, standardet dhe tekste shkollore, dokumentet standard për vlersim, metodologjia e mësimdhënies dhe nxënies janë të punuara në mënyrën e zbatimit të Kurrikulës së Kosovës. Sfidat në përshtatjen e Kurrikulës në inkuadrim dhe përgaditje të nxënësve të komuniteteve për arsimim tërëjetësor në dy gjuhësi, lehtësimin që sjell Kurrikula e re për integrimin shoqëror të tyre duke i përgatitur atë që të ballafaqohet me sfida të jetës të shkeullit XXI, gjenerimit të dijeve të reja konkurruese në mënyrë aktive për tregun global të punës në një shoqëri demokratike, pasi që synimet e politikave dhe strategjive të ministrisë së arsimit të Kosovës në zhvillimin e arsimit parauniversitar është ngritja e cilësisë me qëllim të arritjes së gjithëpërfshirjes.

**Keywords:** Kurrikula, Komuniteti, Turk, Gjithëpërfshirja, Kompetencat





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## INVESTIGATION OF BALLISTIC PERFORMANCES OF COMPOSITE SHEETS WITH HYBRID LAYER

### ABSTRACT

The aim of this study was to produce low weight sheets with high impact strength using steel wire and fiber reinforcing materials. In the study, it was aimed to obtain the desired structure by applying hand lay-up process with epoxy resin matrix material on the composite to be produced with different fiber reinforcing materials and steel wire. In addition, the effects of arrangement and layer thickness of the sheets to be produced on impact strength and mechanical properties of the material were also examined. Epoxy resins were used as matrix material. Para-aramid, carbon, glass fibers, and steel wire sheets were used as reinforcing material. Hybrid structure obtained by cutting the sheets in certain dimensions was subjected to various mechanical and ballistic tests for ballistic performance review by applying curing processes at room temperature and in furnace and composite material with hybrid layer was determined to increase the strength.

**Keywords:** Glass Fiber, Carbon Fiber, Aramid Fiber,  
Microstructure, Ballistic



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#### **THE WELDABILITY OF AZ63 MAGNESIUM-AA6063 ALUMINUM ALLOYS USING FRICTION WELDING**

##### **ABSTRACT**

In this study, the weldability of AZ63 magnesium and AA6063 aluminum alloys using friction welding was investigated. AZ63 magnesium and AA6063 aluminum alloys each of which had a 12 mm diameter were used to fabricate the joints. The friction welding tests were performed by using a direct-drive type friction welding machine. After friction welding, interface regions of the welded specimens were examined by OM, SEM, EDS and X-Ray analysis to determine the microstructure changes. Microhardness and tensile tests were conducted to determine mechanical properties of the welded specimens. The experimental results indicated that AZ63 magnesium and AA6063 aluminum alloys using the friction welding technique for achieving a weld with insufficient strength under the welding conditions of rotation speed of 1500 rpm. Tensile strength values also confirmed this result.

**Keywords:** AZ63, AA6063, Friction Welding, Microstructure, Tensile Strength



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## GEOTHERMAL REGIONAL HEATING DISTRIBUTION SYSTEM OF CITGOL MUNICIPALITY

### ABSTRACT

In this study, application of regional heating system with geothermal energy was performed in Citgol Municipality subordinated Simav district, Kutahya city. Geothermal source is far away from town around 1800m. The distance between geothermal source and heating center is 110 m., and conditioned hot water was circulated between heat center and town and created city blocks with bringing thermal water taken from well to heat center. Production was performed as water temperature and flow rate obtained from well is 86°C and 37Lt/sec, respectively. Equal way system was used in inner-city project. The biggest advantage of this system is that pressure balance can be done. The disadvantage of this system is that initial investment cost is high. It was provided to heat with geothermal energy in all of Citgol Municipality, which has population around 3700, and 1125 houses.

**Keywords:** Citgol, Regional Heating, Renewable Energy, Geothermal Energy, Heat Distribution System



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## WIRELESS DATA COMMUNICATION WITH POLARIZATION MODULATION OF VISIBLE LIGHT

### ABSTRACT

The work on visible light communications has accelerated as a subject which has also become increasingly popular in recent years, with the understanding of the negative effects of radio waves on human health. The aim is to create a visible light communication system which can easily be applied to the everyday life and has a flexible structure that can use different light sources to transmit data. The system consists of a Twisted Nematic Liquid Crystal cell (TNLC cell) with 2 polarizers perpendicular to each other and an Arduino board as the transmitter with a smartphone as the receiver. The system transmits data using visible light as a source to a mobile device that is running on an android base with using the on-off keying method from wireless communication networks. The amplitude of the light is adjusted by controlling the polarization direction using a TN-LC cell. Two perpendicular polarizers placed on both sides of the cell results in a structure which reduces the light intensity when voltage is applied. The polarity of our liquid crystal was measured between 3.5-5 Volts and was found to be between 0-90° degrees. In this study, it has been shown that transparent window glass with electrodes can be filled with liquid crystal to make data transmittable. These types of windows can also be used as electronic curtains to prevent light from entering the window with addition of polarizers. The system we developed modulates the light emitted from sunlight or any light source, converts it into data, detects it through the receiver, and completes the data transmission by presenting it to the user. The system has advantages as low cost (144,11 TL , approx 30 Euro) and capacity to use all light types. This technology is very important when radio waves are blocked for communication (airplanes, operating rooms, etc.).

**Keywords:** Visible Light Communication System, Sunlight, Polarization, Twisted Nematic Liquid Crystal Cell, On-Off Keying



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### **SICAK DÖVME SONRASI KUMDA VE HAVADA SOĞUTULAN ÇELİKLERİN KESME KUVVETLERİ VE YÜZEY PÜRÜZLÜLÜK DEĞERLERİNİN İNCELENMESİ**

#### **ÖZ**

Bu çalışmada, 38MnVS6 mikroalaşımli ve 41Cr4 ıslah çelikleri kapalı kalıpta sıcak dövme sonrası kumda ve havada kontrollü olarak soğutulmuştur. Daha sonra numunelerin mikroyapı ve sertlik ölçümleri yapılmıştır. Sıcak dövme sonrası kontrollü olarak kumda ve havada soğutulan numunelerin, mikroyapı ve sertliklerindeki değişimin işlenebilirlik üzerine etkileri incelenmiştir. İşlenebilirlik deneyleri tornalama metoduyla soğutma sıvısı kullanılmadan kuru şartlarda yapılmıştır. Tornalama deneyleri kaplamalı karbür uç kullanarak kesme hızı ve talaş derinliği sırasıyla 180m/dak ve 0.6mm'ye sabitlenerek dört farklı ilerleme hızında (0.04, 0.08, 0.12 ve 0.16mm/dev) yapılmıştır. Her bir numune için yukarıda bahsedilen şartlarda yapılan tornalama deneyleri sonunda kesme kuvvetleri ve yüzey pürüzlülük değerleri (Ra) ölçülmüştür. Sonuçlar, farklı ortamlarda kontrollü olarak soğutulan numunelerin mikroyapı ve sertliklerinde meydana gelen değişikliklerin kesme kuvvetlerini ve yüzey pürüzlülüğünü önemli ölçüde etkilediğini göstermiştir.

**Anahtar Kelimeler:** Sıcak Dövme, Mikroyapı, İşlenebilirlik, Çelik, Kesme Kuvveti

### **THE INVESTIGATION OF SURFACE ROUGHNESS AND CUTTING FORCES OF STEELS COOLED IN SAND AND AIR AFTER HOT FORGING**

#### **ABSTRACT**

In this study, 38MnVS6 microalloyed and 41Cr4 heat-treatable steels were subject to a controlled cooling in air and sand after closed die hot forging. Subsequently, microstructure and hardness of the samples were measured. The effects of changes in microstructure and hardness on machinability of samples, which were controlled-cooled in air and sand after hot-forging, were investigated. The machinability test was carried out by turning method in dry conditions without using coolant. Turning tests were made by using coated carbide cutting tool at four different feed rates (0.04, 0.08, 0.12 and 0.16mm/rev) while cutting speed and cutting depth were fixed at 180m/min and 0.6mm, respectively. The cutting forces and surface roughness values (Ra) were measured for each sample at the end of turning tests which were conducted in conditions mentioned above. Results showed that changes in microstructure and hardness of samples, which were controlled-cooled in different mediums, significantly affected cutting forces and surface roughness.

**Keywords:** Hot Forging, Microstructure, Machinability, Steel, Cutting Force

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## **RESISTANCE OF COMPOSITE MADE OF MAT-CORK-KEVLAR MATERIALS AGAINST PISTOL BULLET**

### **ABSTRACT**

In civilian and military applications, it is very important to choose armor with the lowest weight as possible, providing full ballistic protection. The mortality rate of personnel using ballistic protection in the residential conflicts is much less than those who do not use it. The result of this situation varies depending on the diameter of the weapon, its effective range, the weather conditions and the strength of the object on the target against the type of projectile. The target may be living or inanimate and the situation we will stand on is to minimize damage of human by bullets as a living being. Today, armed conflicts are usually in residential areas. The diameter and barrel lengths of the weapons used in the residential areas are short. This is because the target distances are close and generally used for protection purposes. In this study, the materials considered to be able to contribute to ballistic protective materials were used. Through various experiments, resistance of composite consisting of mat-cork- kevlar materials against the pistol projectile was observed. The aim of the project was to work on a composite material with goat hair (mat), which was compacted with carbon-derived-kevlar fabric, and the cork (rubber-based) having pressure absorption property to reduce the impact of the pistol bullet.

**Keywords:** Composite Material, Kevlar, Mat, Cork, Ballistic



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### HASSAS DÖKÜM YÖNTEMİ İLE ÜRETİLEN ALAŞIMLARIN MİKROYAPI VE SERTLİK ÖZELLİKLERİNİN ARAŞTIRILMASI

#### ÖZ

Bu çalışmada, metalik biyomalzemeler grubundan yüksek mekanik ve biyouyumluluk özellikleri ile dikkat çeken alaşımlardan; Ti6Al4V alaşımı ve 316 L paslanmaz çelik malzemelerin hassas döküm yönetim ile üretilebilirliği üzerine çalışılmıştır. Deneysel çalışmalar, hassas döküm yöntemi ile Ti6Al4V ve 316 L alaşımlarının üretilebileceğini göstermiştir. Mikroyapıya bağlı olarak, sertlik değerleri geliştirilebilen ve kontrol edilebilen özelliklerin önemli bir aşamasını oluşturmaktadır. Bu amaçla hassas döküm yöntemi ile üretimi gerçekleştirilen Ti6Al4V alaşımı ve 316 L paslanmaz çelik malzemelerin mikroyapı ve sertlik özellikleri irdelenmiştir.

**Anahtar Kelimeler:** Hassas Döküm, Mikroyapı, Sertlik, Ti6Al4V, 316 L

### THE INVESTIGATION OF MICROSTRUCTURE AND HARDNESS PROPERTIES OF ALLOYS PRODUCED BY INVESTMENT CASTING METHOD

#### ABSTRACT

In this study, producibility of Ti6Al4V alloy and 316 L stainless steel materials which are from the group of metallic biomaterials with their high mechanical and biocompatibility properties by investment casting method were investigated. Experimental studies showed Ti6Al4V and 316L alloys can be produced by investment casting method. Depending on the microstructure, hardness values constitute an important step of the properties that can be developed and controlled. To this end, Microstructure and hardness properties of Ti6Al4V alloy and 316 L stainless steel materials produced by investment casting method were investigated.

**Keywords:** Investment Casting, Microstructure, Hardness, Ti6Al4V, 316 L



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### VO2MAX LEVELS AS A RELATION TO INSPECT THE ADAPTED PHYSIOLOGICAL TRAINING STATUS AMONG SOCCER PLAYERS

#### ABSTRACT

VO2max of 60ml/kg/min is suggested as the minimum fitness requirement for male soccer players to play at an elite level. While the average is reported to be in the range of 55 to 69ml/kg/min. Based on the above, this study test validity of fat indices on VO2max to estimate the adapted aerobic physiological profile among soccer players. Although to archives this objective, 148 well-trained first division soccer players under 18 years took part in the study. Tested by Cooper test as an index of cardiorespiratory fitness relative to physiological training response. Based on VO2max  $\pm$ 56ml/kg/min, as a protocol. Our result admits obesity in terms of BFP is a better index than BMI for predicting low VO2max. As well as VO2max up to  $\geq$ 56ml/kg/min is an advantage of physiological training response than its lesser. Admit in this study as a minimum fitness requirement to enhance the soccer demand.

**Keywords:** VO2max, Physiological Training Status,  
Soccer Players, Fitness

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|------|------------------------------------------------------------------------------|
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**STRUCTURAL AND OPTICAL PROPERTIES OF Cr<sub>2</sub>O<sub>3</sub>:TiO<sub>2</sub> NANOSTRUCTURE THIN FILM PREPARED BY PLD TECHNIQUE AS NO<sub>2</sub> GAS SENSOR**

**ABSTRACT**

Titanium oxied (TiO<sub>2</sub>) doped chromium oxide (Cr<sub>2</sub>O<sub>3</sub>) nanoparticles have been prepared by pulsed laser deposition (PLD) technique at different concentration ratio (3, 5, 7, and 9) wt % of TiO<sub>2</sub>. The effect of (TiO<sub>2</sub>) dopant on the average crystallite size of the synthesized nanoparticles was examined by X-ray diffraction. The morphological was discussed by atomic force microscopy AFM. Observed optical band gap value ranges from 2.60 eV to 2.75 eV was highly blue shifted in comparison with that of the bulk Cr<sub>2</sub>O<sub>3</sub> (~3eV). This indicated that the synthesized samples are being attributed to the enhancement of the quantum confinement effect. The gas response, sensitivity, and recovery times of the sensor in the presence of NO<sub>2</sub> gas were studied and discussed. In presence work we found that, the sensitivity increase when increase concentrations ratio from (3 to 5) % wt of TiO<sub>2</sub> and return to decrease over that. The optimum concentrations ratio for NO<sub>2</sub> gas sensitivity at 5%wt TiO<sub>2</sub> which revealed sensitivity of (168.75%) at 200°C.

**Keywords:** Cr<sub>2</sub>O<sub>3</sub>:TiO<sub>2</sub> Nanostructure, PLD Method, Structural Properties, Optical Properties, Sensitivity



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**APPLICATION OF THE ARROT METHOD TO THE ESTIMATION MAGNETIZATION IN  
MAGNETOINSTABLE SYSTEMS**

**ABSTRACT**

The magnetic instability of the system of collectivized electrons manifests itself in rare-earth intermetallic compounds  $RCo_2$  as well. In these intermetallids, the magnetic subsystem of collectivized electrons in the exchange field acting from the side of the rare-earth subsystem of localized  $4f$ -electrons. To determine the role of the  $f-d$  exchange interaction in the magnetic behavior of the zonal system, we studied the magnetic properties of the system  $Y_{1-t}Gd_t(Co_{1-x}Al_x)_2$ . It was revealed that, in the  $f-d$  systems with the magneto-instable zonal subsystem, the  $f-d$  exchange interaction leads to the emergence of the effects connected with the transition of this system from one magnetic state to another. The analysis of magnetization curves of these compounds was performed by using the Arrot method. The field dependence of magnetization of some compounds of the studied systems in the vicinity of the characteristic temperature of the susceptibility maximum is expressed by the equation  $H/M = A + BM^{1/2}$ .

**Keywords:** Magnetoinstable, Exchange Field,  
Exchange Interaction, Magnetization, Susceptibility



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**PLASMA SPECTROSCOPY DIAGNOSTICS TO V<sub>2</sub>O<sub>5</sub> IN RF MAGNETRON SPUTTERING  
WITH VARIABLE OF OPERATING POWER AND PRESSURE**

**ABSTRACT**

In the paper study, we investigate the basic characteristics of "magnetron sputtering plasma" using V<sub>2</sub>O<sub>5</sub> its deposited and target V<sub>2</sub>O<sub>5</sub> thin film. The "magnetron sputtering plasma" produces using "Radio Frequency (RF)" power supply and Argon gas. The intensity of the light emission from atoms and radicals in the plasma measure by using "optical emission spectrophotometer", and the appeared peaks in all patterns match with standard lines from NIST database and employ to estimate the plasma parameters, of computes electron temperature and the electrons density. The characteristics of V<sub>2</sub>O<sub>5</sub> sputtering plasma at multiple discharge provisos study at the "Radio Frequency" (RF) power ranging from 75-150 Watt and gas pressure 0.03 torr, 0.05 torr, and 0.007 torr. One can observe that the intensity of the emission lines increasing with increasing the sputtering power. We find that the electron temperature excess drastically from 0.95 eV to 1.11eV when the emptying gas pressure excess from 0.03 to 0.05 torr. On other hand excess electron temperature from 0.9 to 1.01 eV with increasing sputtering power from 100 to 125 Watt, while the electron density decreases from  $5.9 \times 10^{14}$  to  $4.5 \times 10^{14} \text{cm}^{-3}$  with increasing sputtering power. And electron density decreases with increasing of pressure from  $4.25 \times 10^{14}$  to  $2.80 \times 10^{14} \text{cm}^{-3}$ , But the electron density maximum values  $5.9 \times 10^{14}$  at pressure 0.03 torr.

**Keywords:** Plasma Spectroscopy, V<sub>2</sub>O<sub>5</sub>, Electron Density,  
Electron Temperature, Magnetron Sputtering



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## IDENTIFYING THE FAKE HONEY IN A MAGNETIC FIELD

### ABSTRACT

Lack of alternatives to detect fake honey, long analysis time and high cost of the analyses cause increase in fake honey which can interestingly pass the scientific analyses in laboratories. Detecting fake honey in bobbins with electromagnetic field thanks to help of honey's real owners has been succeeded in the world for the first time with this work. Concluding, after putting conductive honey, glucose, fructose and sugar syrup in tubes of four different bobbins, it's been observed that bees eat only real honey but not glucose or fructose of fake honey. When electrical charge on honey and other products is cut, bees eat all of them. After this application, fake honey will be detected with a low cost.

**Keywords:** Bee, Fake Honey, Electricity, Bobbin, Magnetic Field



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# INVESTIGATION OF THE GROUP VELOCITY OF THE VERTICALLY PROPAGATING HIGH FREQUENCY (HF) WAVES IN COLLISIONLESS IONOSPHERE

## ABSTRACT

The aim of this study is to calculate the group velocities of HF radio waves in different frequencies propagating vertically in the collisionless ionosphere. The Group Velocity ( $V_g$ ), which is defined by the group refractive index ( $m_g$ ), is important for investigating the propagation of high frequency waves in the ionosphere. In this study, group velocities of the HF frequency radio waves propagating vertically in the ionosphere are calculated for the different frequencies and modes at equinox and solstice date. The group velocities of the low frequency waves are calculated lower than the high frequency waves and the group velocities are changing with the equinox and solstice. Also, the low-frequency waves in all modes are reflected from the lower regions of the ionosphere while the high-frequency waves are reflected at higher altitudes.

**Keywords:** Ionsphere, Group Velocity, Vertical Propagation, High Frequency, Wave Propagation



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# AN INVESTIGATION ON FERTILITY CHARACTERISTICS OF SOWS AND GROWTH PERFORMANCES OF PIGLETS BRED IN A COMMERCIAL FARM

## ABSTRACT

In this study, some fertility characteristics such as fertility, survivality and growth performance of limited number of sows bred in commercial farm were compared between the two-birth season in a production year (autumn and spring). The necessary data for this study were obtained from two birth seasons in a production period of one year. Data were obtained from 84 sows which farrowed their 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> birth in autumn and their 629 piglets and 30 sows which farrowed their 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> birth in spring and their 224 piglets. The effect of farrowing season on stillborn was found to be significant ( $P<0.05$ ). It was found out that the effect of birth season, parity, litter size on pre-weaning survival rate of piglets borned indifferent birth seasons was significant ( $P<0.05$ ). It was determined that the effect of the birth season and litter size was significant in the growth performance of piglets ( $P<0.05$ ).

**Keywords:** Litter Size, Growth, Pig, Pregnancy Rate, Farm



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#### THE RELATIONSHIPS BETWEEN UDDER TRAITS AND MILK COMPOSITION AND SUBCLINICAL MASTITIS IN KARAYAKA SHEEP

##### ABSTRACT

This study was carried out to determine the relationships between udder traits and milk composition and subclinical mastitis in Karayaka sheep. For this purpose, udder types were determined and udder and teat traits were measured in 32 Karayaka sheep. In addition, milk fat, protein, lactose, dry matter contents, freezing point, somatic cell count (SCC) and pH were measured. The results of the study showed that udder type had an effect on right and left teat length, right and left teat diameter and teat distance ( $P<0.05$ ). In addition, udder type was found to have an effect on lactose and pH ( $P<0.05$ ). In addition, of the phenotypic correlations between udder and teat traits, only the correlation between RTL and SCC was found to be significant ( $P<0.05$ ). SCC was found to have high phenotypic correlations with fat, lactose ( $P<0.05$ ), dry matter, protein, freezing point and pH ( $P<0.01$ ).

**Keywords:** Sheep, Lactose, Udder Type, Somatic Cell Count, Karakaya Sheep



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**EFFECT OF BREEDING SYSTEMS AND MALE FEMALE RATIOS ON EGG PRODUCTION  
AND HATCHABILITY CHARACTERISTICS OF PARTRIDGES (A. GRAECA)**

**ABSTRACT**

This study was conducted to determine the effects of grown at breeding systems, male-female ratios on egg production and hatchability characteristics of partridges which were. In 1 male: 3 female, 1 male: 4 female, 1 male: 5 female partridge groups which were grown in mating cages, the values of 47.87%, 45.78 and 42.68 (P<0.01) for egg production, 24.42, 22.93 and 20.43g (P<0.05) for egg weight, 83.57%, 86.73, and 82.81 (P<0.05) for hatchability, 80.43%, 82.14 and 78.58 (P<0.05) for fertility rate, 84.47%, 85.31 and 80.15 (P<0.05) for hatchability of fertile eggs were obtained, respectively. In 3 male: 9 female, 3 male: 12 female, 3 male: 15 female partridge groups that were grown in group cages, the values of 44.53%, 43.35 and 40.08 for egg production, 23.74, 21.86 and 19.79 g for egg weight, 84.33%, 85.75, and 80.67 for hatchability, 79.83%, 80.35 and 75.47 for fertility rate were obtained, respectively (P<0.05).

**Keywords:** Partridge, Breeding Systems, Male Female Ratio, Egg Production, A. Graeca

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**EFFECT OF BREEDING SYSTEMS AND MALE FEMALE RATIOS ON EGG QUALITY  
CHARACTERISTICS OF PARTRIDGES (A. GRAECA)**

**ABSTRACT**

This study was conducted to determine the effects of grown at breeding systems and male-female ratios egg quality characteristics of partridges which were. In 1 male: 3 female, 1 male: 4 female, 1 male: 5 female partridge groups which were grown in mating cages, the values of 77.23%, 74.35 and 71.61 ( $P<0.05$ ) for shape index, 48.79%, 46.43 and 44.72 ( $P<0.05$ ) for yolk index, 1.51, 1.59 and 1.67 ( $P<0.05$ ) for albumin index, and 94.65, 91.59 and 88.41 ( $P<0.05$ ) for Haugh unit were obtained, respectively. In 3 male: 9 female, 3 male: 12 female, 3 male: 15 female partridge groups that were grown in group cages, the values of 74.28%, 72.35 and 70.57 for shape index, 46.24%, 44.36 and 42.53 for yolk index, 1.41%, 1.46 and 1.50 for albumin index, and 88.69, 85.65 and 82.26 for Haugh unit were obtained, respectively ( $P<0.05$ ).

**Keywords:** Partridge, Breeding Systems, Male Female Ratio, Egg Quality Characteristics, A. Graeca

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### **TÜRK GİYİM KUŞAMINDA BÖRK (ŞAPKA)**

#### **ÖZ**

Kişinin toplumsal yaşantısının bir ürünü olan kültür zaman süreci içerisinde ortaya çıkardığı ürünler ve kalıntıları ile aynı zamanda tarihe kaynak olma özelliğini de taşımaktadır. Giyim, bir toplumun estetik, dinsel, siyasal, ekonomik, sosyal, coğrafi ve kültürel birikimlerinin sonucu olarak biçimlenir ve kuşaktan kuşağa aktarılır. Her ülke farklı giyim kültürü ile onları diğer milletlerden ayıran özellikler taşır. Türk boylarının kıyafetleri çakşır, keçe, çizme, kaftan, kepenek, kürk hem soğuktan hem de güneşten koruyan börtklerden oluşmaktadır. Giyim kuşamda baştan ayağa kadar kalite, ihtişam, kullanışlılık estetik gibi unsurlar sosyal statü ile doğru orantılı olarak gelişme göstermektedir. Baş ile bedenın ayrı düşünülmesi mümkün olamaz. Baş fiziksel yönden olduđu kadar estetik açıdan da önemlidir. Kişinin giyim kuşamda kullanışlı, rahat estetik yönden en uygun olanı seçmeyi bilmesi gerekir. Baş öldükten sonra bile önemini yitirmemektedir. Bu durumun gerçek kanıtları mezar taşlarıdır. Mezar taşları börtkü (şapkayı) anlatmaktadır. Bu çalışmada; Moğolistan Orhun anıtları Çin, Asya, Avrupa, Anadolu müze ve kütüphanelerinden yararlanılarak Börtkü'nün (şapkanın) ilk aşamasından günümüze kronolojik olarak resim ve çizimlerle anlatılmaya çalışılacaktır.

**Anahtar Kelimeler:** Börtk (şapka), Kültür, Giyim, Müze, Kütüphane



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### **TÜRK GİYİM KUŞAMINDA TOGAR (ÇANTA)**

#### **ÖZ**

Türk toplumu yüzyıllar boyu zengin bir giyim kültürüne sahip olmuştur. Bu zenginlik giyim biçimlerinde olduğu kadar giyim objelerinde de kendini gösterir. Hayvancılıkla geçinen, bozkır atlısı Türkler giyecek ve silahlarını asabilmek için kalın kemerlere ihtiyaçları vardı. Bu kemerlere Türkler, giyim-kuşam aksesuarı olarak ve eşyalarını taşımak için: çanta kese, heybe gibi nesneler içinde kullanmışlardır. Kemere sabitlenmiş ya da omuza asılan çanta tipinin yanı sıra bel kuşağı içinde taşınan keseleri de çanta amaçlı kullanmışlardır. Orta Asya'da, kemere asılan çanta biçimi; karakteristik bir öge olarak Türk toplulukları arasında yaygınca kullanılmıştır. Göktürkler döneminde kemere takılan ve içine Çakmak taşı ile kav konan, deriden veya kumaştan yapılmış bu çanta çok yayılmıştır. Bu çantanın farklı biçimi, Altay, Tuva Orhun bölgesinde genellikle yuvarlaktır. "Yançuk" ya da "yançık" kemer üzerinde yana asılan çantadır. Bu çanta Orta Asya toplulukları arasında yaygındı. "Kapturga", kemerin sağ yanında taşınan deri çantadır. Bu çalışmada; Orta Asya'dan günümüze çanta örneklerini ve Göktürk heykellerindeki modellerini resimlerle belgeleyip tanıtmaktır.

**Anahtar Kelimeler:** Orta Asya, Türk, Çanta, Kültür, Model



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### **ALTERNATİF DİJİTAL EĞİTİM PLATFORMU OLARAK KİTLESEL ÇEVİRİMİÇİ AÇIK DERS (MOOC) UYGULAMALARI**

#### **ÖZ**

Birçok işlevinin yanı sıra bir eğitim platformu olarak yeni medya; her geçen gün biraz daha öne çıkan farklı eğitsel uygulamalarla geleneksel eğitime alternatifler sunmaya devam etmektedir. Zaman içinde eğitsel bağlamda yeni medyada temelde iki farklı oluşumun kendini gösterdiği görülmektedir. Bunlardan ilkinin geleneksel eğitim kurumlarına eklenilen yardımcı uygulamalar oluşturmaktadır. İkinci grupta ise tamamen dijital ortamın pratiklerine göre yapılandırılmış bağımsız dijital eğitim platformları yer almaktadır. Kitleli Çevrimiçi Açık Kurslar olarak tanımlanan MOOCs uygulamaları evrensel ölçekte yaygın ve popüler dijital eğitim uygulamaları olarak dikkatleri çekmektedir. Bu çalışmada MOOCs uygulamalarında öne çıkan kurumsallaşmış beş MOOCs platformu olan Khan Academy, EdX, Coursera, Udacity ve Udemy yapısal olarak incelenmektedir. Çalışma, çevrimiçi kursların dijital eğitim platformları olarak geleneksel eğitime nasıl bir alternatif oluşturdukları sorusundan hareketle MOOC'ların yeni medya pratiklerine göre nasıl yapılandığı, kurumsal işleyişin nasıl olduğu, geleneksel eğitim kurumlarıyla olan bağlantıları, genel kullanıcı profili gibi unsurlara yönelik tartışmalar üzerinden sistematize edilmektedir.

**Anahtar Kelimeler:** Khan Academy, EdX, Coursera, Udacity, Udemy

### **MASSIVE OPEN ONLINE COURSE (MOOC) PRACTICES AS ALTERNATIVE DIGITAL EDUCATION PLATFORM**

#### **ABSTRACT**

The new media, with its many functions including an education platform, keeps offering alternatives to traditional education via various instructional practices that become more prominent each day. It is seen that two main formations in the new media has stood out among others in time in educational terms. The first is auxiliary practices added to traditional education institutions. The second group consists of independent digital education platforms that are constructed totally on the practices of digital environments. MOOCs practices that refer to Massive Open Online Courses are noteworthy as universally widespread practices and popular digital education applications. This study dwells on five prominent and institutionalized MOOCs that are Khan Academy, EdX, Coursera, Udacity, and Udemy. Based on the question what kind of an alternative online courses as digital education platforms offer to traditional education, this study seeks to reveal how MOOCs are constructed according to the new media practices, how they operate in institutional terms, their connections with traditional education institutions, and general user profiles.

**Keywords:** Khan Academy, EdX, Coursera, Udacity, Udemy

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## RELATIONSHIP BETWEEN POPULARITY IN SOCIAL MEDIA AND SCHOOL SUCCESS

### ABSTRACT

The internet which is rapidly becoming widespread has gained a function that demolishes the social distance between people and that creates two-sided communication. Social media Networks which have become a kind of duct of social activity reduce social distance while destroy social contact. The face to face communication which is the essential requirement of humanity exists as an improvisation in an ordinary speed in real places however nowadays it exists as fictionalized in an extraordinarily fast in virtual places. This fiction world has changed the fact of reality in communication by replacing reality. Culture, consumption and communication forms have become consumed in virtual environment in the emerging new concept of reality. New forms of virtual consumption are further reducing to need to be tangible in close distance in real places. Social media has been one of the areas that has gained popularity frequently and has been used by every social area, especially by students since 2000s. This situation reflects many positive and negative impacts over the lives of the students at and out of the school. The aim of the research is to determine whether the school success of the students who are popular in the social media is effected or not, and to evaluate the dynamics of the use of social media by students in general. The scale for internet addiction and questionnaire was used in the research. It implemented to 280 high school students. A negative state has been seen between school success and popularity. On one hand there is an increase in the social media use whilst a decrease in school success and on the other hand the school success of the students who uses social media to a less degree is much higher.

**Keywords:** Social Media, Popularity, School Success,  
Internet Addiction, Virtual World

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### THE DAYS ON THE TRAM IN İZMİR

#### ABSTRACT

In today's world, governments are trying to make people use the public transportation more. Like everywhere in the world, tramways are an argument topic in Izmir too. But do the people know the history of the tramways in Izmir? No, they don't. Even the old citizens. When we talk about nostalgic tramways in Turkey the Taksim tramway is the first one that comes to our minds. May be people love it because of their nostalgic look. It is not mentioned much but there were tramways in Izmir, too. Substantially, Izmir was one of the first cities that had a chance to have tramways in Ottoman Empire. First, the horse powered tramway roads were built in 1880 in Kordon and it had been used until 1935. In 1950's the last tramway road was abolished by the city hall. This research was conducted for bearing a torch to the history of tramways in Izmir. We used the primary and the secondary sources and we talked with the people who witnessed the era. Two years ago, tramway roads were built again and Izmir citizens are using it now. Not having as many information as Istanbul tramway shows us how valuable our research is.

**Keywords:** Tram, Nostalgic, History, Public Transportation, Daily Life



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**THE ROLE OF THE FATHER IN THE COGNITIVE AND EMOTIONAL DEVELOPMENT  
OF CHILDREN BETWEEN 2-6 YEARS**

**ABSTRACT**

The parents play a very important role in the child's emotional development in the pre-school period. The communication and mutual interaction of the parents with the child also shapes the child's cognitive and emotional development as well as determining the child's place within the family. The father-child relationship plays an extremely important role in the personality development of the child. It is known that the age of childhood between the ages of 2 and 6, which is the pre-school period in which the psychological, social development and personality characteristics of the child are introduced, is very important. In this period, the authority of father-child relationship cannot be denied, besides the mother. In this study, it is aimed that the relationship between father and pre-school children between 2-6 years of age is kept in sight. 2 as the lower age limit and 6 as the upper age limit were accepted. The effective role of the father in the child's life since the time of the pregnancy affects the child's cognitive and emotional development. The study was consisted of between the ages of 2-6 children and their 51 fathers who voluntarily took place had different demographic structures. In this study three tests were applied; scales related on father role, mind theory on children, memory with self-control. According to the results of the research, it has been seen that the role of the father differs depending on the education and economic level; the effectiveness of this role influences children's development of mind, memory, self-control situations.

**Keywords:** Father-child Role, Pre-Schoolchild,  
Cognitive and Emotional Development,  
Child-Parents Relationship, Personality

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#### UNEMPLOYMENT EFFECTS ON SOCIAL PROBLEMS AND FAMILY

##### ABSTRACT

The fact of working forms the existence and continuity of the individuals in society. Thus, it is important to identify not only the financial but also the sociological outcomes of unemployment. Unemployment is a vital problem that damages family. As believing the main economical and sociological reflections of unemployment can be measured on family; making a research about the relationship among the family members, the roles, decision-making mechanisms and how the dynamics of the family gets affected by unemployment reveals the originality of this study. The numbers of the men and women that are registered on İş-Kur, who got married and had been unemployed for at least a year, have been chosen as sample is 69796-63% men and 37% women. On this projection, 450 men and 230 women had been studied in İzmir. The unemployment rates of 70% of people's level of education are listed as middle school and below. Their marriage age is listed as 20-24. They need family support to make ends meet as they live on minimum wage.

**Keywords:** Unemployment Types, Psycho-social Effects of Unemployment, The effect of Unemployment on Family, Unemployment in Turkey, Unemployment in the World





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**AFFECTING FACTORS OF SELF-EFFICACY, LIFE SATISFACTION, QUALITY OF  
LIFE OF PERSON IN THE PROBATION PERIOD**

**ABSTRACT**

The aim of this research is to examine the self-efficacy-  
efficacy, life satisfaction, well-being and quality of life factors  
affecting the participation of persons in the probation period in the  
workforce. Research is a quantitative and descriptive intervention  
study. 99 people who followed in the probation process constituted  
the sample of the research. Data collection tools used in the  
research consists of descriptive questionnaire including  
sociodemographic characteristics of the individuals and a series of  
scales. These scales; self-efficacy-  
efficacy scale, five factorial  
personality scale, perceived social support scale, life satisfaction  
scale, quality of life scale; WHO (five) is the goodness status  
index. The average age of participants is 32.97. Among the reasons of  
probation are substance use with 22.9%, theft with 19.8%. According  
to statistical analysis, there were no significant relationships  
between crime type and other socio-demographic characteristics, self-  
efficacy-  
efficacy, life satisfaction, well-being status and quality  
of life. Significant relationships were also found between  
personality traits and perceived social support subscales.  
Strengthening individual practices are needed in employment-based  
work to be carried out during the probation process. However, it has  
been necessary to implement social work practices that will ensure  
that their families are included in the process.

**Keywords:** Controlled Freedom, Personality Traits, Life Quality,  
Life Satisfaction, The Self-Efficacy-Efficacy



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## THE IMPORTANCE OF HYGIENE-MOTIVATION FACTORS OF EMPLOYEES IN DENİZLİ ACCOMMODATION SECTOR

### ABSTRACT

The study aimed to put forth the importance of hygiene-motivation factors that affects job satisfaction of employees in Denizli accommodation sector. The study was done in 2016 spring. Data was gathered from 670 employees via face to face survey. Firstly descriptive statistics then frequency analysis were done. As a result of the study, it is determined that hygiene-motivation elements of job satisfaction are important with at least 3.5 averages. The most important element of hygiene was found as payment and the most important element of motivation was determined as having authority and responsibility of work.

**Keywords:** Hygiene, Motivation, Accommodation, Tourism, Denizli



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## CONTENT ANALYSIS OF MEDICAL TOURISM ENTERPRISES WEB SITES

### ABSTRACT

Medical tourism can be defined as voluntarily or compulsorily travelling outside the country of residence for the purpose of receiving medical care and having holiday activities at the same time. It is stated in various researches that web sites are important elements in Factors affecting decision-making process of travelling patient. Therefore content analysis was done on 172 medical tourism enterprises web sites. Content analysis is a systematic method for summarising information, documents, or visuals and is a qualitative method of analysis. Hence, content in the visual or text is classified, coded and summarised according to specific dimensions. Using web sites as a marketing tool makes us to investigate the usefulness, presenting the needed information and other features of web sites.

**Keywords:** Medical Tourism, Web Site, Content Analysis, Business Administration



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### IS THERE AN EXIT FROM EXTERNAL DEBT TO GROWTH IN TURKEY?

#### ABSTRACT

External debt and growth relationship which is one of the ongoing debates in the economics literature, is difficult to reach a certain conclusion, because of the demand for external debt and the growth depend on different factors. Developing countries generally demand external debt for reasons such as savings deficit, current account deficit, budget deficit, and income inequality. The contribution of debt resources to the growth is possible only through productive investments which lead to increased production. Otherwise, it will be go to the way of payment of debts with new external debts and countries will be overburdened. In Turkey, which has substantial increase in the external debt stock, external debt-growth relationship was analyzed using ARDL technique for the 1980-2014 period. The results indicate that there is both short-term and long-term cointegration relationship between the GDP, external debt (DBRC), employment (ISTDM), foreign trade (DTIC), fixed capital (SSRM) and human capital (BSRM) variables. Findings show that 1% increase in foreign debt reduces GDP by 1.32% while increases SSERM and BSERM by 0.32% and 2.73% respectively. In summary, the external debt stock in Turkey exceeded the threshold value, the process of debt payment with new debts is accelerated, and Krugman's "debt-overhang" theory has been valid.

**Keywords:** External Debt, Economic Growth, Turkey, ARDL, Debt Overhang Theory

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**CONFIDENCE BASED ECONOMY OR ECONOMY BASED CONFIDENCE: TURKEY 2004-2017**

**ABSTRACT**

The view that the economy is driven by expectations and trust is goes up to Pigou (1927) and Keynes (1936). In this study, trust case in Turkey is involved as the Consumer Confidence Index (CCI) and Real Sector Confidence Index (RCI) and its relationship with the economic activity is analyzed. The relationship between the Composite Leading Index (CLI), which is a measure of economic fluctuations, and CCI and RCI, is addressed in the framework of two structural fracture cointegration technique of Hatemi'j (2008). During the analysis period (2004-2017), economic crises, policy changes, terrorist incidents, etc. factors had caused structural breakdowns in the macroeconomic variables. The models adopted regardless of this, are likely to produce deviant results. The findings of the model indicate that there are structural breakdowns in (2006: 1) and (2009: 8) when CCI is dependent variable and in (2007: 3) and in (2010: 12) when CLI is dependent variable. Also there is a cointegration relationship between variables. FMOLS results show that for the long term, the consumer confidence in Turkey is significantly affected by economic fluctuations, but in (2006: 1-2009: 8) (crisis) period this effect is negative. Findings draw attention to the existence of an environment of trust connected with economic activities rather than a trust based economy.

**Keywords:** Confidence Indexes, Economic Fluctuations, Structural Breakdown, Hatemi'j, FMOLS



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**RECOGNITION OF THE SOCIAL WORK OCCUPATION AND BENEFITING FROM SOCIAL SERVICES IN THE MANİSA CITY CENTER**

**ABSTRACT**

People can need to services which given by social workers when they encounter an obstacle to fulfill their social functions. In this context the aim of this research is to reveal the knowledge about social work profession and social assistances of adults who live in Manisa city center and the use of services and the factors that affect it. The research is a study on a sample representing 18 years of age and over in the cross-sectional relational screening model. According the results 66.2% of the participants didn't know the social worker and 62.6% of them didn't know social service institutions. These results vary according to the level of education and employment. As education level increases, awareness of social services is also increasing. In addition, as the number of households increases, the rate of benefiting from social services also increases. As a result, it has been determined that studies aiming to introduce social services should be done.

**Keywords:** Social Work, Social Services, Social Worker, Social Assistance, Right



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**ARE EXCHANGE RATES THE ONLY RESPONSIBLE OF FOREIGN TRADE PERFORMANCE  
IN TURKEY? AN ANALYSIS ON THE BASIS OF PRODUCT GROUPS**

**ABSTRACT**

Hızlanan ekonomik entegrasyon süreci, dış ticaret ile döviz kuru arasındaki ilişkiyi daha da belirginleştirmektedir. Türkiye’de de dış ticaretin yaklaşık %50’si AB ülkeleriyle gerçekleştirilmektedir. Döviz kurunun toplam dış ticaret yanında ara, sermaye ve tüketim malları ticareti üzerindeki etkilerinin araştırılması da ayrı bir önem taşımaktadır. Türkiye’nin dış ticaret dengesi (TB), mal gruplarına göre Türkiye ve AB Sanayi Üretim Endeksleri (IPI, ABIPI) ve Reel Efektif Döviz Kuru (REER)’in ele alındığı çalışmada mal gruplarına göre 2005M1-2017M9, toplam değerler için 2002M1-2017M9 dönemi verileri kullanılmıştır. ARDL (Sınır Testi) sonuçları, toplam ve mal grupları bazında TB ile REER ve IPI arasında uzun dönemli ilişki olduğunu göstermektedir. Hem toplam dış ticaret açısından hem de sermaye ve ara malları ticareti açısından REER ve IPI’nin, TB’yi olumlu etkilediği bulgulanmıştır. Tüketim malları ticareti açısından ise yalnızca IPI’nin etkisi pozitifdir. Döviz kurundaki değişmelerin mal grupları itibarıyla farklı etkiler yaratmasını, tüketim mallarının toplam ihracattaki payının görece olarak daha yüksek olmasıyla açıklamak mümkündür.

**Keywords:** Exchange Rates, Turkey, Foreign Trade Balance,  
Group of Goods, ARDL



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## **MİMARLIK EĞİTİM SÜRECİNDE YAZ OKULU MİMARİ TASARIM STÜDYOSU İZLENİMLER**

### **Öz**

Uygulamalı derslerin ağırlıkta olduğu bir eğitim süreci olan mimarlık eğitimde en önemli karakter mimari tasarım stüdyolarıdır. Mimarlık eğitimi içerisinde mimari tasarım stüdyoları öğrencinin yaratıcılığını göstermesine olanak sağlayan deneyimleme mekanlarıdır. Mimarlık eğitim sürecinde yasal bir zorunluluk olmamakla birlikte öğrencilerin talepleri doğrultusunda açılan yaz okulları eğitim sürecinin farklı birer deneyimleridir. Yaz okulları farklı üniversitelerden bir araya gelen öğrencilerin kendi eğitim kurumlarına ait mimari tasarım stüdyoları ile farklı eğitim kurumlarına ait mimari tasarım stüdyolarının yaklaşımlarını karşılaştırma olanağı bulması açısından kısa ama yoğun bir süreçtir. Bu çalışmada Trakya Üniversitesi Mimarlık Fakültesi 2017-2018 yaz döneminde açılan Mimari Tasarım 4 stüdyosu öğrencileri ile yapılmış stüdyo dersi eğitim süreci ve sonuçlarının değerlendirilmesi hedeflenmektedir.

**Anahtar Kelimeler:** Mimarlık Eğitimi, Yaz Okulu,  
Mimari Tasarım Stüdyosu, Stüdyo Dersleri,  
Eğitim Süreci





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## **PREŠOVA VE BİLAÇ TÜRK AĞIZLARININ GENEL İNCELEMESİ**

### **ÖZ**

Bu çalışmada Kosova Priştine’de bulunan Prešova ve Bilaç beldelerinde konuşulan Türk ağızları genel olarak incelenmiştir. Bu kapsamda daha önce askeri üssü olarak kullanılan dönemden günümüze Türk ağızında yaşanan değişim ve gelişim genel olarak ortaya konulmuştur. Konuyla ilgili çarpıcı örnekler analiz edilmiştir. Değişim ve gelişime ilişkin bazı örnekler verilmiştir. Sonuç olarak Kosova’da değişime uğrayan Türk ağızlarının belgelenmesi ve korunması yapılması gereken hususlar ortaya konulmuştur.

**Anahtar Kelimeler:** Prešova, Bilaç, Türk Lehçeleri,  
Dil Analizi, Kosova

## **GENERAL INVESTIGATION OF PREŠOVA AND BİLAÇ TURKISH DIALECTS**

### **ABSTRACT**

In this study, the Turkish dialects spoken in Prešova and Bilach areas in Pristina, Kosovo were examined in general. In this context, the change and development experienced in the Turkish-speaking period, which was previously used as a military base, has been put forward in general. Striking examples related to the subject have been analyzed. Some examples of change and development are given. As a result, efforts were made to establish the necessary documents for the documenting and protection of Turkish dialects in Kosovo.

**Keywords:** Prešova, Bilaç, Turkish Dialects,  
Language Analizeze, Kosovo

### **NOTE**

This article was presented as an oral presentation at the ISS2018 in Kosova.



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## **ECONOMIC CRISES, ANATOMY AND PROACTIVE MEASURES**

### **ABSTRACT**

Crisis is one of the concepts widely used in various branches of science and at the same time in daily speech. From a social sciences point of view, it is not easy to make a general definition of the crisis concept. Crisis; it is a concept that is difficult to define and open to debate among economists. The economic crisis is generally regarded as a macro-level state, an element that affects individuals and firms at micro level, a "development in the direction of worsening", "great distress", "depression" and "depression". It is beneficial to know the basic elements or characteristics of the crisis to call any situation a crisis. There are various opinions on the emergence of crises and the economic crisis is analyzed under various headings. A general component of these views also reveals the general anatomical structure of economic crises. In this study, these different opinions will be discussed with the crisis models in the third generation which are developed in order to explain the crisis theories which are in the scope of economic theory and crises emerging in different causes, and proactive measures for economic crises will be suggested.

**Keywords:** Economic Crises, Economic Crisis Theories, Crisis Analysis Models, Proactive Measures

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## PRİZREN JUPA BOŞNAKLARINA YABANCI DİL OLARAK TÜRKÇE ÖĞRETİMİNDE YAZMA EĞİTİMİ

### ÖZ

Son yıllarda yabancı dil olarak Türkçenin öğretimi Kosova'da gittikçe önem kazanan ve her geçen gün ilginin arttığı alanlardan biridir. Kosova'nın başkenti Priştine'den sonra ikinci büyük belediyesi konumundaki Prizren'nin Jupa yöresi Boşnak okullarında Yunus Emre Enstitüsü işbirliğiyle 6.-9. sınıflarında yabancı dil olarak Türkçe kursları yürütülmektedir. Boşnak öğrencileri yabancı dil olarak Türkçeyi dinleme, konuşma, okuma ve yazma olmak üzere dört temel beceriyle öğrenmektedirler. Öğrenilen dili somutlaştıran bir beceri olan yazma öğretimi belirli aşamalardan ve basamaklardan oluşmaktadır. Alfabe, kelime, cümle, paragraf ve metin öğretimiyle öğrencilere yazma bilgisi kazandırılırken, Boşnakçanın kendine özgü dil hususiyetleri sebebiyle bu süreçte bazı sorunlar ortaya çıkmaktadır. Yunus Emre Enstitüsünün esaslarıyla yabancı dil öğretiminde kullanılmakta olan metodolojilerinden de faydalanılacaktır. Jupalı Boşnak öğrencilerine Türkçenin öğretimi sürecinde tespit edilen sorunlar ışığında yazma eğitiminde dikkat edilmesi gereken hususiyetler bu çalışma kapsamında ele alınacaktır.

**Anahtar Kelimeler:** Yazma Eğitimi, Yabancı Dil Olarak Türkçe Öğretimi, Kosova, Yunus Emre Enstitüsü, Jupa Boşnakları

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**MULTINATIONAL COMPANIES- FOREIGN DIRECT INVESTMENT AND CURRENT  
IMPORTANCE FOR TURKEY**

**ABSTRACT**

There is no consensus on the concept of multinational companies, which is recognized and agreed upon by all. A wide variety of definitions are made. When the definitions are taken into consideration, factors such as the size of the company, its production, the value of assets owned abroad, and the extent of its worldwide spread are important. In terms of multinational companies, especially for underdeveloped and developing countries, the prosperity is great because it provides a number of economic and social benefits in the countries they invest in. Economic benefits primarily include improvements in technology and business processes, as well as GDP, productivity and employment growth. Since the direct investments of these companies will be permanent, the contributions to the country's economy and social development are high. Countries experiencing a lack of savings and financial resources as Turkey are in direct foreign capital investment expectation. It has been remaining on the agenda continuously that Turkey is highly in need of these investments in order to increase the employment with these new investments and to offset the balance of payments and to be capable in paying the foreign debts of it. For this reason, the dimensions, constraints and current prospects of the subject are evaluated by investigating with this study. For this reason, the dimensions, constraints and current prospects of the subject are evaluated by investigating with this study.

**Keywords:** Multinational Companies, Foreign Direct Investment, Foreign Debts, Current Account Deficit



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### ÜNİVERSİTE ÖĞRENCİLERİNİN İNTERNET BAĞIMLILIĞI BELİRTİLERİNİN PSİKOLOJİK İHTİYAÇLAR VE ÇEŞİTLİ DEĞİŞKENLERLE İLİŞKİSİNİN İNCELENMESİ

#### ÖZ

Bu çalışmanın amacı, üniversite öğrencilerinin internet bağımlılığı belirtilerinin psikolojik ihtiyaçlar ve çeşitli değişkenlerle ilişkisini incelemektir. Araştırma, 352 öğrenci ile yapılmıştır. Veriler, "Kişisel bilgi formu", "Young İnternet Bağımlılığı Testi Kısa Formu (Y.BT-KF)" ve "Psikolojik İhtiyaçlar Ölçeği" ile toplanmıştır. Verilerin analizinde pearson korelasyon analizi, bağımsız gruplar t testi, tek yönlü varyans analizi (ANOVA) ve basit doğrusal regresyon analizi kullanılmıştır. Psikolojik ihtiyaçlar ve internet bağımlılığı belirtileri cinsiyete göre anlamlı olarak farklılaşmaktadır ( $p < 0.05$ ). İnternet bağımlılığı belirtileri ve psikolojik ihtiyaçlarla interneti kullanma amacı arasındaki fark istatistiksel olarak anlamlıdır ( $p < 0.05$ ). İnternet bağımlılığı belirtileri ile psikolojik ihtiyaçlar arasında ( $r = .278^*$ ) düzeyinde negatif yönde anlamlı bir ilişki olduğu sonucuna ulaşılmıştır. İnternet bağımlılığı belirtileri arttıkça psikolojik ihtiyaçlar ( $r = -.278^*$ ) düzeyinde azalmakta, internet bağımlılığı belirtileri azaldıkça psikolojik ihtiyaçlar ( $r = -.278^*$ ) düzeyinde artmaktadır. Regresyon sonucuna göre ise, internet bağımlılığı belirtilerinin psikolojik ihtiyaçların yaklaşık %08'ini açıkladığı, internet bağımlılığı belirtilerinin psikolojik ihtiyaçların anlamlı bir yordayıcısı olduğu söylenebilir ( $p < .001$ ).

**Anahtar Kelimeler:** İnternet Bağımlılığı Belirtileri, Psikolojik İhtiyaçlar, Üniversite Öğrencileri, İnterneti Kullanma Amacı, İnternet Bağımlılığı

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## COHABITATION RELIGIOUS IN VILAYET OF KOSOVO

### ABSTRACT

Through this subject, I will try to address the very complex and very interesting issue of inter-religious coexistence or tolerance in the Kosovo vilayet during the XIX century and the beginning of the twentieth century, corresponding to the last period of Ottoman rule in the Albanian territories, even in Kosovo. Religious issues in Kosovo, many times, by trendy historians, appear in the perspective of daily political interest. Indeed, tolerance or religious coexistence in Kosovo during the 19th century has continued to prevail without the slightest problem. Although the Albanians had gone to the Islamic faith, they had no religious burden on Albanians of other religious (Christian) religions, nor in Christian churches (Catholic and Orthodox). It is established that Albanians of Islamic faith had maintained many Orthodox churches and monasteries in Kosovo. For the feast of Eid (Bajram), Christian Albanians went and wished them this holiday, while Muslim Albanians were doing the same for Christmas or Easter.

**Anahtar Kelimeler:** Kosovo, the Albanian territories,  
Catholic and Orthodox, Bajram,  
Muslim Albanians

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**THE EFFECTS OF SOME NEWLY SYNTHESIZED FLUORINATED ACETOPHENONE COMPOUNDS  
ON THE SEVERAL CANCER CELL LINES**

**ABSTRACT**

In this study, it was aimed to determine being chemotherapeutic agents capacity of four newly synthesized fluorinated acetophenone compounds (N,N-Ethylene-bis-5-fluoroacetophenone, N,N-Propylene-bis-3,5-difluoroacetophenone, N,N-Butylene-bis-3,5-difluoroacetophenone, N,N-Propylene-bis-5-fluoroacetophenone) by investigating the effect of these compounds on proliferation and mitotic activity of AT-2 and MAT-LyLu prostate cancer cell lines. Trypan blue analysis was performed, and the nontoxic concentration of the compounds, was determined as 5.0  $\mu$ M. Then, the compounds which prepared at different concentrations (0.01-5.0  $\mu$ M) were applied on AT-2 or MAT-LyLu cells for 24, 48, 72 hours, and the viable cell numbers were determined by Alamar Blue analysis. Mitotic indexes were determined. 5-fluorouracil, was used as a positive control. The investigational compounds were found to have no inhibitory effect on the proliferation of these studied cell lines. Moreover, two of these compounds increased the mitotic activity of the MAT-LyLu cells. It was realised that these compounds did not have sufficient activity to be a chemotherapeutic agent against the AT-2 and MAT-LyLu prostate cancer cells.

**Keywords:** Cancer, Fluorinated Acetophenone Compounds, Cytotoxicity, Mitotic Activity, Cell



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## OREM'S SELF-CARE DEFICIT THEORY-BASED ASSESSMENT ON THE MIDWIFERY REQUIREMENT AT LABOUR

### ABSTRACT

Labour is naturel process and an important vital experience that affects the health of mother. The role of midwife is great in labour. It's intended to provide a healthy labour experience for the pregnant with the caregiven during the labour and to obtain the healthy mother and baby with the minimum possible intervention, to provide active participation of the mother, to meet the needs and to meet the information need. Labour is a process in which the risk of morbidity and mortality in women's life is high. This process can affect the life of the life activities and therefore the self-care power, by affecting the woman from all sides. A person who meets the self-care of those who cannot afford their self-care is defined as a dependent caregiver. Dependent care agent in labour is a midwife. In this review, the evaluation of midwifery requirements in delivery according to "Orem Self-care Deficit Theory" will be examined.

**Keywords:** Midwife, Midwifery Care, Labour, Theory Of Self-Care, Orem 'S Self Care Theory





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#### THESIS BASED ON THEORY ON MIDWIFERY APPLICATION AREAS

##### ABSTRACT

This research aims to investigate the quality and quantity of thesis based on theory and model is midwifery application areas. The systematic review was carried out in the form of retrospective screening of all thesis related to the subject. In the review, the "YÖK Thesis Center" data base was scanned electronically using "pregnancy", "birth", "postpartum", "newborn", "theory", "model" with keywords. As the key word, 855thesis with "pregnancy", 1207thesis with "birth", 244thesis with "postpartum" with 995thesis "newborn" 1705 thesis with "theory", 2000thesis with "theory" 2000thesis with "model" were identified. 20thesis selected as a result of the examination and two thesis were excluded because not suitable for the purpose of study, 19 thesis were consist sample. The characteristics of thesis were analyzed with SPSS statistical program. In thesis, most commonly used the theory/theorem and model was determined respectively; Roy Adaptation Model, Dorothy Orthopedic Self Care Model, Planned Behavior Theory/theory and Watson Care Theory.

**Keywords:** Midwife, Pregnancy, Birth, Newborn, Model

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## MIDWIVES' KNOWLEDGE AND ATTITUDES RELATING TO UMBILICAL CORD BLOOD BANKING

### ABSTRACT

This research is cross-sectional study that was conducted to evaluate of midwives' knowledge and attitudes about umbilical cord blood banking. The research sample comprised of midwives who employee at delivery room/postnatal ward and participated voluntarily in the study. Data were collected by questionnaire form which included demographic characteristics of midwives and questions about cord blood banking and analysed using SPSS16.0. The mean age of midwives was 38.85±8.11% years. 52.75% of them reported that they had knowledge about the cord blood banking, 68.9%of them reported that the ideal time for informing women is the period of the before pregnancy period. It was found that 81.1% of midwives wanted an education about this issue. The midwives had a lack of knowledge about stem cells and cord blood banking and wanted more information. It is recommended that cord blood banking topic should be given at childbirth classes.

**Keywords:** Midwife, Cord Blood, Cord Blood Banking, Umbilical Cord, SPSS16.0



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**EBEVEYNLERİN DİJİTAL OYUN İLE İLGİLİ TUTUMLARI VE OYUNREKLAM  
(ADVERGAME) İÇERİKLERİNİN OKUL ÇAĞINDAKİ ÇOCUKLAR ÜZERİNDEKİ  
ETKİLERİ: ERÜ AKADEMİSYENLERİ ÖRNEĞİ**

**ÖZ**

Hayatımızdaki etkisini gün geçtikçe artırmakta olan dijital oyunlarda yeni reklam mecralarından biri de oyunreklam (advergame) olmaktadır. Bu mecra da markalar kendi temalı oyunlarını hazırlamakta ya da mevcut oyunlar içerisinde senaryoya göre kendi markalarını konumlandırmaktadırlar. Reklam açısından önemli bir hedef kitle olan okul çağındaki çocuklar satın alma kararını etkileyen müşteriler olduğu düşünüldüğünde dijital oyunlar ve oyunreklam mecraları onlara ulaşmak ve etkilemek amacıyla kullanılan bir yol olmaktadır. Bu etkiler içerisinde kuşkusuz en önemli ve üzerinde en çok durulana çocuklar üzerindeki olumsuz etkileri hakkında olanlarıdır ki bu nedenle ebeveynlerin reklam içeriklerinin çocuklar üzerindeki etkilerini algılamaları son derece önemlidir. Bu çalışma, ebeveynlerin dijital oyun ile ilgili tutumları ve oyunreklam içeriklerinin okul çağındaki çocuklar üzerindeki etkilerini algılamalarını ölçmek amacıyla yapılmıştır. Örnek olarak Erciyes Üniversitesi'nin Akademisyen Ebeveynleri seçilmiş ve bu doğrultuda veriler elde edilmiştir. Çalışmanın ebeveynlerde dijital oyun ve oyunreklam algısı üzerine veri sağlaması ile birlikte oluşabilecek olası zararlı etkilerin azaltılması ve faydalı yönde kullanılması konusunda yol göstereceği düşünülmektedir.

**Anahtar Kelimeler:** Dijital Oyun, Oyunreklam, Reklam, Ebeveyn,  
Okul Çağındaki Çocuklar



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**OTOLITH DIMENSIONS-TOTAL LENGTH RELATIONSHIPS OF COMMON SOLE (*Solea solea* (Linnaeus, 1758)) CAPTURED FROM NORTHEASTERN MEDITERRANEAN**

**ABSTRACT**

The common sole, *Solea solea* is one of the ten flatfishes in the Eastern Mediterranean. Common sole is excellent food fish with great commercial value throughout its distribution. This species is currently listed under "Data Deficient" on the IUCN Red List of Threatened Species. This study provides the first information on the otolith dimensions-fish length relationships of *S. solea* inhabiting Iskenderun Bay, northeastern Mediterranean Sea. Fish specimens were captured by commercial trawler at a depth of 50 to 80m from the Iskenderun Bay (Hatay, Turkey) between December 2017 and May 2018. Each fish was measured for total length to the nearest 0.1cm and weight (W) was weighted to the nearest 0.1g. and then the otoliths of the fish samples were removed. Right and left otolith lengths (OL), breadths (OB) weights (OW) were measured from each specimen nearest 0.001mm and 0.0001g respectively. A total of 69 fish specimens (24 female and 45 male) were collected. Mean lengths were 24.2cm in the all individuals, 25.0cm in the females and 23.8cm in the males; mean weights were 107.0g in the whole population, 122.2g in the females and 99.0g in the males. The difference of the total length and weight between the female and male fishes was not statistically significant ( $P>0.05$ ). According to the regression analysis results, a moderate positive relationship between the total length-otolith weight, otolith length, otolith breadth, and fish weight-otolith weight, otolith length and otolith width, was determined.

**Keywords:** Common Sole, *Solea solea*, Otolith Biometry, Gulf of Iskenderun, North-Eastern Mediterranean

|      |                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------|
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**LENGTH- WEIGHT RELATIONSHIP AND CONDITION FACTOR OF ARGENTINE  
(*Argentina sphyraena* Linnaeus, 1758) FROM ISKENDERUN BAY,  
NORTHEASTERN MEDITERRANEAN, TURKEY**

**ABSTRACT**

Argentine (*Argentina sphyraena* Linnaeus, 1758) is one of the deepsea fishes inhabiting in the North-eastern Mediterranean Sea. It is a Atlanto-Mediterranean species, distributed along the Mediterranean Sea and the eastern Atlantic from northern Norway to Western Sahara including southern Iceland, Faroe Islands, Shetlands. This study was carried out to determine the length-weight relationship and condition factor of argentine collected from northeastern Mediterranean. For this purpose, a total of 211 fish specimen (110 females and 101 males) of *A. sphyraena* were captured by a commercial trawler at depth of 300-400m. Female/male ratio was 1.09/1. Minimum-maximum length and weight of captured fishes were determined as 9.7-16.7cm and 4.6-24.46g for females and 10.0-15.5cm and 5.0-20.48 g for males respectively. Length-weight relationships of *A. sphyraena* were found as  $W=0.0050*L^{3.0171}$ ,  $R^2=0.93$ , SE of  $b=0.0034$  and 95% confidence intervals of  $b=2.968-3.270$ , t-test  $P<0.05$  for combined sexes;  $W=0.0046*L^{3.0478}$ ,  $R^2=0.95$ , SE of  $b=0.0026$  and 95 % confidence intervals of  $b=2.990-3.097$ , t-test  $P<0.05$  for females;  $W=0.0056*L^{2.9632}$ ,  $R^2=0.90$  SE of  $b=0.0031$  and 95% confidence intervals of  $b=2.896-3.021$ , t-test  $P<0.05$  for males. According to these values, the growth type of this species was isometric for females, males and sexes combined. Condition factor ranged from 0.4497 to 0.5871 for females and from 0.4381 to 0.5913 for males.

**Keywords:** Length-weight Relationship, Condition Factor,  
Argentine, *Argentina sphyraena*,  
Northeastern Mediterranean

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**COMPARATIVE STRUCTURAL AND ECONOMIC ANALYSIS OF RAINBOW TROUT  
(*Oncorhynchus mykiss*) HATCHERIES WITH DIFFERENT PRODUCTION CAPACITIES  
IN KAHRAMANMARAS PROVINCE, TURKEY**

**ABSTRACT**

In this study, the structural and economic aspects of rainbow trout (*Oncorhynchus mykiss*) hatcheries with the different production capacities in Kahramanmaras Province of Turkey were compared. The commercial structure of this enterprises was 60% person-family and 40% company-partnership. Statistically, the medium-sized (96.88%) hatcheries have higher capacity usage rate than the the small (69.98%) and large-sized (60.0%) hatcheries ( $P<0.01$ ). However, the production efficiency of the small (64.50%) and medium-sized (63.99%) enterprises were found higher ( $P<0.01$ ) than the large-sized enterprises. Average active capital was US \$181.165 in the small-sized, \$436.147 in the medium-sized and \$1.271.634 in the large-sized enterprises. Gross and net income values were \$40.213 and \$4.215 in the small-sized enterprises, \$189.412 and \$74.268 in the medium-sized enterprises and \$901.961 and \$69.074 in the large-sized enterprises. The medium-sized enterprises have highest economic rantability (17.03%) followed by the large (5.43%) and small-sized (2.33%) enterprises ( $P<0.01$ ).

**Keywords** Comparative Analysis, Hatchery, Kahramanmaras,  
Rainbow Trout, *Oncorhynchus mykiss*



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#### CLIMATE CHANGE (CC) IMPACTS ON FIELD CROPS: A GENERAL APPROACH

##### ABSTRACT

The field crops, like all other cultivated plants, are very sensitive to the CC with its inseparable components as known greenhouse gases (GHGs') emissions which were composed of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, Water Vapor, CFCs, etc.. For instance, rice (*Oryza sativa*) crop plant takes the biggest share of 94% from the GHGs emissions as CH<sub>4</sub>. As a strong member of the Green House Gases (GHGs) emission, the CH<sub>4</sub> has 300 times higher efficiency than the CO<sub>2</sub> and 20 times strong in this respect than the water vapour (or H<sub>2</sub>O) in the atmosphere. As known, the most dangerous of GHGs is the CO<sub>2</sub> for the all living organisms and non-living things. The GHGs emission has positive -up to one degree- (the CO<sub>2</sub> fertilization, etc.) and/or negative (acid rains, fog, floods, hail, etc.) impacts on flora. According to scientific research findings, the world's mean temperature (1,4-5,8°C) will rise by the end of the year of 2100 and affect the many plants, ecologies, ecosystems and climatological parameters as locally or regionally or continentally. Particularly, climate change will increase of the field crops' growth and development stages, water use efficiency (WUE) balance(s), accelerates the ripening, reduces the yield (dry matter) and nutrient input/taken, etc. with another morphologic, phenologic, metabolic and biochemical traits.

**Keywords:** Climate Change, Greenhouse Gases (GHGs),  
Global Warming Field crops, Flora



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**LEAF DISEASES OCCURRING ON BARLEY PLANTS IN BALA DISTRICT OF ANKARA  
PROVINCE, TURKEY**

**ABSTRACT**

Leaf diseases occurring on barley fields in Bala district of Ankara province, Turkey were determined. Survey studies were carried out in Bala district in 2018 and prevalence and severity of these diseases were determined. A total of 50 fields were examined. The following barley disease causing agents were found: *Drechslera teres* f. *maculata*, *Drechslera teres* f. *teres*, *Drechslera graminea*, *Rhynchosporium secalis* and *Erysiphe graminis* f. sp. *hordei*. Mean prevalences of these diseases were determined as *Drechslera teres* f. *teres* 30.7%, *Drechslera teres* f. *maculata* 11.7%, *Drechslera graminea* 1.16%, *Rhynchosporium secalis* 4.67% and *Erysiphe graminis* f. sp. *Hordei* 0.22%. *Drechslera teres* f. *teres* and *Drechslera teres* f. *maculata* were found as the most common disease agents. Disease severity values ranged between 4-8 using a 1-9 scale.

**Keywords:** Barley, *Hordeum vulgare*, Barley Leaf Diseases, Fungal Diseases, Ankara





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**CASE REPORTS ON THE BLACK SHAG (*Phalacrocorax carbo*) CAPTURED DURING FISHING WITH DIFFERENT FISH POT AT KEBAN DAM LAKE (ELAZIĞ-TURKEY)**

**ABSTRACT**

This study was conducted during two fishing seasons between July 2012-March 2013 and July 2013- March 2014. The research was carried out to evaluate the catching of *Phalacrocorax carbo* during the fishing with different types of pots (A and B type), in the three different depths (5-10, 11-15 and 16-20 m) and at different seasons. *Phalacrocorax carbo* was accidentally caught as a discard species with these fish pot models. Accordingly, 17 Black Shag were captured by the A type pot models and 5 Black Shag were captured by the B type models during the two fishing seasons. It was also found that the highest number of Black Shag captured was recorded in winter with 12 and followed in spring with 5, in autumn with 4 and in summer with 1 when evaluated according to the seasons. According to these results, it was found that *Phalacrocorax carbo* species dived into freshwaters to search for nutrients and accidentally entered into the fish pots.

**Keywords:** *Phalacrocorax carbo*, Fish pot, Depths, Discard Species, Inland Water



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**MAXIMUM LENGTH OF BARBUS ESOCINUS CAUGHT WITH SPORTIVE FISHING LINE  
AT KEBAN DAM LAKE (ELAZIĞ-TURKEY)**

**ABSTRACT**

This study investigated some fishing data of *Barbus esocinus* caught with sportive angling in Keban Dam Lake. This study is based on data obtained from two fishing's carried out between 01-07 July 2016. The hook size used at angles is 10 Nr and has a paddy, the main body of the angles is monofilament fishing line with 130mm in diameter. As a result of two samples, two fish belonging to *Barbus esocinus* were caught with amateur angling. The weights of these two fishes were determined between 155 and 180cm in length and between 50.2 and 73.0kg in weight, respectively. This was recorded as the largest size caught by amateur fishing in the Euphrates and Dicle river systems, especially in the Keban Dam Lake. In addition, the maximum age of *Barbus esocinus* with 50.2kg was determined as 15+. Keeping these kinds of records together with the development of amateur fisheries in our country will be important.

**Keywords:** *Barbus esocinus*, Maximum Length, Sportive Fishing, Keban Dam Lake, Elazığ



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ON THE OCCURRENCE OF MEDITERRANEAN FLYINGFISH, *Cheilopogon heterurus*  
(Rafinesque, 1810) IN MERSİN BAY, TURKEY

**ABSTRACT**

Mediterranean flyingfish, *Cheilopogon heterurus* (Rafinesque, 1810) inhabits in small groups in the epipelagic area. This species is Atlanto-Mediterranean and distributed from Denmark to Gibraltar. Up to now, occurrences of Mediterranean flyingfish in Turkish waters were recorded by Meriç et al. (1996) but biometric data of this species is scarce. The present is to report the existence of Mediterranean flyingfish captured in Mersin Bay, North-eastern Mediterranean. On March 23th 2018, *Cheilopogon heterurus* samples were caught by commercial purse seine fishing in Mersin Bay, North-eastern Mediterranean at about 72 m of depth. Mediterranean flyingfish samples were immediately transported in the ecophysiology laboratory, Fisheries Faculty, Fırat University where they were identified, sexed and photographed. Morphometric characteristics of fish samples were measured to the nearest 1 mm and the weight of each fish was taken with a digital scale to the nearest 0.01 g. *C. heterurus* specimens were preserved at the Museum of Fisheries Faculty, Fırat University. A total of five *C. heterurus* individuals were examined. Mean (Minimum-Maximum) values of total length (TL), fork length (FL), standart length (SL) and weight (W) of fish were 28.68 (26.5-31.1) cm, 23.64 (22.3-25.9) cm, 21.76 (20.5-23.5) cm and 133.29 (119.82-155.68) g, respectively. The study provides also new maximum lengths (31.1cm) for *H. rondeletii* from the north-eastern Mediterranean.

**Keywords:** Mediterranean Flyingfish, *Cheilopogon heterurus*, Mersin Bay, Turkey, Rafinesque



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# CHARACTERISTICS OF BIOLOGICAL SYSTEMS IN İZMİR ÇAMALTI SOLAR SALTWORKS, TURKEY

## ABSTRACT

The multi-pond coastal solar salterns, consist of a series of conjunctive saltponds, with a gradient of salinities ranging from seawater to NaCl precipitation. The region was an anthropogenic supralittoral zone exploited for sea salt, which is progressively concentrated by evaporation. Solar salt works activities are normally ordinarily in wetlands, more specifically in salt swamps, which are rich in biodiversity and represent a disturbing biological systems which make them environmentally relevant. Many species live, feed and reproduce in a salt marsh and in a solar salt works area. They provide biological diversity, including bacteria, macro and microalgae, Artemia, plants, birds, reptiles, fish and invertebrates and contribute to flood prevention and improved water management. In this study, some biological characteristics of Çamaltı marine salterns were investigated, which is the largest marine coastal solar saltworks in Turkey investigated.

**Keywords:** İzmir, Turkey, Saltworks, Biological Characteristics, Artemia, Algae, Çamaltı



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**FEEDING OF *Pomadasys stridens* (Forsskal, 1775) (Actinopterygii: Haemulidae) IN İSKENDERUN BAY (Eastern Mediterranean Sea)**

**ABSTRACT**

The striped piggy (*Pomadasys stridens*) were collected from Iskenderun Bay (East Mediterranean Sea) by a fishing vessel at depths of 18-20 m and 156 stomachs were examined. For stomach quantitative description contents and to evaluate relative importance of various prey items in diet, percentage frequency of occurrence (%FO), percentage composition by number (%N), percentage composition by weight (%W) and the index of relative importance (%IRI) were used. To assess possible changes in diet due to fish size, samples were grouped as <8, 8-10.0, 10.1-12.0, 12.1-14.0 and >14.1cm, arbitrarily. Total of 14 major systematic groups were found. Concerning overall diet composition, Copepoda, Decapoda, Amphipoda and Polychaeta were the most important prey groups in terms of %IRI, %N, %F, and %W in all size groups. Morato index was used to identify the prey items preferred by *Pomadasys stridens* in both general feeding and all size groups, and the Copepoda primary preference was followed by Polychaeta, Amphipoda, Decapoda and Mysidacea, at varying rates according to the length groups.

**Keywords:** Striped Piggy, *Pomadasys stridens*, Stomach Content, Iskenderun Bay, Actinopterygii: Haemulidae



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**YABAN MERSİNİ EKSTRAKTI İLAVELİ BALIK (*Cyprinus carpio*, Linnaeus, 1758) KÖFTELERİNİN MİKROBİYOLOJİK KALİTESİNİN BELİRLENMESİ**

**ÖZ**

Çalışmada, farklı oranlarda yaban mersini ekstraktı ilave edilmiş balık köftelerinin soğuk muhafazada mikrobiyolojik değişimleri incelenmiştir. Araştırma yaban mersini ekstraktının balık köftelerindeki mikrobiyel gelişmeyi önleyebilmek ya da kontrol altına alabilmek için ne kadar etkili olduğunu belirlemek amacıyla yapılmıştır. Araştırmanın materyalini Keban Baraj Gölü'nden avlanarak elde edilen aynalı sazan balıkları (*Cyprinus carpio* Linnaeus, 1758) teşkil etmiştir. Belirli oranlarda balık kıyması, galeta unu, soğan, kırmızıbiber, karabiber, maydanoz ile balık köftesi hamuru oluşturularak bu içeriğe ayrıca %1 ve %2 oranlarında yaban mersini ekstraktı ilave edilerek kontrol ile birlikte üç deneysel grup elde edildikten sonra örnekler strafor paketlerde 4±1°C'de muhafazaya alınmıştır. Muhafazadaki örneklerin 3 günde bir mezofil aerob bakteri, psikrofil aerob bakteri ve maya-küf sayımları yapılarak ürünlerin mikrobiyolojik değişimleri belirlenmiştir. Sonuçta elde edilen veriler değerlendirildiğinde, muhafaza süresince yaban mersini ekstrakt ilavesinin balık köftelerinin mikrobiyolojik nitelikleri üzerine olumlu etkisinin olduğu kanaatine varılmıştır.

**Anahtar Kelimeler:** Balık Köftesi, Yaban Mersini Ekstraktı, Mikrobiyolojik Kalite, *Cyprinus carpio*, Linnaeus

|      |                                                                                                              |
|------|--------------------------------------------------------------------------------------------------------------|
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**POTENTIAL ECOLOGICAL RISKS OF HEAVY METALS IN RAJA CLAVATA AND  
SEDIMENT FROM SINOP SHORES OF THE BLACK SEA**

**ABSTRACT**

Heavy metals in Thornback ray and sediment samples from Sinop shores of the Black Sea were determined. Amounts of the metals in fish were within the permissible levels recommended by well-known organizations. The accumulation pattern in the dorsal tissues is in the order of Zn>Cu>Pb>Hg>Cd. According to the sediments, bio-concentration factor for Cd was the highest (1.4) followed by Hg (1.28). The other metals recorded values<1 indicating the fish species have not accumulated significantly heavy metals from the sediment. The target hazard quotient of all the metals was quite below 1 (0.032). Consumption of Raja clavata from Sinop shore of the Black Sea can thus be concluded that there is no health risks so far as these heavy metals investigated are concerned.

**Keywords:** Black Sea, Raja Clavata, Heavy Metals,  
Target Hazard Quotient, Bio-Concentration Factor



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**POLLUTANT BIOACCUMULATION IN THE WEDGE CLAM FROM IGNEADA SHORES OF  
THE BLACK SEA**

**ABSTRACT**

In this study a bivalve species *Donax trunculus* (Linnaeus, 1758) was chosen as bio-indicator organism. The purpose of the study is to appraise the amounts of heavy metals in *D. trunculus* from Igneada coasts of the Black Sea. Heavy metal concentrations were measured with ICP-MS. Heavy metal amounts in the wedge clam were Hg, 0.015-0.025; Cd, 0.026-0.042; Pb, 0.17-0.40; Cu, 0.68-1.13; Zn, 3.1-4.67 µg g<sup>-1</sup> wet wt. Hg and Pb amounts were higher in whole tissues of the wedge clam in winter and autumn than those in summer and spring. On the other hand Cd was lower in summer than other seasons. Cu levels were higher in spring and autumn than the other seasons, whereas Zn levels were high in winter and autumn. Hg, Cd, Pb, Cu and Zn levels in *D. trunculus* from Igneada coasts of the Black Sea were quite lower than the allowable limits by European Community Regulation (EU) and Turkish guidelines.

**Keywords:** Heavy Metals, *Donax Trunculus*, Allowable Limits, Igneada, Black Sea





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**YABAN MERSİNİ (Blue berry) VE KURT ÜZÜMÜ (GOJİBERRY) EKSTRAKTLARIYLA ZENGİNLEŞTİRİLMİŞ KITOSAN KAPLAMANIN GÖKKUŞAĞI ALABALIK (*Onchorhynchus mykiss walbaum 1792*) FİLETOLARININ PİYASA KOŞULLARINDA MİKROBİYOLOJİK DEĞİŞİMLERİNİN İNCELENMESİ**

**Öz**

Çalışma, yaban mersini ve kurt üzümü ekstraktları ilaveli kitosan kaplamanın, gökkuşağı alabalığı filetolarında mikrobiyel gelişmeyi önleyebilmek ya da kontrol altına alabilmek için ne kadar etkili olduğunu belirlemek amacıyla yapılmıştır. Çalışmada, Elazığ ilinde bulunan bir gökkuşağı alabalığı yetiştiricilik tesisinden taze olarak alınan *Oncorhynchus mykiss* kullanılmıştır. Filetolar, normal, kitosan kaplı, yaban mersini ekstraktı ilaveli kitosan kaplı, kurt üzümü ekstraktı ilaveli kitosan kaplı olmak üzere toplam 4 deneysel grup olarak strafor paketler içerisinde +8 °C'de muhafazaya alınmıştır. Muhafazadaki örneklerin 3 günde bir mezofil aerob bakteri, psikrofil aerob bakteri, maya-küf ve *Enterobacteriaceae* bakteri sayımları yapılarak ürünlerin mikrobiyolojik olarak değişimleri belirlenmiştir. Sonuç olarak; elde edilen veriler değerlendirildiğinde, kitosan ve yaban mersini ile kurt üzümü ilaveli kitosan kaplamaların filetoların mikrobiyolojik nitelikleri üzerine olumlu etkisinin olduğu kanaatine varılmıştır.

**Keywords:** Kitosan, Yaban Mersini Ekstraktı, Alabalık, Kurt Üzümü Ekstraktı, *Oncorhynchus mykiss*



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**DETERMINATION OF FRESHWATER FISH PRODUCTION DURING 1990-2017 IN  
AEGEAN AREA, TURKEY**

**ABSTRACT**

Aegean Area is the fifth biggest area of Turkey. The largest rivers are Bakırçay, Gediz, Büyük Menderes and Küçük Menderes. Important lakes are Marmara and Bafa (Çamiçi) also; Demirköprü, Kemer, and Adıgüzel dam lakes are other water resources. According to TÜİK 2017, total fish (seafood) production is 630.820 tonne, and aquaculture production is 276.502 tonne. Also, 32.172 tonne is comes from freshwater area. In Aegean Area, Turkey, the most fishing or cultured fish species are given as; *Squalius cephalus*, *Anguilla anguilla*, *Leuciscus cephalus*, *Abramis brama*, *Oncorhynchus mykiss*, *Cyprinus carpio*, *Silurus glanis*, *Tinca tinca*, *Sander lucioperca*, during the last 30 years. On the other hand the most important cultured fish species and production cities are indicated as *Salmo trutta* (Muğla, Denizli, Aydın), *Cyprinus carpio* (Manisa, Uşak, Denizli), *Sparus aurata* (Muğla and İzmir) and *Dicentrarchus Labrax* (Muğla and İzmir). The aim of the study is to show of statistical data during the last 27 years of fishing and aquaculture activities in Aegean Area.

**Keywords:** Freshwater Production, Freshwater Aquaculture,  
Aegean Area, Turkey

|             |                                                                              |
|-------------|------------------------------------------------------------------------------|
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**EXAMINATION OF MARINE FISH PRODUCTION THE LAST 30 YEARS IN AEGEAN  
AREA, TURKEY**

**ABSTRACT**

In Turkey, 8333 km of coast line is along the country and Black Sea, Aegean Sea, Marmara Sea and Mediterranean Sea are surrounding the land. Total fish production is 630.820 tonne in Turkey which 269.991 of comes from marine fish production. In addition 14.8 % of total marine fish production in Turkey obtained from Aegean Sea since from 1990. According to data from Turkish Statistical Institute (1990-2017), the most fish species are fishing from Aegean Sea are given respectively as; *Sarpa sarpa*, *Boops boops*, *Spondyliosoma cantharus*, *Oblade melanura*, *Diplodus annularis*, *Serranus scriba*, *Dentex dentex*, *Zeus faber*, *Auxis rochei*, *Scomber scombrus*, *Dicentrarchus labrax*, *Sardina pilchardus*, *Aquatina squatina*, *Sparus pagrus*, *Katsuwonus pelamis*, *Xiphias gladius*, and others. In the study, fish production data are evaluated with time series and it has been found that almost 70 fish species are fishing from the Aegean Sea. However, diversity and quantity of fish species are decreased day by day and fish stocks need to be monitoring.

**Keywords:** Marine Fish Species, Production, Aegean Area, Turkey

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# GENERAL EVALUATION OF IMPORT/EXPORT INTERACTION IN TURKISH SEAFOOD AND AQUACULTURE INDUSTRY

## ABSTRACT

Turkey is important provider country for seafood and aquaculture production to foreign countries. In 2000s', export seafood production was 14.533 tonne and 46 million dollar was earn. But, in 2017s' 854 million dollar was income and 156.681 tonne of products exported. In 2000s, imported quantity is 44.230 tonne, and 36 million \$ was paid, but 100.444 tonne was imported, and 230 million \$ was given in 2017. The study is focussed on import/export interactions of Turkish Aquaculture Seafood Industry, and make a new model on time series by means of small square methods, and given foresee for future expectations until 2030, and obtained exponential model on import/export quantity by using Turkish Statistical Institute. According to results, 538.346 tonne of product will export to foreign countries and earns 8 billion \$, in contrast 2.5 billion \$ will pay for 290.452 tonne of imported product, in 2030. Thus, imported quantity and their value should be decreased.

**Keywords:** Seafood, Aquaculture, Product, Import, Export, Turkey



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**JOB SAFETY AND ACCIDENTS IN MARINE FISH FARM (SEA BREAM/SEA BASS) IN  
İZMİR/TURKEY**

**ABSTRACT**

Recently, occupational health and safety is important situation in Turkey. One of dangerous occupation is aquaculture workers and engineers especially marine fish farms, hatcheries, and sea cages. İzmir is main area of marine aquaculture/sea cages farms in Aegean Sea. Many employees are effect form heavy duty conditions, shift works, and accidents. Main threatens in working area is musculo-skeletal problems. In the study, three marine fish farm which cultured sea bass/sea bream, was examined in northern and western side - Çandarlı and Çeşme area - of İzmir, Aegean Sea. In the sea cage and hatchery areas, it was interviewed with 32 employee. Face to face survey conducted with workers and descriptive tests SPSS was using with data. According to results, musculo skeletal problems and accidents were important for all workers in fish farms. Also, eye and ear problems, gastrointestinal and respiratory disorders were another disease agents. Heavy job situations, shift works, and low incomes were serious factors for aquaculture employees.

**Keywords:** Occupational Risks, Safety, Accidents,  
Aquaculture, Marine Fish Farm,



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## EVALUATION OF FRESHWATER FISHERIES BASED ON LANDING STATISTICS, TURKEY

### ABSTRACT

The aim is evaluation of landing freshwater fish, economics, and some assessment on future situation. By using with fishery statistics, economic values of the captured based freshwater fishes were investigated covering period 2002-2017. 21 commercial species were indicated such as; chub (*Leuciscus cephalus*), trout (*Salmo* spp.), bream (*Abramis brama*), Beysehir bleak (*Alburnus akili*), sand smelt (*Atherina boyeri*), tarek (*Chalcalburnus tarichi*), tench (*Tinca tinca*), catfish (*Clarias gariepinus*), bighead goby (*Neogobius* spp.), mullet (*Mugil* spp.), rudd (*Scardinius erythrophthalmus*), frog (*Rana* spp.), pike perch (*Perca fluviatilis*), snail (*Helix* sp.), common carp (*Cyprinus carpio*), transcaucasian carp, wels (*Silurus glanis*), eel (*Anguilla anguilla*), pike (*Esox lucius*), crayfish (*Astacus leptodactylus*) gibel carp (*Carrasius* sp.). They were captured with gill or trammel nets. Production was 29773 tons in 2017; Tarek (7310t.), common carp (7036t.) and sand smelt (5871t.) were leading. Results showed gradual decrease for 2018-2019 estimated to be 28369-27426 tons respectively. Capture freshwater value was 108384520 TL representing 4% of fisheries economy.

**Keywords:** Freshwater, Capture, Landing, Economy, Fish



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## USAGE OF UNDERWATER ROBOTS AND THEIR LEGAL SITUATION

### ABSTRACT

The study mainly aims to state that legal situation and usage of underwater robots. It has known that nearly two-thirds of earth consists of ocean which is complex system with living and non-living resources, such as fishes, marbles, energy sources (subsea gas, oil etc.). Thus, underwater research is necessity for human beings. Several types of underwater robots including remotely operated vehicles (ROVs), and autonomous underwater vehicles (AUVs) have developed as effective tool to explore the ocean. Also, works mainly aims to explain view of underwater researchers/academicians such as fisheries/aquaculture that uses investigation and measurements of deep sea and sea life. During the studies legal issues of underwater robots including major areas of law such as robots law, environmental law, maritime law, insurance law, and international law may be seen. Hence, legal situation and usage of underwater robots will be stated for existing and future arrangements especially from the aspect of the International Conventions, the European Union and Turkish Law.

**Keywords:** Underwater Robots, Law, Fisheries, Aquaculture, Legal Situation



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**USE OF CHIA MUCILAGE EDIBLE COATING CONTAINING GOJI BERRY EXTRACT TO  
ENHANCE MICROBIOLOGICAL QUALITY OF RAINBOW TROUT FILLETS DURING COLD  
STORAGE**

**ABSTRACT**

In this study, microbiological quality changes of rainbow trout fillet covered with chia mucilage incorporated with 1% (v/w) goji berry extract, as natural preservatives, during storage at 4°C were investigated. The treatments were C: control, C1: Chia mucilage covered, C2: 1% w/v goji berry extract containing chia mucilage covered. The shelf life of the samples was determined periodically using microbiological analyzes (total viable counts, psychrotrophic bacteria, mould-yeast). During the storage period, C1 and C2 groups showed lower microbiological growth ( $p < 0.05$ ). 1% goji berry extract containing treatment increased the shelf life of rainbow trout fillets as compared to the control samples.

**Keywords:** Edible coating, Chia Mucilage, Quality,  
Rainbow trout, Goji berry extract

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**IMPACTS OF CHITOSAN EDIBLE COATINGS ENRICHED WITH NATURAL PRESERVATIVES on THE CHEMICAL AND SENSORIAL QUALITY OF RAINBOW TROUT (*Oncorhynchus mykiss*, Walbaum 1792) FILLETS DURING STORAGE**

**ABSTRACT**

In this study, the chemical and sensory changes of rainbow trout fillets coated chitosan, blueberry extract added chitosan and gojiberry extract added chitosan during cold storage (8C) have been investigated. Treatments were C1: control, C2: chitosan, C3: chitosan +1% w/v blue berry extract, C4: chitosan+1% w/v gojiberry extract. During storage, the samples were analyzed in every three days period as chemical (pH, TVB-N, PV and TBARs) and sensorial (Colour, odour, appearance, general acceptable). During the storage period, C3 and C4 groups showed lower pH, PV, TBA, and TVB-N values than C1 and C2 groups. The sensory results are in parallel with chemical results.

**Keywords:** Chitosan Coating, Natural Preservatives,  
Chemical Quality, Sensorial Quality, Rainbow Trout

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## **DANS ÖĞRENCİLERİNİN PİYANO DERSİNE YÖNELİK TUTUMLAR**

### **Öz**

Bu Araştırmada, Lisans Düzeyinde Dans Eğitimi Alan Öğrencilerin Piyano Dersine Yönelik Tutumlarının Saptanması Amaçlanmıştır. Ayrıca, Dans Öğrencilerinin Piyano Dersine Yönelik Tutumlarının, Cinsiyet, Yaş, Piyano Dersi Başarısı, Müziksel İşitme Okuma Ve Yazma Dersi Başarısı, Mezun Olduktan Sonra Müzik Öğretmenliğine Yönelme Değişkenlerine Göre Farklılaşıp Farklılaşmadığı İncelenmiştir. Çalışma Grubunu 2017-2018 Eğitim-Öğretim Yılında Sakarya Üniversitesi Devlet Konservatuarı Türk Halk Oyunları Bölümü'nde Öğrenim Görmekte Olan 49 Öğrenci Oluşturmuştur. Veri Toplama Aracı Olarak Kişisel Bilgi Formu Ve G. Otacioğlu Tarafından Geliştirilen "Piyano Dersi Tutum Ölçeği" Kullanılmıştır. Bu Ölçek Ve Kişisel Bilgi Formundan Elde Edilen Veriler Kruskal Wallis-H Ve Mann Whitney U Analiz Teknikleri İle Analiz Edilmiştir. Dans Öğrencilerinin Piyano Dersine Yönelik Olumlu Tutuma Sahip Oldukları Sonucuna Ulaşılmıştır. Dans Öğrencilerinin Piyano Dersine Yönelik Tutumları Cinsiyet, Yaş, Piyano Dersi Başarısı Değişkenlerine Göre Anlamlı Farklılık Göstermemektedir; Müziksel İşitme Okuma Ve Yazma Dersi Başarısı, Mezun Olduktan Sonra Müzik Öğretmenliğine Yönelme Değişkenlerine Göre İse Anlamlı Bir Farklılık Göstermektedir.

**Anahtar Kelimeler:** Piyano Eğitimi, Piyano Dersi, Tutum, Piyano Dersine Yönelik Tutum, Dans Öğrencileri



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## KONSERVATUVAR ÖĞRENCİLERİNİN YAŞAM BOYU ÖĞRENME YETERLİKLERİ VE MÜZİKAL ALGILAMALARI ARASINDAKİ İLİŞKİNİN İNCELENMESİ

### Öz

Bu araştırmanın amacı, konservatuvar öğrencilerinin yaşam boyu öğrenme yeterliklerinin çeşitli değişkenler açısından incelenmesi ve yaşam boyu öğrenme yeterlikleri ile müzikal algılama düzeyleri arasındaki ilişkinin belirlenmesidir. Çalışma grubunu 2017-2018 eğitim-öğretim yılında Sakarya Üniversitesi Devlet Konservatuvarı'nda öğrenim gören 102 öğrenci oluşturmaktadır. "Yaşam Boyu Öğrenme Yeterlik Ölçeği", "Müzikal Algılama Ölçeği" ve Kişisel Bilgi Formu'ndan elde edilen veriler Kruskal Wallis-H, Mann Whitney U ve Spearman Brown Sıra Farkları Korelasyon Katsayısı ile analiz edilmiştir. Konservatuvar öğrencilerinin yaşam boyu öğrenme yeterliklerinin cinsiyet ve sınıf değişkenlerine göre anlamlı farklılık göstermediği, bireysel çalgı ve müzik türü tercihi değişkenlerine göre anlamlı farklılık gösterdiği görülmüştür. Konservatuvar öğrencilerinin yaşam boyu öğrenme yeterliklerinin "öz yönetim yeterlikleri", "inisiyatif ve girişimcilik yeterlikleri", "bilgiyi elde etme yeterliği", "dijital yeterlikler", "karar verebilme yeterliği" alt boyutları ile müzikal algılama düzeylerinin "müziğe karşı olan ilgi ve tutum" alt boyutu arasında anlamlı bir ilişki saptanmıştır; yaşam boyu öğrenme yeterliklerinin "dijital yeterlikler" alt boyutu ile müzikal algılama düzeylerinin "genel müzik bilgisi ve kültürü" alt boyutu arasında anlamlı bir ilişki saptanmıştır.

**Anahtar Kelimeler:** Yaşam Boyu Öğrenme, Yaşam Boyu Öğrenme Yeterliği, Müzikal Algılama, Müzik Eğitimi, Sakarya



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## THE USE OF MARBLE WASTE IN BUILDING SECTOR AND INDUSTRY

### ABSTRACT

Today, the increasing population brings with it the increasing amount of waste material. In order to reduce the damage caused by waste, recycling practices should be given importance. The purpose of recycling; to reduce the amount of waste garbage that becomes an environmental problem and to obtain economic gain by using these wastes. Recent scientific studies have focused on the recycling of waste materials. In this regard, for application engineers, marble dust and marble mud wastes have been one of the precious wastes to be used for recycling. Due to a lot of marble reserves in Turkey, assessing the marble waste in different areas is of great importance for our country. In this study, general information about marble, marble powder, marble sector and marble wastes is given. The usage areas of marble wastes were investigated. In this way, to examine the work done, to have ideas; deficiencies that are missing or not working is intended to foreground.

**Keywords:** Waste, Marble, Recycling, Industry, Building

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**INVESTIGATION OF THE MECHANICAL BEHAVIOR OF NOTCHED AND UN-NOTCHED  
CONCRETE SPECIMENS**

**ABSTRACT**

The strength of the concrete and the fracture energy must be at the aimed level. This study aims to investigate the effect of fracture load on the compressive strength and splitting tensile strength for different situations. This experimental study, the fracture loads and the splitting tensile strengths of a series of notched and un-notched specimens were determined under different loads and load types and the relationship between them was examined. It was determined that as the fracture load on an un-notched specimen increased, the splitting tensile strength increased linearly and proportionally. The standard deviation was found to be high with the increased stability of the loading. The specimens were often seen to be fractured by the "cutting method according to Irwin". It was observed that as fracture load increased, the compressive strength and the splitting tensile strength increased linearly. A good conformity was determined between the fracture load and the splitting tensile strength.

**Keywords:** Notched and Un-notched Concrete Specimens,  
Mechanical Behavior, Fracture Load,  
Compressive Strength, Splitting Tensile Strength

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