Fifth International Mediterranean Congress on Natural Sciences, Health Sciences and Engineering

MENSEC V

Contemporary Issues in Science and Engineering

CONGRESS PROGRAM

&

ABSTRACT BOOK

Bandirma Onyedi Eylul University & Komsija

Budapest, Hungary

September 10-12, 2019

CONGRESS PROGRAM & ABSTRACT BOOK

FIFTH INTERNATIONAL MEDITERRANEAN CONGRESS ON NATURAL SCIENCES, HEALTH SCIENCES AND ENGINEERING (MENSEC V)

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FOREWORD

Fifth International Mediterranean Congress on Natural Sciences, Health Sciences and Engineering (MENSEC V) with the main theme of "Contemporary Issues in Science and Engineering" is jointly organized by the Bandirma Onyedi Eylul University and Komsija-Association of Balkan Intellectuals from Sarajevo, and also supported by the following universities: Istanbul Sabahattin Zaim University, International University of Sarajevo, University of Donja Gorica and Sivas Cumhuriyet University. The congress will be held in September 10-12, 2019 in Budapest, Hungary. In the congress, over 70 oral/poster presentations will be made by scholars from over 50 universities/institutions from 12 countries (Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Ghana, Indonesia, Israil, Kosovo, North Macedonia, Turkey and the United States of America).

The congress aims to bring together international scholars and researchers in the areas of natural sciences, health sciences, sport sciences and engineering in order to provide a forum for dialogue and exchange of recent research findings and ideas related to the challenges that Balkan and Mediterranean countries. The Scientific and Organizing Committees are founded by different universities in the region. We have received a large number of applications that has given us the opportunity to choose the most excellent of them in order to reach higher scientific level.

I would like to thank all the participants for their enthusiasm to contribute to this project and their willingness both to keep to tight deadlines and to accept editorial recommendations; to all the Scientific and Organizing Committee members, for their patience, support and tolerance. Special thanks for the rectors of our partner universities for their valuable support. We hope to see you all in our next congress.

Sincerely Yours,

Prof. Dr. Suleyman Ozdemir, Rector
Bandirma Onyedi Eylul University

Fifth International Mediterranean Congress on Natural Sciences, Health Sciences and Engineering

MENSEC V

Contemporary Issues in Science and Engineering

Bandirma Onyedi Eylul University & Komsija

Budapest, Hungary

September 10-12, 2019

MENSEC V

CONGRESS PROGRAM

CONGRESS PROGRAM

FIFTH INTERNATIONAL MEDITERRANEAN CONGRESS ON NATURAL SCIENCES, HEALTH SCIENCES AND ENGINEERING (MENSEC V)

September 10-12, 2019
Danubius Hotel Flamenco
Budapest, Hungary

Tuesday, September 10

08:30 - 09:30	Congress Registration
10:00 - 10:30	Opening and Keynote Speeches
10:30 - 11:00	Opening Coctail
11:00 - 12:30	Sessions 1A, 1B, 1C, and 1D
12:30 - 14:00	Lunch Break
14:00 - 15:30	Sessions 2A, 2B, 2C and 2D
15:30 - 16:00	Coffee Break
16:00 - 17:30	Sessions 3A, 3B, 3C and 3D

Wednesday, September 11

10:00 - 12:30	Yunus Emre Institute, Budapest Branch Visit*
12:30 - 13:30	Lunch Break
13:30 - 17:00	Budapest Castle and Palace Visit*

Thursday, September 12

University of Vienna Visit*

Tuesday, September 10

OPENING SESSION
KEYNOTE SPEECHES
ROOM: RAVEL

09:30 - 10:30	Metin Toprak	Developing a Tool for Quality Assurance and Accreditation of a New Generation Thematic-Technical University
	Eva Erdelyi	Transition – from Talents to Academic Life

SESSION 1A
BIOLOGY/HEALTH
ROOM: PARK 1
Session Chair: Dr. Shlomo Yitzchaik

11:00-12:30	Shlomo Yitzchaik	Conformationally Adaptive Neuropeptides Centered Biosensors
	Budi Hastuti Riskita Suryaningtias	Encapsulation of Curcumin on Cellulose Derived Membrants to Increase Their Stability and Bioviability
	Ebenezer D.O. Ansa Prosper Anaba	Patterns of Enteric Bacteria Infection in Some Suburbs of Accra
	Blazenka Gasparovic Ivna Vrana Spoljaric Tihana Novak Snjezana Kazazic and et. al.	Perspetive of Lipids as Carbon Carriers to Deep Ocean in Global Warming Scenario
	Nihat Yumusak	Patomorphology and Apoptosis in Experimental Diabetic Nephropathy
	Ugur Ozgurbuz Sema Gencur Feyzan Ozdal Kurt Murat Yasar Ozkalkanli and et. al.	The Effects of Tramadol on Cancer Stem Cells and Metabolic Changes in Colon Carcinoma Cells Lines

SESSION 1B
HEALTH SCIENCES
ROOM: PARK 2
Session Chair: Dr. Aydan Ercan

11:00-12:30	Leyla Tevfikoglu Pehlivan Furkan Ozbek Elif Ayaz Samet Sahin	Evaluation of Body Image Perception and Soft Drink Consumption Patterns of Trakya Health Sciences Faculty Students: A Faculty Sample
	Emel Yesilkayali	University Students' Perception of Nursing Home: Example of Metaphor Analysis
	Leyla Tevfikoglu Pehlivan Seher Can Bilge Polat	The Effect of Caffein Consumption on Health Sciences Faculty Students' Sleep Quality
	Sena Oksuz	Social Work Students' Perception of Social Worker through Metaphor Analysis
	Elif Karacanoglu Aydan Ercan Basri Cakiroglu	Determining the Effects of Nutrition Education and Weight Management on Erectile Dysfunction (ED) Cases

SESSION 1C
BIOLOGY/HEALTH
ROOM: PARK 3
Session Chair: Dr. Muhammet Dogan

11:00-12:30	Muhammet Dogan	Effect of Different Indole-3-Butyric Acid and Naphthalene Acetic Acid on in Vitro Rooting of Limnophila aromatica (Lamk.) Merr.
	Bugrahan Emsen Ayca Emsen Gokhan Sadi Ali Aslan	Cytotoxic Activity and Induction of Apoptosis on Liver Hepatocellular Carcinoma Cells by Olivetoric and Physodic Acid: An In Vitro Study
	Muhammet Dogan	Determination of the Effect of Different Agar Applications on In Vitro Shoot Regeneration of Rotala rotundifolia (Buch-Ham. ex Roxb) Koehne, a Medicinal Aquatic Plant
	Betul Coskun Onal Zeynep Ozdemir	Investigation of Heavy Metal Content of Lake Water and Degirmen Creek in South of Salda Lake (Burdur)
	Bugrahan Emsen Hasan Turkez Ali Aslan	Comparative Evaluation of In Vitro Anti-Alzheimer's Potentials of Several Lichenic Substances

SESSION 1D
IT/MATHEMATICS
ROOM: PARK 4
Session Chair: Dr. Hasan Cicek

11:00-12:30	Ibrahim Cinar	Multiple-bit-per-cell Nanoscale Semiconductor Memory Device
	Serhat Aniktar Yavuz Ozdemir	The Importance of Designing New Generation Learning Environments in Architecture Education
	Flamure Sadiki Ylldrita Seferi Alit Ibraimi Florinda Imeri	Introduction of Post Algebra to Ternary and Real Semigroups
	Eylem Guzel Karpuz Esra Kirmizi Cetinalp	Rewriting System and Some Results on Crossed Product of Groups
	Ibrahim Cinar	Magnetization and Thermal Fluctuation of Artificial Spin Ice Network
	Hasan Cicek	Negative Impact of Malfunctions in Applying Inefficient Supply Chain Management (SCM) on Profit

SESSION 2A
HEALTH SCIENCES
ROOM: PARK 1
Session Chair: Dr. Demet Unalan

14:00-15:30	Demet Unalan Aysegul Aydin Emre Karasu Ozge Ustun and et. al.	Analysis of Relationship between Perception of Organizational Justice and Glass-Ceiling Syndrome in Female Health Workers
	Aysegul Aydin Demet Unalan Fatih Altan Emre Karasu and et. al.	Analysis of Relationship between Burnout Level and Emotional Labor Behaviour in Nurses
	Fatih Altan Sinan Tarsuslu	Determination of Career Stress Levels of University Students
	Ahmet Ozturk Mustafa Mumtaz Mazicioglu Nihal Hatipoglu Betul Cicek and et. al.	Body Composition Reference Percentiles of Healthy Turkish Children and Adolescents
	Fatma Yigitoglu Aydan Ercan M. Emel Tufekci Alphan Mendane Saka and et. al.	The Effect of Ramadan Fasting on Metabolic Parameters of Type 2 Diabetic Patients under Nutrition Education and Modified Diet Therapy

SESSION 2B
AGRICULTURE
ROOM: PARK 2
Session Chair: Dr. Harun Kaman

14:00-15:30	Yener Kortan Tosun Halil Erdem	Effect of Bread Wheat Varieties on Grain Sterol (Campesterol, Stigmasterol and Betasitosterol) Concentration of Zinc Applications
	Harun Kaman Hamide Gubbuk Ahmet Tezcan Mehmet Can and et. al.	Effect of Irrigation on Strawberry Plants in Greenhouse Conditions
	Ahmet Kinay Halil Erdem	Comparison of Hybrid and Standard Tobacco Varieties in Terms of Yield, Quality and Nutritional Level
	Melike Baran Ekinci	Determination of LL06 and LL601 Events by Real-Time PCR in Rice Samples

SESSION 2C
SPORTS/HEALTH
ROOM: PARK 3
Session Chair: Dr. Selcuk Bugdayci

14:00-15:30	Ozlem Zengin Hayri Demir	Validity and Reliability Study of Attachment Styles Scale in Relationships between Coach and Athlete
	Mehmet Akif Elen Canahmet Boz Pinar Una l Aydin Orkun Aydin	Socio-Demographic Variables and Diagnostic Profiles of Students at the Counseling Center of International University of Sarajevo
	Selcuk Bugdayci Ugur Abakay	Examining the Leadership Tendencies and Self Confidence Characteristics of Athletes Concerning Certain Variables
	Sultan Harbili Erbil Harbili	The Biomechanical Analysis of the Snatch Lifts in Elite Turkish Women Weightlifters
	Tulin Filik Arda Borlu Demet Unalan	Root Cause Analysis of Fallings in a University Hospital

SESSION 2D
HEALTH SCIENCES
ROOM: PARK 4
Session Chair: Dr. Nuray Guzeler

14:00-15:30	Ayse Ozcetin Senoz I. Tayfun Uzbay	Investigation of the Role of Agmatine and Polyamine Pathway in Schizophrenia by Acoustic Startle Reflex of Prepulse Inibition in Rats
	Emine Erdem Yagmur Sezer Efe	Smart Phone Addiction, Peer Relations and Loneliness in Adolescents
	Zaur Humbatov Narmina Sadixova	Morpho Anatomical Characteristic of the Cormation of Structural Elements of the Vegetative Organs Artemisia Szovitsyana
	Nuray Guzeler Cagla Ozbek Murat Kalender	Some Quality Parameters of Buffalo Milk and Dairy Products Produced in Cukurova Region
	Harun Ozbey Yagmur Sezer Efe Emine Erdem	Social Anxiety and Parental Attitude in Adolescents

SESSION 3A
HEALTH SCIENCES
ROOM: PARK 1
Session Chair: Dr. Leyla Tevfikoglu Pehlivan

16:00-17:30	Yagmur Sezer Efe Harun Ozbey Emine Erdem	Examination of Nursing Theses on Complementary and Alternative Therapies Related to Pain in Newborns in Turkey
	Harun Ozbey Emine Erdem Yagmur Sezer Efe	Subacute Sclerosing Panencephalitis and Nursing Approach: A Case Report
	Seher Can Leyla Tevfikoglu Pehlivan Tuba Dursun Irem Tekin and et. al.	Determination of Fish Consumption Habits and Preferences of the Students in the Faculty of Health Sciences at Trakya University
	Nuray Guzeler Elif Ari	Recent Situation of School Milk Program in Turkey
	Yagmur Sezer Efe Harun Ozbey Emine Erdem	Preterm Newborn Care with Mechanical Ventilation: Example of Concept Map

SESSION 3B
ENGINEERING
ROOM: PARK 2
Session Chair: Dr. Bulent Buyuk

16:00-17:30	Fatmagul Tolun	Use of Aluminum Alloys in Automotive Industry
	Ali Karpuz Hakan Kockar Salih Colmekci Mehmet Uckun	Thickness Dependence of Fe/Al Multilayers
	Bulent Buyuk A. Beril Tugrul Nuran Ay	Neutron Attenuation Properties of Hexagonal Boron Nitride-Titanium Diboride Composites for Pu-Be Neutron Howitzer
	Huseyin Bekir Yildiz	Novel Thylakoid Membrane Based Photobioelectrochemical Fuel Cells for Generating High Photocurrent by Using Photosynthesis
	Ercan Karakose Mustafa Keskin	Microhardness and Microstructural Characteristics of AL-3NI-3SB Alloy

SESSION 3C
VETERINARY SCIENCES
ROOM: PARK 3
Session Chair: Dr. Kudret Yenilmez

16:00-17:30	Kudret Yenilmez Sezai Arslan Servet Kilic	The Effect of Single and Twin Pregnancy on Complete Blood Count, Mineral Substance, IgG and Lamb Birth Weight in Advanced Pregnant Sheep and Their Newborn Lambs
	Cigdem Cebi Sen Aylin Akbulut Gokhan Koca Adnan Kirmit and et. al.	The Protective Effect of Vitamin D against Radioiodine (RAI) Therapy Damage to Male Fertility
	Birten Emre Omer Korkmaz Ismail Koyuncu Selim Comakli and et. al.	Relationship between Thiol/Disulphide Homeostasis and Endometrial Inflammation in Postpartum Dairy Cows
	Nihal Eren Adem Senunuver Kudret Yenilmez	Hormonal, Ultrasonographic and Clinical Evaluation of the Effects of Aglepristone Used in Termination of Unwanted Pregnancies in Cats
	Fatmagul Tolun Ergun Demir	Welding Technology and its Effects on Human, Environment and Food Chain

SESSION 3D
ENGINEERING
ROOM: PARK 4
Session Chair: Dr. Savas Erdem

16:00-17:30	Gokhan Turan Ahmet Hakan Onur	Optimization of Production Planning in Open Pit Mining
	Babak Vaheddoost Selda Cakir Aysegul Kaymaz Selin Ozteber	Experimental and Theoretical Evaluation of the Flow-Net in Non-Homogenous Soil
	Abdulkerim Car Mehmet Inanc Onur	Soil Improvement with Addition of Unburnt Tile Dust
	Cagri Cerik Vedat Arslan	Optimization of Operation Parameters of Water Only Cyclone
	Ezgi Gurbuz Savas Erdem	Mechanical Response and Bond Strength of GFRP Rebar in PVA Fiber Reinforced Concrete

Wednesday, September 11 **POSTER SESSIONS** **(Main Lobby)**	
Edita Alili – Idrizi Lulzime Ballazhi	Rational Use of Analgesics in Headache – Migraine Treatment
Aysun Ozkan Deniz Ekinci Ozan Salim Asli Toylu and et. al.	Comparison of PD1+ Regulatory T Cells Levels At Bone Marrow in New Diagnosis Multiple Myeloma and Idiopathic Thrombocytopenic Purpura Patients
Ferit Idrizi	An Intelligent PD-FLC Controller Design Based on CNC Feed Drive Control Requirements
Lulzime Ballazhi Edita Alili – Idrizi	Coumarin Derivatives Block Growth and Induce Apoptosis in Breast Cancer Cell
Sule Pinar Cinfer Rumeysa Kayhan Afife Binnaz Hazar Yoruc Ebru Aydin and et. al.	Development of Hydrophobic Surface Properties of Textile Polyesters by Sol-Gel Method
Busra Ozturk Aysu Karakas Aydinoglu Afife Binnaz Hazar Yoruc	The Effects of Different Drying Methods on the Silica Nanoparticles
Gulcin Genc Oguler Sazci Afife Binnaz Hazar Yoruc	Effect of Different Cleaning Solutions on In Vitro Biocompatibility of Commercial Dental Implant
Atanas Chapkanov Tatyana Dzimbova Kiryl Perchamlijski	Application of Vibrational Spectroscopy for Spectral Elucidation of 2-Aminopyridine Derivatives
Arlinda Haxhiu Zajmi Kaltrina Skenderi Sara Elezi	The Knowledge and Opinions About Medical Cannabis Among Community Pharmacists
Ayse Akgun Demir Ahmet Ademoglu	Emotion Classification Using Multilinear Regression Method
Elda Lamce Llambrini Sota	Game Theory and Some Applications

OPENING SESSION

KEYNOTE SPEECHES

Time: 09:30-10:30

Developing a Tool for Quality Assurance and Accreditation of a New Generation Thematic-Technical University

Dr. Metin Toprak, Istanbul University & Komsija
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In Turkey, digitalization of curricula, teachers, course materials, and educational technologies is relatively slower when compared with the ones in economic sectors and state services in general. In this study, we proposed a model for a new generation university in a digitalized society. The Council of Higher Education classifies universities in three categories (mission) to respond to technological and economic developments in the societal life: research, regional-development oriented and thematic universities. At national level, a digital transformation office acts as a coordination and orchestration body among governmental institutions in order to carry and transform public services into digital environment. The private sector naturally has to be digitalized by national and international severe competition.

The tool developed in this study (Toprak et al. 2019) based on the model developed by Toprak et al. (2019). That model aims to compensate for coordination gaps in the traditional university hierarchical structure, which is designed as department, faculty board, university board and senate, from administration to governance. Five innovations can be mentioned in terms of organizational and functional configuration of a university model proposed there: (i) profile of graduate and mission of the new generation university in the fields of education, research and community services, (ii) policy development and implementation offices, (iii) university ecosystem consultation and steering committee and other committees and boards, (iv) concept courses and branded courses, (v) coop education and solution partnerships. The Rector's Office acts as an executive committee to prevent coordination gap in the proposed model.

A checklist has been developed for the processing of that model and hence it is made possible to measure the performance of an applied university and degree of compatibility with the model. Thus, the framework and content of the mechanism and tools traditionally used in quality assurance and accreditation will need to be updated in line with this model.

It is recommended that the CoHE must develop nation-wide sets of accreditation and evaluation tools for specific types of universities, such as research university, regional development-oriented university, mission university, social sciences university, health sciences university. Here, a tool is proposed for thematic-technical university which prioritizes practice-based education model. After seeing outcomes, it would be possible to conduct an impact analysis and revise the proposed tool.

The assumed missing link between university education and economic development would be much more effectively constructed thru mechanisms and instruments among government, industry and university. In the new generation university understanding, economic development, innovativeness, increased competitiveness and boosting entrepreneurship spirit are proposed mottos for any kind of higher education institutions. Decision making, implementation and review processes in the Turkish higher education and research areas need to be handled in a holistic approach. Otherwise, the gap between economic development and the universities we witness today will last longing.

In a digitalized society and economy, it is not possible for a university, which is the main medium of the human resources, to remain outside of the trend. Turkey's governmental system in the context of digitalized society and digitalized government has been changing for two years. As in the EU, the reform agenda of universities in Turkey is fairly loaded. In this study, a checklist has been developed for a thematic university founded in an industrial zone in order to make quality assurance, accreditation, and review mechanisms more effective.

Organizational and functional architecture of new generation university model is based on the following features: centrally regulated and supervised with the active participation of stakeholders, and autonomously operating units, offices and committees; higher interaction of units and committees; effective stakeholders engagement; high diversity; based on competitiveness; focusing on change & innovation and a high degree of interdependence; focusing on production and commercialization / branding; adopting the utilitarian philosophy; the outcome-oriented; to equip the alumni with the necessary knowledge and skills to ensure competencies for employability; based on pre-established standards (qualifications framework, professional / occupational standards, core competencies); ensuring quality assurance; high accountability to the community (public) and other stakeholders; focusing on learning by doing and on-the-job training; implementing internationalization as a priority; prioritizing social dimension.

While developing the tool here, various dimensions of practice-based education model have been taken into consideration and internal & external evaluations would be effectively based on the items in this tool. The previous descriptive framework article and this tool are two complementary instruments to create a holistic approach for the accountability of the model.

Keywords: Accreditation, Quality Assurance, Thematic-Technical University.

Presentation Type: Keynote Speech

Transition – from Talents to Academic Life

Dr. Eva Erdelyi, Budapest Business School
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The changing generations are bringing us new challenges in motivating talents to join academic life. It is important, but not enough to find the way for reaching gifted students, and to get their interest for participating in different programs or research teams where they can improve themselves. We can ask ourselves when we need to start mentoring talented students and what is the most effective way of doing it. In this research we analysed how could we find talents at the universities, what are their expectations and studying motivation, is it necessary to gather them in a student's organisation, or can we help them individually to exploit their skills and professional experience. We discuss motivational patterns of students nowadays, their interest in expansion of professional knowledge and programs, and building professional relationships.

It is needed to communicate the offered possibilities to everyone and reach who could be a potential member of the academic society in order to sustain high level of scientific values. The transition of talented high school students to university involves many interactions, among others social, institutional, knowledge content transitions. Students face with new rules, and freedom at the same time, and changes which include the new academic and social environment, as well as the shift required to a way of thinking and studying. We recognise that generations are changing rapidly bringing their different expectations and attitude which we need to understand and deal with. The educations system separates the bachelor and master studies which makes difficult to mentor a student because of the short time of the study programs. It often happens that students are changing the field of studies in between, breaking the continuity. The author is introducing the Hungarian practices of helping talents improve themselves and sharing her personal experiences, as well.

Keywords: Generations, Motivation, Research Group, Talent, Transition.

Presentation Type: Keynote Speech

SESSION 1A

Time: 11:00-12:30

Conformationally Adaptive Neuropeptides Centered Biosensors

Dr. Shlomo Yitzchaik, The Hebrew University of Jerusalem
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In this contribution we'll exemplified the usefulness of label free electrochemical biosensors that utilizes proteins and peptides conformational changes for improved biosensing. Molecular recognition events accompanied with conformational alternation are prone to undergo collective structural change when assembled in monolayers. This phenomenon is demonstrated for ions, small molecules and proteins biosensing. A case study for neurodegenerative disease will be described in depth. Zinc and copper are essential metal ions for numerous biological processes. Their levels are tightly maintained in all body organs. Impairment of the Zn2+ to Cu2+ ratio in serum was found to correlate with many disease states, including immunological and inflammatory disorders. Oxytocin (OT) is a neuropeptide, and its activity is modulated by zinc and copper ion binding. Harnessing the intrinsic properties of OT is one of the attractive ways to develop valuable metal ion sensors. In this talk, we report an OT-based metal ion sensor prepared by immobilizing the neuropeptide onto a glassy carbon electrode. The developed impedimetric biosensor was ultrasensitive to Zn2+ and Cu2+ ions at physiological pH and not to other biologically relevant ions. Selective masking of Zn2+ and Cu2+ was used to allow for the simultaneous determination of zinc to copper ions ratio by the OT sensor. The OT sensor was able to distinguish between healthy control and multiple sclerosis patients diluted sera samples by determining the Zn/Cu ratio similar to the state-of-the-art techniques. The OT sensor presented herein is likely to have numerous applications in biomedical research and pave the way to other types of neuropeptide-derived sensors.

Keywords: Biosensors, Ion Binding Peptides, Electrochemical Impedance Spectroscopy, Neurodegeneration.

Presentation Type: Oral Presentation

Encapsulation of Curcumin on Cellulose Derived Membrants to Increase Their Stability and Bioviability

Ms. Budi Hastuti, Sebelas Maret University
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Ms. Riskita Suryaningtias, Sebelas Maret University

Research has been carried out on the encapsulation process of curcumin into alginate membranes. The alginate membrane is a candidate for a slow release matrix of curcumin as alginate is able to increase a solubility and a bioviability of curcumin as a drug. This study aims to: (1) determine whether the alginate membrane can encapsulate curcumin, (2) study of the effect of alginate concentration on the curcumin encapsulation process, (3) study of the effect of loading time on the encapsulation process of curcumin in alginate membranes, and (4) find out encapsulation efficiency (EE) of curcumin on the alginate membrane. The research was carried out through several stages including the synthesis of alginate membranes, optimization of the synthesis process of alginate membranes, encapsulation of curcumin in alginate membranes, and encapsulation efficiency (EE) of curcumin in alginate membranes. For this study, the curcumin concentration was determined using a UV-Vis spectrophotometer. The results showed that: (1) Curcumin can be encapsulated into alginate membranes at a concentration of 50 ppm; (2) The effect of alginate concentration on the membrane in the encapsulation process of curcumin, that the greater concentration of alginate lead to the more encapsulated curcumin. The effect of encapsulation time shows that the optimum time used by alginate membranes in encapsulating curcumin is different for each membrane. Membrane A (3.3% w/v), B (5% w/v), and C (6.7% w/v) have optimum encapsulation time of 180, 240, and 150 minute respectively. The encapsulation efficiency (EE) of alginate membrane A (3.3% w/v), B (5% w/v) and C (6.7% w/v) in encapsulating curcumin were 52.83%, 59.61%, and 59.87% respectively.

Keywords: Alginate Membrane, Curcumin, Encapsulation, Encapsulation Efficiency.

Presentation Type: Oral Presentation

Patterns of Enteric Bacteria Infection in Some Suburbs of Accra

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Diarrhoea-related diseases are still a problem in most developing countries due to poor coverage of sanitary infrastructure. Almost every year, the city of Accra experiences sporadic outbreaks of cholera epidemics, and outbreaks are not restricted only to low income areas of the city. The study investigated the patterns of enteric bacteria infections based on Out-Patient-Department cases recorded at a hospital in Accra. Prevalence of cases reported at hospital facilities is directly related to the prevalence of the disease in the communities or suburbs. Positive cases are those confirmed by laboratory analysis. Raw vegetable sauce and sachet drinking water served by vendors in the communities were also sampled and assessed for possible bacterial contaminants. Chi-squared test was used to compare prevalence and analysis of variance used for comparing bacteria concentrations. Vegetable and water samples were both analysed for the presence of Total Heterotrophic Bacteria at 37ºC, Total Coliforms and *Escherichia coli*. Prevalence among females (5.0%) were slightly higher than among males (4.6%). However, the age group at the greatest risk (infants below 1year) showed higher prevalence among males (8.1%) than females (7.1%). All the vegetable sauce sampled from the five suburbs were contaminated with Total Coliforms in concentrations above 10^4cfu/100ml and one suburb had *E. coli* contamination of 2.8 x 10^2cfu/100ml. None of the Drinking sachet water sampled was contaminated with *E. coli* but Total Heterotrophic Bacteria count at 37ºC were above the Ghana Standards Authority recommended maximum limit of 5.0 x 10^2cfu/ml. Implications for intervention measures are discussed.

Keywords: Cholera; Diarrhoea, Drinking Water; Faecal Bacteria.

Presentation Type: Oral Presentation

Perspetive of Lipids as Carbon Carriers to Deep Ocean in Global Warming Scenario

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Global warming is and will reflect on marine ecosystem functioning and surely has consequences on the marine carbon cycle and carbon sequestration. In the increasingly warmer seas and oceans, phytoplankton, the primary producer, use carbon and nutrients to form important biomolecules, including lipids. To reveal the possible role of lipids for the carbon sequestration, which may influence the capability of oceans for climate change mitigation, due to their capacity to sequester carbon from the atmosphere, we started with investigation of the phytoplankton lipid production in the diatom *Chaetoceros pseudocurvisetus* cultures under controlled temperatures ranging from 10 to 30 °C. Further, we characterized the distribution of lipids in the

Northeast Atlantic, throughout the water column, down to the depths of 4800 m. We employed high resolution Fourier transform ion cyclotron resonance mass spectrometry (FT-ICR MS), high-performance liquid chromatography/electrospray ionization tandem mass spectrometry (HPLC/ESI - MS/MS) and Iatroscan thin–layer chromatography–flame ionization detection (TLC/FID) to provide qualitative and quantitative lipid characterization and to monitor lipid molecular changes. We found enhanced lipid production at higher temperatures for *C. pseudocurvisetus* cultures. Oceanic data suggest that lipid saturation affects the export of carbon from the atmosphere to the deep ocean. Details on the culturing and oceanic data will be discussed.

Keywords: Global Warming, Lipids, Oceans, Phytoplankton.

Presentation Type: Oral Presentation

Patomorphology and Apoptosis in Experimental Diabetic Nephropathy

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The aim of this study vas evaluated by histopathologycal and apoptical of kidney damage in rats with streptozotocin induced diabetes. Sixteen rats were randomly divided into two groups as control group (n = 8) and rats with twice dose (streptozotocin, 60 mg/kg, ip) of diabetic group. At the end of the last given of streptozotocin 90. days, the rats were sacrificed and the kidneys were removed for histopathological and immunohistochemical examination. For histological analysis tissue sections were stained with hematoxylin–eosin and trichrome, for the immunohistochemical studies sections were stained with caspase-3, caspase-8, caspase-9 and TUNEL assay method. Histopathologically, the kidney in the diabetic group showed glomerular sclerosis, thickening, and membrane hyalinization, tubular atrophy, tubular dilatation, cellular vacuolization, and reabsorption droplets in tubule lumens. In the interstitium inflammation, and fibrosis also were seen. Immunohistochemically, increased caspase-3 immunoreactivity in the tubular epithelial cells and few glomerular and interstitial cells. Caspase-8 and caspase-9 were reactive in tubules. In general, diffuse immunoreactivity in tubules, glomerules and interstitium were observed in TUNEL staining. These results indicate that all component in the kidneys of diabetic rats were damaged.

Keywords: Diabetic Nephropathy, Histopathology, Apoptosis.

Presentation Type: Oral Presentation

The Effects of Tramadol on Cancer Stem Cells and Metabolic Changes in Colon Carcinoma Cells Lines

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Opioids are widely used in the treatment of cancer related pain. They mainly exert their effects on opioid receptors. The most common opioid in the treatment of pain is morphine. Previous studies show that they may have effects on cancer cell behavior. These may include apopitosis, angiogenesis, invasion, inflammation and immune reactions. Tramadol, also an opioid is widely used in the treatment of cancer pain and is not well studied in cancer behavior. We aimed to investigate the effects of tramadol on cancer stem cells and metabolic changes in colon carcinoma cells. We used Colo320 (ATCC, CCL-220), Colo741 (ECACC, 93052621) and HCT116 (ATCC, CCL-247) colon cancer cell lines. CD133 was considered colon cancer stem cell marker and used to sort CD133+ and CD133- cells by magnetic cell sorting. MTT (mitochondria-targeted therapeutics) technique was used to detect tramadol's cytotoxic effect on cells in the study groups. Cells were treated with 1 mg/kg, 1,5 mg/kg and 2 mg/kg tramadol for 24 hours at 370C and 5% CO2. Caspase-3, Ki-67, Bcl-2 and VGEF distributions were performed using indirect immunoperoxidase staining for immunohistochemical analysis. The study showed that tramadol has triggering effect on apoptosis in Colo320 colon cancer stem cells.

Keywords: Opioids, Tramadol, Cell Culture, Colon Cancer.

Presentation Type: Oral Presentation

SESSION 1B

Time: 11:00-12:30

Evaluation of Body Image Perception and Soft Drink Consumption Patterns of Trakya Health Sciences Faculty Students: A Faculty Sample

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This study was designed and conducted to evaluate the effects of beverages on body image by determining body image perception and beverage consumption status of Trakya University Health Sciences students. General questionnaire, food consumption frequency record and body perception scale were applied to the students. A total of 152 participants (46 males (30,30%) and 106 females (69,70%)) participated in the study. The mean body perception scale score was 151.00 ± 18.69 for male students and 143.99 ± 16.99 for female students. The mean body mass index of men and women was 22.16 ± 2.54 kg / m² and 21.17 ± 3.36 kg / m² respectively. When the mean body mass index and body mass index scores were evaluated, a statistically significant difference was found between the two groups ($p < 0.05$). Among the departments, the mean body perception index score was found to be lowest in the Nutrition and Dietetics section (139.87 ± 18.48) and the lowest body mass index was found in the Nutrition and Dietetics section (20.77 ± 2.41 kg / m²) ($p > 0.05$). Mean body mass index difference was found to be significant among students who were directed to non-calorie drinks and not to increase body weight ($p < 0.001$). Among body mass index groups, the highest body perception scale score was found to be low weigth's students (146.67 ± 18.96), and the lowest body perception scale score was found in overweight students (144.00 ± 7.48) ($p > 0.05$).). It was determined that 33.30% of the students consuming kefir were studying in Nutrition and Dietetics department. The average amount of non-alcoholic beverages was 265,59 ± 256,83 ml in male students, 102,79 ± 127,99 ml in female students and 152,06 ± 191,52 ml in all students ($p < 0.001$). It was determined that students consumed black tea the most

after water. Individuals' perception of body image is related to body mass index and affects beverage preferences. Extensive research is needed to achieve more accurate and reliable results in the assessment of beverage consumption situations.

Keywords: Body Perception Scale, Body Mass Index, Drink Consumption.

Presentation Type: Oral Presentation

University Students' Perception of Nursing Home: Sample of Metaphor Analysis

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The elderly population has increased with the prolongation of the average life expectancy. At the same time, with the change in family structure and increase in working women led to a need of institutional care for elderly population rather than traditional family care. The aim of this study is to reveal how university students conceptualize their perceptions of the concept of nursing home through metaphors. In order to achieve this goal, a phenomenological design was used. The study group of the research consisted of 150 college students, 78 female and 72 male, who were studying at a foundation university in the spring term of 2018-2019 and volunteering to participate in the study. The students who participated in the study were selected with easily accessible sampling method. In order to define the conception of nursing homes at students mind they were asked to complete the blank parts of the semi-structured form with the expression " Nursing home is like……., because……..." by focusing on one metaphor. The data obtained at the end of the study were analyzed in accordance with the content analysis. A total of 56 valid metaphors for nursing homes were produced by the participants. These metaphors were grouped under two categories as "positive concepts" and "negative concepts.. In the study, it was observed that most of the metaphors produced by the participants fit into negative concepts. And the most frequently metaphors used in this category are "prison, mezarlık, orphanage".

Keywords: Nursing Home, Metaphor Analysis, Perception.

Presentation Type: Oral Presentation

The Effect of Caffein Consumption on Health Sciences Faculty Students' Sleep Quality

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Introduction: Caffeine consumption in university students has important effects on sleep and sleep quality.

Objective: This study was conducted to investigate how university students' caffeinated food consumption affected sleep quality.

Metod: The research was carried out on 72 students studying at the Faculty of Health Sciences of Trakya University in Edirne. Research data were collected using the caffeine consumption frequency and the Pittsburgh Sleep Quality Index (PUKI). The analysis of the data was performed using the significance test, variance analysis, Student T, Mann Whitney U, and Kruskal-Wallis tests for the difference between the two means.

Results: Good sleep quality and poor sleep quality were found to be 15.3% and 84.7%, respectively. When total caffeine consumption was examined, caffeine was found to be 66.3% at 300 mg or less per day, and 33.3% at over 300 mg of caffeine. There was no difference between age, gender, department and class, place of stay and smoking status, average PUKI scores, and total caffeine consumption.

Conclusion: In this study, it was determined that university students' caffeine-containing food consumption did not affect sleep quality.

Keywords: Caffeine, Pittsburgh Sleep Quality Index, Sleep.

Presentation Type: Oral Presentation

Social Work Students' Perception of Social Worker through Metaphor Analysis

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The meanings and values that people attribute to their professions affect the quality of the services they produce. Perceptions of people's self and their professions may contain positive or negative connotations, and these perceptions can primarily affect emotions and behaviors. Social workers who work to increase the psychological, social, economic and spiritual well-being of the groups that have been marginalized for various reasons are one of the occupational groups that experience burn-out among health professionals. In all these challenging conditions, the value that social workers attribute to their profession is the determinant of the quality of the relationship with clients as well as the service they provide. The aim of this study is to examine the perceptions of students studying in social work departments towards social workers. In this study, metaphor analysis of qualitative research methods was used. The population of the study consists of 124 (104 females/ 20 males) students studying at Istanbul Sabahattin Zaim University Faculty of Health Sciences/Social Work Department. The data was analyzed through content analysis technique. The process of the analysis included metaphor classification, development of the categories and validation. Results show that participants total of 104 metaphors are produced which could be categorized into 10 different categories.

Keywords: Social Work, Social Worker, Metaphor analysis.

Presentation Type: Oral Presentation

Determining the Effects of Nutrition Education and Weight Management on Erectile Dysfunction (ED) Cases

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Objective: The aim of this study is to investigate the importance and importance of nutrition education and body weight management in the etiology and treatment of erectile dysfunction (ED).

Method: The patients who were admitted to Hisar Hospital Urology Polyclinic and diagnosed as ED were referred to the researcher dietician after physician examination and routine biochemical analysis. A total of 54 volunteer patients between the ages of 24-66 who agreed to participate in the study voluntarily were given diet programs according to their ideal weight and were given nutrition training for 2 months. During the study, patients were interviewed 3 times, and anthropometric measurements and blood pressure measurements were made at each interview. Biochemical analyzes, International Erectile Function Index (IEFI) and food consumption frequency questionnaire were repeated at the beginning and end of the study.

Results: The mean age of the patients was 41.87 years and most of them were graduated from high school (38.9%) and university (57.4%). Hyperlipidemia was found in 19.4%, diabetes mellitus in 17.5% and hypertension in 12.6% of the patients. Energy, protein, fat, carbohydrate, saturated fatty acids and sodium intake of patients under 40 years of age and energy, protein, fat, and carbohydrate intake of those over 40 years of age were found to be decreased ($p < 0.05$). In both groups, body weight averages decreased during the study period ($p < 0.05$). Body weight, BMI, upper middle arm circumference, triceps skinfold thickness, waist circumference measurement, hip circumference measurements and waist / hip ratios were decreased ($p < 0,05$) was decreased both in individuals under 40 years of age and over 40 years of age ($p < 0.05$). Total testosterone and free testosterone levels were increased in both groups at the end of the study, total testosterone over 40 years of age and free testosterone differences under 40 years were found to be significant ($p < 0.05$). HomaIR, HbA1c, Total cholesterol, LDL levels decreased ($p < 0.05$) and HDL levels

were increased in both groups (p <0, 05). Among the first and last IEFI evaluations, the differences between the ages of 30-39 years (p = 0.020) and 40-49 years (p = 0.014) were found to be statistically significant. Although there was a positive relationship between anthropometric measurements and IEFI score, it was not statistically significant (p> 0.05).

Conclusion: It was found that correct and healthy nutrition behaviors improved not only blood parameters, anthropometric measurements but also IEFF scores. Study data showed that a longer period of time was required for nutritional education.

Keywords: Erectile Disfunction, İİEF, Obesity, Nutritional Education, Body Weight Loss.

Presentation Type: Oral Presentation

SESSION 1C

Time: 11:00-12:30

Effect of Different Indole-3-Butyric Acid and Naphthalene Acetic Acid on *In Vitro* Rooting of *Limnophila Aromatica* (Lamk.) Merr.[1]

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Plants generally consist of root, stem and leaf parts. With the formation of these structures, a complete plant is obtained. The basic stages of in vitro production techniques are *in vitro* shoot regeneration and *in vitro* rooting. In this study, the effects of different concentrations of Indole-3-butyric acid (IBA) and naphthalene acetic acid (NAA) (0.25, 0.50, 0.75 ve 1.00 mg/L) on *in vitro* rooting of *Limnophila aromatica* (Lamk.) Merr produced by tissue culture were investigated. The earliest root formations were observed in Murashige and Skoog (MS) medium containing 0.25 mg/L IBA on day 14, followed by root formation in MS medium containing 0.50 mg/L IBA on day 16. The earliest root formation in NAA-containing MS medium was recorded at 20 days and in MS medium containing 0.25 mg/L NAA. In rooting medium, the number of roots per shoot ranged from 4,44 to 12.72 in the MS medium containing IBA, and between 2.27 and 7.61 in MS containing NAA. The highest number of root formation (12.72) in all rooting media was obtained in MS medium containing 0.25 mg/L IBA. Root length ranged from 1.87 cm to 3.41 cm in the MS medium containing IBA, and in the MS medium with NAA ranged from 1.31 cm to 2.86 cm. In all rooting media, the longest roots (3.41 cm) were obtained in MS medium containing 0.25 mg/L IBA. In general, the root lengths in the IBA-containing MS medium were found to be longer than the MS medium containing NAA. It was determined that the increase of IBA and NAA ratio in rooting mediums negatively affected root length.

Keywords: *In Vitro Rooting*, IBA, NAA, *L. Aromatica*, Root Formation.

Presentation Type: Oral Presentation

[1] This work was supported by the Scientific and Technological Research Council of Turkey (TUBITAK) (Project no: 2130190).

Cytotoxic Activity and Induction of Apoptosis on Liver Hepatocellular Carcinoma Cells by Olivetoric and Physodic Acid: An *In Vitro* Study [2]

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Pseudevernia furfuracea (L.) Zopf is a lichen species that has been used for therapeutic purposes in scientific studies for years. In this study, cytotoxic effects of different concentrations (12.5-400 mg/L) of olivetoric acid (OA) and physodic acid (PA) isolated from *P. furfuracea* on liver hepatocellular carcinoma cells (HepG2) were investigated. In addition, whether effects of OA and PA on HepG2 are related to apoptosis and necrosis were determined through flow cytometry technique. According to the results, the most highly inhibiting solutions for cell proliferation are those with the highest concentration (400 mg/L) among the lichen secondary metabolite applications tested. In addition, it was determined that the metabolite that decreased the viability rate in HepG2 cells was OA. In HepG2 cells exposed to the maximum concentration of OA, the viability percentage decreased to 37.86%, while this rate was 46.34% in the PA trial. When the IC_{50} values were compared, the cytotoxic activity of PA (166.15 mg/L) was lower than OA (129.42 mg/L). In flow cytometry analysis, HepG2 cells treated with 100, 200 and 400 mg/L concentrations of OA were in the early apoptotic process as 19.9%, 24.2% and 39.1%, respectively. At the same time, it was determined that the related applications directed HepG2 cells to the necrotic process at 6.8%, 5.9% and 4.3%, respectively. In the PA metabolite-treated cells, the necrotic process was found to be predominant. According to flow cytometry analysis, HepG2 cells treated with PA concentrations of 100, 200 and 400

[2] This work was supported by the Scientific and Technological Research Council of Turkey (TUBITAK) [grant number 117Z632].

mg/L were treated in 15.4%, 16.1% and 23.1% necrotic processes, respectively. Apoptotic cell ratio was found to be around 3-4%. According to these results, it was determined that the cytotoxic effect of PA on HepG2 cells was mainly caused by necrosis.

Keywords: Lichen, Olivetoric Acid, Physodic Acid, Cytotoxicity, Apoptosis, HepG2.

Presentation Type: Oral Presentation

Determination of the Effect of Different Agar Applications on *In Vitro* Shoot Regeneration of *Rotala rotundifolia* (Buch-Ham. ex Roxb) Koehne, A Medicinal Aquatic Plant[3]

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Rotala rotundifolia (Buch-Ham. ex Roxb) Koehne is an aquatic and medicinal plant belonging to the Lythraceae family. It is known to be used in the treatment of certain diseases due to its medicinal property. In this study, the effects of different levels of agar-gelled media on *in vitro* propagation of *R. rotundifolia* were investigated. The nodal explants of *R. rotundifolia* were cultured in Murashige and Skoog (MS) nutrient medium containing 5.0, 6.0, 7.0 and 8.0 g/L agar and containing 0.20 mg/L Benzil Amino Purine (BAP). The pH of the nutrient medium was adjusted to 5.7 ± 0.1 using 1N NaOH and 1N HCl. Trials were carried out on petri dishes with 6 explants and 3 replicates. Shoot regeneration frequencies ranged from 66.66 to 100.00%. The highest shoot regeneration percentage (100%) were recorded in the MS nutrient medium using 5.0, 6.0 and 7.0 g/L of agar. The least shoot regeneration frequency was obtained in 8.0 mg/L agar application. The maximum number of shoots per explant (22.79 shoots/explant) was obtained in the culture medium with 6.0 g/L agar. The highest shoot length was determined as 1.46 cm in MS medium with 5.0 g/L agar. Different agar doses were effective on the number and length of shoots of plants. As a result, it was found that agar concentrations had a significant effect on *in vitro* propagation of *R. rotundifolia*.

Keywords: Agar, *R. rotundifolia*, Gelling, Tissue Culture.

Presentation Type: Oral Presentation

[3] The financial support from the Commission of Scientific Research Projects (BAP) of Karamanoğlu Mehmetbey University (AGED Project No. 11-AG-19) is gratefully acknowledged.

Investigation of Heavy Metal Content of Lake Water and Degirmen Creek in South of Salda Lake (Burdur)

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Located in the Lakes region Salda lake is one of the deepest lake in Turkey. Especially in terms of the tourism potential of the southern coast has a great importance for our country in recent years. But, wastes from nearby mines and use of irrigation purposes of water resources (Değirmen creek) feeding the lake, negatively affect the water quality of the lake. Therefore, July 2017/2018 date in order to determine the inorganic pollution parameters from Salda Lake and Değirmen creek, systematically a total of 37 water samples (15 lake waters, 22 creek waters) were taken. The heavy metal determinations of these waters were determined by ICP-MS (Hg, Cd, Pb, As, Cu, Cr, Co, Ni, Zn, Fe, Mn, B, Se, Ba, Al). Analysis results obtained were evaluated in accordance with standard values of the Intra Continent Water Resources Quality Criteria determined in the Regulation on Control of Water Pollution. Lake water samples according to As, Cu, Cr, Co, Ni, Zn, Mn, B, Se, Ba and Al concentrations I. Water quality class, according to Pb and Fe concentrations, I. and II. Included in the water quality class. The creek water samples feeding the lake according to As, Cu, Cr, Co, Zn, B, Se ve Ba concentrations I. Water quality class, Ni, Fe and Mn concentrations I. II. And III. Water quality class, Al concentration I. II. III. And IV. Water quality class is included. Hg and Cd concentrations could not be interpreted because they were below the detection limit in all samples. Salda Lake and at the samples taken from the river feeding it, high amount concentrations of heavy metals such as Ni, Fe, Mn and Al, it may be due to fertilizer and mining activities used in agriculture. For this reason, periodic monitoring of the Salda lake and the water supply that feeds it is very important in terms of how the activities such as agricultural irrigation and mining are affected the water quality over time.

Keywords: Salda Lake, Lake Water, Creek Water, Heavy Metal Pollution.

Presentation Type: Oral Presentation

Comparative Evaluation of *In Vitro* Anti-Alzheimer's Potentials of Several Lichenic Substances

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Alzheimer's disease is considered as the most common progressive neurodegenerative disorder and its prevalence is increasing from day to day due to aging of human populations. To make matters worse up to date exact modifying treatment options has not been explored yet. Interestingly, in recent times lichens are being considered as natural sources of novel pharmaceuticals since they contained a great variety of pharmacologically active substances. In this investigation, the effects of isolated three lichenic substances: diffractaic acid (DA), usnic acid (UA) and friedelin (FDL) against $A\beta_{1-42}$-induced neurotoxicity were comparatively evaluated on differentiated human SH-SY5Y neuroblastoma cells. The different concentrations of lichenic substances (25, 50 and 100 μM) and $A\beta_{1-42}$ fragments (30 μM) were applied into neuron-like cell cultures for 24 h and 48 h. Cell viability rates were assesed by using LDH leakage assay. Our results indicated that $A\beta_{1-42}$ fragments caused significant ($p < 0.05$) cell death rates substantially with increasing LDH release. Likewise, the highest concentration of DA (100 μM) was found to be neurotoxic. On the contrary, all tested concentrations of UA and FDL did not lead to cytotoxicity. Moreover, UA and FDL attenuated the elevated levels of LDH by $A\beta_{1-42}$ exposure in a concentration and time depended manners. FDL was the most active anti-Alzheimer agent. In a conclusion our results first revealed that lichenic substances especially friedelin could be a new source of natural anti-Alzheimer's agents and needs to further in vivo evaluation as a valuable candidate molecule.

Keywords: Lichen, Diffractaic Acid, Usnic Acid, Friedelin, Anti-Alzheimer's Activity, SHSY-5Y Model.

Presentation Type: Oral Presentation

SESSION 1D

Time: 11:00-12:30

Multiple-bit-per-cell Nanoscale Semiconductor Memory Device

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Chalcogenide elements are promising materials due to their extraordinary properties, such as having two different metastable states (polycrystalline and amorphous) to benefit in many research area such as data storage, sensor, detector, and transistor. Therefore, a semiconductor device using chalcogenide elements as an essential constituent is considered as a potentially revelation technology for future ultra-high density data storage application. In addition to the other superior properties, high contrast between 0 and 1 logic states brought out the possible application of the idea of multiple logic levels in a single bit in an effort to boost data storage density. I report on my investigation of the role of the current injection and material selection in stabilizing middle resistance states within a nanoscale semiconductor cell to obtain more middle resistance states for fabrication of a multiple-bit-per-cell through 3D finite element modelling. First, to visualize the complex nature of the switching dynamics, 3D finite element simulations were carried out in cell with two active layers Ge2Sb2Te5/Ge2Sb2Te5 (GST/GST) alloys incorporating phase change kinetics, electrical, thermal and percolation effects, all as a function of temperature, using an iterative approach with coupled differential equations as well as Seebeck coefficient to account for thermoelectric effect. The nature of switching dynamics appears highly sensitive to the exact programming current distribution and defect density. My model suggests that the physical origin of the formation of stable middle states unexpectedly in circular top contact devices is mainly due to anisotropic heating during the application of a programming current pulse. My model successfully predicts the required programing conditions and material selection for such mixed-phase levels, which can be used to optimize memory cells for future ultra-high-density data storage applications.

Keywords: Semiconductor, Phase Change, Switching Dynamics, Intermediate Levels, Multiple-bit-per-cell, Finite Element Modelling.

Presentation Type: Oral Presentation

The Importance of Designing New Generation Learning Environments in Architecture Education

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21st century schools are defined as the new generation schools. In recent years studies on new generation schools in educational science have been developed together with the contributions of architectural discipline. For the new generation schools, the learning environment can not be limited to classes. According to learning-focused learning approaches, any environment that influences the learning process for children is the learning environment. In this context, the concept of "learning environment" needs to be perceived beyond a new understanding. The learning environment for the next generation of schools can not be limited to those existing in the class. It is important that the design criteria of the new generation learning environments and educational structures, which are designed as learning-oriented spaces, are correctly explained to the architecture and interior architecture students. These students will design future learning environments. In this context, 50 architecture and 50 interior architecture students were introduced to the design criteria and examples of new generation learning environments. After the lecture, all students were asked to design a learning environment by the size given. The designs resulting from the study were evaluated by two different academicians in terms of the principles determined.

Keywords: Next Generation School, Learning Environment, Interior/Architecture Education.

Presentation Type: Oral Presentation

Introduction of Post Algebra to Ternary and Real Semigroups

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Our basic idea in this paper is to build an circular connection between ternary semigroups, real semigroups and Post Algebras. We introduce the notion of ternary semigroups like a structure of $(S,,1,0,1)$, which represent a class of real semigroups with additional individual constants: $-1,0,1$, underlining the notation of real semigroups. An important part of our work is constructing an ternary semigroup by using two 2-structures and an defined isomorphism between them. The axioms for real semigroups involve another ternary relation called transversal representation denoted by D^t, definable in terms of D (basic ternary relation of real semigroup) without involving quantifiers, so: $a \in D^t \Leftrightarrow a \in D(b,c) \wedge -b \in D(-a,c)$. The subject matter of the paper is the connections of the first significant class of real semigroups: Post Algebra, an generated structure of Lukasiewizc Algebra introducing an distinguished element $\underline{c}$, verifying $\neg\underline{c} = \underline{c}$, called center. If P is Post Algebra, then the structure $(P,4,\perp,\underline{c},>)$ is ternary semigroup, 4 symmetric difference, relation defined in P . On the same conditions the structure $(B(P),4,D_p,\perp,>)$ is Boolean Algebra, D_p new ternary relation defined with $x \in D(y,z) \Leftrightarrow y \wedge z \wedge \underline{c} \leq x \leq y \vee z \vee \underline{c}$, $\forall x,y,z \in P$, and the main part, proving that the other structure $(P,4,\perp,\underline{c},D_p,>)$ is an real semigroup, using the previous results of D_p^t and so called Kleene inequality.

Keywords: Ternary Semigroup, Real Semigroup, Lukasiewicz Algebra, Post Algebra, Boolean Algebra.

Presentation Type: Oral Presentation

Rewriting System and Some Results on Crossed Product of Groups

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Presentations arise in various areas of Mathematics such as Knot Theory, Topology, and Geometry. Another motivation for studying presentations is the advent of softwares for symbolic computations like *GAP* (Group, Algorithm and Programming). Providing algorithms to compute presentations of given groups is a great help for the developers of these softwares. So, in this talk, firstly, we give some basic information about (string) rewriting system and word problem, which is one of the three decision problems and introduced by Max Dehn in 1911's. Then by considering presentations of crossed, two-sided crossed and iterated crossed product of groups, we present their corresponding complete rewriting systems. Complete rewriting system is important in respect to find normal forms of elements of given algebraic structure and thus have a solvable word problem.

Keywords: Presentation, Rewriting System, Word Problem, Crossed Product.

Presentation Type: Oral Presentation

Magnetization and Thermal Fluctuation of Artificial Spin Ice Network

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Magnonic crystal is a new crystal arrangement to regulate magnetic properties in a magnetic network. Advanced nanotechnology design possibility enables the generation of connected ferromagnetic nanowire networks functioning as magnetic metamaterials. Artificial spin ice (ASI) is consisting of lithographically fabricated 2D ferromagnetic nanoscale islands to imitator the magnetic behavior of crystalline spin ice. The purpose of fabrication of ASI is to study of degeneracy control of magnetic ground states, the direct observation of magnetic monopoles, and the dynamics of magnetic charges. ASI structures are not only model systems in which to study geometrical frustration, but also essential in the development of a wide range of potential applications such as memory, signal propagation, and logic devices. Therefore, it is necessary to conduct a systematic study on the static and dynamic behaviors of the ASI structures. For this reason, I report on my investigation of the role of the current injection in a nanoscale cell (Permalloy ASI network) to understand heat profile, critical programming current not to disturb the magnetic properties of network and as well as magnetization change within temperature. Because, temperature is a fundamental parameter to affect the magnetic properties and to lose their magnetic properties. First, to visualize the complex nature of the ASI network, 3D finite element simulations were carried out in cell with monolayer Permalloy incorporating electrical and thermal effects, all as a function of temperature, using an iterative approach with coupled differential equations as well as Seeback coefficient to account for thermoelectric effect. In addition to that, magnetization change according to temperature was added into the simulation to determine magnetization fluctuation with temperature when a nanoscale voltage pulse was applied. My model suggests that the heating profile is mainly due to isotropic/anisotropic heating depending on the geometry and contacts positions during the application of a programming current pulse. My model successfully predicts the temperature and magnetization distribution for different type of networks, which can be used for different purposes like data storage or logic device application.

Keywords: Magnonic Crystal, Artificial Spin Ice, Finite Element Modeling, Heating Profile, Geometry Dependency.

Presentation Type: Oral Presentation

Negative Impact of Malfunctions in Applying Inefficient Supply Chain Management (SCM) on Profit

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Implementing Supply Chain Management (SCM) effectively enables a company to make profit. Since SCM can create value it is capable to build a competitive infrastructure for global competition. From the customer's view, SCM is the enabler of the company to produce and provide value added products which are desired in the market. In our investigation that took 4 months during which we spent 20 full time days. We have analysed 5 years of a manufacturing company taking the "real data". We founded with clear evidences that the malfunctions SCM had been causing remarkable decrease in company's profit due to "waste", "lost sales", "higher costs in make and deliver" which were all originated from the poor management of the management team. The main conclusion was that if the management team do apply SCM properly then the company's profit will rise significantly which would also satisfy the share holders. Our recommendation was that the top management should make a clear decision for a step change within the company's SC including TP suppliers, and spend the required efforts for implementing a project decisively in order to eliminate the existing failures which we identified clearly and defined seperate procedures in detailed steps for each and every failure.

Keywords: Supply Chain Management, Company, Profit, Malfunction, Top Management.

Presentation Type: Oral Presentation

SESSION 2A

Time: 14:00-15:30

Analysis of Relationship between Perception of Organizational Justice and Glass Ceiling Syndrome in Female Healthcare Workers

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Objective: The aim of this study was to evaluate the effect of glass ceiling syndrome on organizational justice perception in women health care workers, and to examine the factors affecting organizational justice perception and glass ceiling syndrome.

Materials and methods: The population of this cross-sectional study consisted of 105 female healthcare professionals working in Aksaray Training and Research Hospital between November-December 2018. In the study, personal information form including demographic-sociocultural characteristics of women health workers and Organizational Justice Perception Scale and Glass Ceiling Syndrome Scale were used as data collection tools. Student t test and analysis of variance were used for statistical analysis, and Spearman correlation coefficient was calculated in the evaluation of the relationship between variables.

Results: It was found that the highest mean score of the Organizational Justice Perception Scale was 22.64 ± 7.36 with fair interaction, and the highest mean score was 4.09 ± 0.66 in the stereotypes. The Single Attitude subscale scores of the Glass

Ceiling Syndrome Scale of single healthcare workers and the Personal Choice Perception subscale scores of female healthcare workers working continuously were found to be significantly higher ($p < 0.05$). Organizational Culture and Policies subscale scores of women health workers and Organizational Justice Perception subscale scores, between Unsubscribe to Informal Networks and Fair Interaction subscale scores, between Vocational Discrimination and Fair Transaction subscale scores, Glass Ceiling Syndrome Scale total scores and Fair Interaction There was a negative and low level correlation between the subscale scores ($p < 0.05$).

Conclusion: It has been found that glass ceiling syndrome negatively affects the perception of organizational justice among female healthcare workers.

Keywords: Female Health Worker, Perception of Organizational Justice, Glass Ceiling Syndrome.

Presentation Type: Oral Presentation

Analysis of Relationship between Burnout Level and Emotional Labor Behaviour in Nurses

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Objective: The aim of this study was to determine the emotional labor and burnout levels of nurses and to evaluate the effect of emotional labor behavior on burnout level and to investigate the factors affecting emotional labor and burnout.

Materials and methods: This cross-sectional study was conducted on 199 nurses working in clinical, polyclinic, intensive care, operating room and emergency units in Aksaray Training and Research Hospital between January-February 2019. In the study, personal information form including demographic-sociocultural characteristics of nurses and Emotional Labor Scale and Maslach Burnout Scale were used as data collection tools. In the statistical analysis, independent samples t-test and one-way analysis of variance were used for quantitative variables. Pearson correlation coefficient was calculated in the evaluation of the relationship between the variables. Significance level was accepted as $p < 0.05$.

Results: It was found that nurses received the highest score from the emotional effort expenditure dimension and the highest score from the Maslach Burnout Scale from the sense of personal achievement dimension. There was a positive and low-level correlation between emotional exhaustion sub-dimension scores and emotional effort expenditure sub-dimension scores of nurses, between emotional exhaustion and suppression of real emotions, Maslach burnout total score, and emotional effort expenditure and actual emotion suppression subscale scores. It was. There was a

negative and low-level correlation between the scores of personal accomplishment subscale scores and surface behavior subscale scores ($p < 0.05$).

Conclusion: In our study, Nurses, Maslach Burnout Scale scores lower than the personal achievement dimension, emotional exhaustion and depersonalization scores high scores indicate that burnout is high.

Keywords: Nurse, Emotional Labor, Burnout.

Presentation Type: Oral Presentation

Determination of Career Stress Levels of University Students

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Objective: The aim of the study is to determine the career stress levels and the influencing factors of the Health Services Vocational School (HSVS) students.

Material-Method: Erciyes University and Erzincan Binali Yıldırım University "First Aid and Emergency Program" and "Medical Documentation and Secretarial Program" students participated in this cross-sectional study (n = 253). The data were collected through 'Personal Information Form' and 'Career Stress Scale'. Anova and t-test were applied in statistical analysis.

Findings: The career stress scale average ($\bar{x}$ = 2.30) was determined. Participants were found to have a higher average of "job seeking pressure" dimension average ($\bar{x}$ = 2.89) than "career ambiguity and information lack" ($\bar{x}$ = 2.30) and "external conflict" ($\bar{x}$ = 1.94) dimensions.

Conclusion: As a result, the students' career stress levels according to demographic variables; In women, students who are 18 and under age group, first grade, non-internship, section preference order 6 and above, fewer friends and Erzincan Binali Yildirim University students were higher determined.

Keywords: Career Stress, University Students, Medical Documentation and Secretary, First and Immediate Help.

Presentation Type: Oral Presentation

Body Composition Reference Percentiles of Healthy Turkish Children and Adolescents

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Background: In addition to body mass index (BMI), fat mass (FM), fat-free mass (FFM), and their index may be used to predict metabolic health risks. The aim of this study is to define age- and gender-specific FM, fat mass index (FMI), FFM and fat-free mass index (FFMI) percentiles for heatly Turkish children and adolescents.

Methods: A total of 4028 (2252 girls, 1776 boys) participant aged 6–17 years were recruited. The body composition was evaluated by bioelectrical impedans. FM, FMI, FFM and FFMI percentiles were produced.

Results: FM, FFM, FMI and FFMI percentiles were calculated. FMI and FM were female predominance through 6 to 17 years. The differences in 3rd-97th percentiles of FFMI were 4.06–7.20kg/m2 respectively for males, where this difference was 4.06-6.95kg/m2 for females. We checked the age-specific contribution of FMI, FFMI to BMI and fat% with Hattori chart and found that children with similar BMI may lie in different fat%.

Conclusions: Since FM and FFM are important for the evaluation of body composition, in addition to BMI and body fat%, FM and FFM percentiles are required as local reference. Therefore, this study provides normative data for body FM, FMI, FFM and FFI percentiles.

Keywords: Fat Mass, Fat Mass Index, Fat-Free Mass, Fat-Free Mass Index, Children, Adolescents.

Presentation Type: Oral Presentation

The Effect of Ramadan Fasting on Metabolic Parameters of Type 2 Diabetic Patients under Nutrition Education and Modified Diet Therapy

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To evaluate the effect of fasting on metabolic parameters patients with Type 2 Diabetes Mellitus. Between the months of July-August (pre-Ramadan) Sisli Etfal Education and Research Hospital Endocrine-Diabetes-Obesity Clinic which is monitored and is warned about fasting by a physician who insist on fasting 50 Type 2 diabetic patients (%26 males, %74 females) be consulted Diet and Nutrition Clinic, were studied prospectively. Type 1 DM, intensive insulin therapy in type 2 DM patients, pregnant patients with diabetes, patients with renal dysfunction were excluded. Before of the study gender, age, education level, height, weight, BMI (body-weight index), smoking, occupation, physical activity (> 150 m / w), duration of diabetes, a history of drug use, diabetic complications, comorbid diseases, history of acute metabolic coma were recorded, laboratory findings were reviewed. Medical nutrition therapy in these patients were adjusted for fasting. The mean age of patients was 51,10±8,95. The mean BMI of patients was 33,49±5,64 kg/m². Fasting blood glucose levels of patients before Ramadan was 124,36±42,57 mg/dL, after Ramadan it was 115,6±27,95 mg/dL. There was no significant change in fasting blood glucose levels ($p > 0.05$). HbA1c levels of patients before Ramadan was 7,30±1,38, after Ramadan it was 6,80±0,72. In our study a significant decrease was detected in HbA1c levels ($p < 0.05$). Total cholesterol levels of patients before Ramadan was 194,86±36,972 mg/dL, after Ramadan it was 191,08±39,611 mg/dL. There was no significant decrease in total cholesterol levels ($p > 0.05$). Plasma triglyceride levels of patients before Ramadan was 184,16±142,450 mg/dL, after Ramadan it was 159,86±104,276 mg/dL. In our study a significant decrease was found in plasma

triglyceride levels ($p < 0.05$). HDL levels of patients before Ramadan was 44,98±10,387 mg/dL, after Ramadan it was 46,20±,11,254 mg/dL. There was no significant increase in HDL levels ($p > 0.05$). LDL levels of patients before Ramadan was 114,07±28,5 mg/dL, after Ramadan it was 116,84±33,07 mg/dL. There was no significant change in LDL-cholesterol levels ($p > 0.05$).

Keywords: Tip 2 DM, Ramadan, Fasting, Hba1c, Glucose.

Presentation Type: Oral Presentation

SESSION 2B

Time: 14:00-15:30

Effect of Bread Wheat Varieties on Grain Sterol (Campesterol, Stigmasterol and Betasitosterol) Concentration of Zinc Applications

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Plant sterols are a group of steroid alcohols with various bioactive characteristics for human health. Phytosterols inhibit cholesterol absorption in intestines and thus reduce blood cholesterol levels. Zinc is plant micronutrient which is involved in many physiological functions its inadequate supply will reduce crop yields. In this study, the effect of zinc (Zn) applications on the concentration of Campesterol, Stigmasterol and Betasitosterol of two different bread wheat cultivars (Yunus and Osmaniyem) in the greenhouse conditions was investigated. Zinc applications ($ZnSO_4.7H_2O$) were carried out in 1.0 (Control) and 5.0 (Zn 5) mg Zn kg^{-1} doses as the soil fertilizing. Zinc application showed statistically significant increases in grain Zn concentrations of both Yunus and Osmaniyem varieties. Zinc application has resulted in an increase of 49% in grain Zn concentration of Yunus varieties and 137% in Osmaniyem varieties. Parallel to the increase in the Zn concentration by Zn application, an increase of 42% in the concentration of Campesterol, 57% in the concentration of stigmasterol and 21% in the concentration of betasitosterol was observed in the grain of Yunus varieties. Similarly, there was a rise of 11% in the concentration of Campesterol, 18% in the concentration of stigmasterol and 11% in the concentration of betacitosterol of the Osmaniyem varieties. It is observed that the possibility of Zn participating in stain of Campesterol, Stigmasterol and Betasitosterol seems to be high.

Keywords: Zinc, Campesterol, Stigmasterol, Betasitosterol, Bread Wheat.

Presentation Type: Oral Presentation

Effect of Irrigation on Strawberry Plants in Greenhouse Conditions

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In order to meet the needs of the increasing human population in the world, the efforts to obtain more efficiency from the one-unit area have been among the most important issues in recent years. On the other hand, although the vast majority of the earth is covered with water, it is known that there is very little usable water of good quality. Due to the lack of good quality water, the researches on irrigation have come to the forefront. In addition, agricultural production is the sector that uses water the most. Agricultural production, in general, can be done in greenhouses, indoor, outdoor areas and fruit orchards. Irrigation is one of the main factors increasing productivity in agricultural production. Irrigation is a very important issue in fruit and vegetable cultivation among the other factors increasing the yield value. Strawberry plant is a plant with high production and consumption potential among the other fruit species. Therefore, the reactions of the strawberry plant under deficit irrigation conditions were investigated in this study.

Keywords: Irrigation, Deficit Irrigation, Water Scarcity, Yield.

Presentation Type: Oral Presentation

Comparison of Hybrid and Standard Tobacco Varieties in Terms of Yield, Quality and Nutritional Level

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This study was carried out to compare the yield, yield parameters, mineral element concentrations, nicotine and sugar content between hybrid tobacco (Xanthi/2AxKaterini, NailxKaterini, KaterinixErbaa, CanikxErbaa) and standard tobacco (Xanthi-2A, Nail, Katerini, Canik, Erbaa) varieties. Tobacco plants were grown under controlled conditions, required macro (N, P and K) and micro (Fe and Zn) nutrients were applied. The experiment was laid out in split plot design with four replications. All matured tobacco leaves were harvested in three priming's and cured at sun. The leaf yield, leaf width, leaf length, number of leaves, plant height, N, P, K, Zn concentration, nicotine and sugar content of leaf samples were determined. According to the results obtained, leaf width, leaf length, number of leaves and leaf yield were higher in hybrid tobacco than standard tobacco varieties. While the average leaf yield of standard tobacco were 5.17 g plant^{-1}, hybrid tobacco yield were 5.78 g plant^{-1}. In terms of N, P and K concentrations of leaves, standard tobacco had higher values than hybrid tobacco. The reason for this difference can be explained by the decrease in mineral element concentrations that fall on the unit area due to the increase in width and height in hybrid tobacco leaves. While the average nicotine concentration of standard tobacco was 0.49%, hybrid tobacco appeared to have lower nicotine (0.39 %). Unlike nicotine, the average sugar concentration of standard tobacco (7.10%) was lower than that of hybrids (8.37%). As a result, it was found that hybrid tobacco was better than standard varieties in terms of quality parameters and yield.

Keywords: Tobacco, Hybrid, Quality, Nicotine, Yield.

Presentation Type: Oral Presentation

Determination of *LL06* and *LL601* Events by Real-Time PCR in Rice Samples

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In this study, raw and processed rice samples were analyzed for genetic modification using a DNA based detection method, the polymerase chain reaction. Total 39 rice kernels, baby food and food including rice flour, starch were collected from different markets located in Turkey (23), USA (10), China (4) and Germany (2). The samples were examined for the presence of genetic element located in the majority of transgenic crops CaMV 35S promoter. As well as, bar gene for the presence of genetic element located in LLRICE06, LLRICE62, LLRICE601 and BT-Shanyou 63 events, have not been possessed adequate data in Turkey, were examined with real-time PCR. Quantification of LLRICE06 and LLRICE601 events were performed real-time PCR, too. The results indicated that foreign genetic elements were found in analyzed two processed materials. 35S promoter were determined in two baby food by conventional PCR and in 14 samples by real-time PCR. According to relative quantification results, the quantity in any sample was greater than 0.9 %, the limit at which labeling is required by GM Food and Feed Regulation (EC) No. 1829/2003 and Biosafety Law in Turkey.

Keywords: LL601 Event, LL62 Event, Rice, Real-time PCR.

Presentation Type: Oral Presentation

SESSION 2C

Time: 14:00-15:30

Validity and Reliability Study of Attachment Styles Scale in Relationships between Coach and Athlete[4]

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Attachment styles are about how people interact with others and how they are affected by their experience. In the later years of human life, attachment styles may vary in stability. Therefore, it is also possible to influence the attachment styles of peers, colleagues, athletes, coaches or trainers in sports environments. The relationships between the coach and the athlete/the athlete and the coach are very important for the success of the sporting process. Davis and Jowett have used the basic structures of bonding theory to produce knowledge and understanding in the context of sports, and expressed the need for a valid and reliable measure of their attachment style in the relationship between the athlete and coach and they developed a new psychometric scale for this purpose. The aim of this study is to test "The Turkish validity and reliability of the attachment styles in the relationship between the coach and athletes/athletes and coach" developed by Davis and Jowett (2013). The study group consisted of 554 athletes and 511 coaches. For the Turkish adaptation of coach and athletes/athletes and coach, respectively; language validity, content validity, pilot study, structure validity and reliability analyzes were performed. In the analysis of data; SPSS and AMOS Programs are used. In the study, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed to check the structure validity of CAAS. The Kaiser-Meyer-Olkin (KMO) coefficient and the Barlett Sphericity test were examined for the adequacy and suitability of the sample group to AFA. In the factor analysis process, Varimax vertical rotation technique was applied. The item test total correlation and item discrimination values of both versions were examined. As a result of the analysis, 3-factor and 19-item scale were obtained in the „coach and athletes/athletes and coach versions. DFA was conducted to examine the compatibility of the 3-factor model of coach and athletes/athletes and coach scale coach and athletes/athletes and coach versions with total data. In the analysis, the model-data harmonization was examined and improvement was made. Afterwards, it was seen that the accepted values for fit indexes were obtained in the renewal index calculation (Athlete: RMSEA 078; GFI 90; AGFI 863;CFI 900; χ2ise

[4] It had been produced from doctorate thesis with same title.

4,366(p=,000) CMIN/df 4.366 / Coach: RMSEA 076; GFI 90; AGFI 859; CFI 903; χ2ise 3,943(p=,000) CMIN/df 3,943). Scale; for Coach-Athlete Attachment version, α = 0,775 is determined as a reliable measurement tool with the value of α = 0,836 for the Athlete- Coach Attachment version. As a result, it was determined that the Attachment Style Scale Relationship between CoachAthlete/Athlete-Coach is a valid and reliable measurement tool in Turkish culture and it was adapted in Turkish.

Keywords: Attachment Styles, Coache, Exercise and Sport Psychology.

Presentation Type: Oral Presentation

Socio-Demographic Variables and Diagnostic Profiles of Students at the Counseling Center of International University of Sarajevo

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The purpose of this study was to illustrate the socio-demographic variables and diagnostic profiles of the students who applied to the counseling center between February 2018-February 2019, and to determine the contents of future trainings and psychoeducation at the International University of Sarajevo. Data regarding the socio-demographic variables, history, and diagnoses of 67 (31 male, 36 female) students who applied to the counseling center and gave consent between the years of 2017 and 2018 were analyzed through retrospective case record review. Based on the socio-demographic variables, history, and diagnoses of the students, descriptive statistics method was used. Data analysis suggests that among the participants, 61% (n = 41) were smoking whereas 49% (n = 33) were using alcohol; 3% (n = 2) were using drugs, and 9% (n = 6) were suicidal. In terms of the diagnosis of the participants, 25,4% (n = 17) had problems related to family; 11,9% (n = 8) had problems related to partners; 10,4% (n = 7) had anxiety disorder; 10,4% (n = 7) had anxiety disorder not otherwise specified; 7,5% (n = 5) had problems related to field of study; and 6% (n = 4) had problems related to career and future planning. Prevalence of smoking and using alcohol suggests that the focus of counseling center can be more on preventing and giving psychoeducation about these issues in the forthcoming years. Besides, diagnostic profile of the students can guide the counseling center staff in helping students acquire the necessary coping skills.

Keywords: Alcohol Use, Substance Use, Counseling, Students Counseling Center.

Presentation Type: Oral Presentation

Examining the Leadership Tendencies and Self Confidence Characteristics of Athletes Concerning Certain Variables

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This study is a descriptive research aiming at examining leadership tendencies and self-confidence characteristics of athletes. The study was conducted on 524 voluntary athletes (304 males, 220 females) who were actively doing sports in Konya in 2019. In data collection, the "Leadership Tendency Scale" was used, which was developed by Bolman and Deal (1991) and adapted to Turkish by Develi (2003), and the "Self-Confidence Scale" was used which was developed by Akın (2007). The SPSS 22.0 package program was employed in the analysis of the data. As the statistical method, it was determined that the data demonstrated a normal distribution, thus, the Independent Samples t test and the One Way Anova tests were conducted. As the conclusion, it was observed that the individuals dealing with team sports had higher structural leadership and political leadership tendencies compared to the athletes dealing with individual sports. Concerning the age variable, the individuals in the 27-and-over age group had more positive structural leadership tendencies compared to the younger age groups, but there was statistically no significant difference concerning the self-confidence. As per the gender variable, it was determined that female athletes had higher tendencies in human-driven leadership and symbolic leadership, while there was statistically no significant difference concerning their self-confidence levels. In terms of the sports experience of the athletes, it was observed that the ones with longer sports experience had higher scores in the structural leadership and political leadership sub-dimensions, while the ones with shorter sports experience had higher scores in the symbolic leadership and human-driven leadership sub-dimensions.

Keywords: Athlete, Leadership, Self-Confidence.

Presentation Type: Oral Presentation

The Biomechanical Analysis of the Snatch Lifts in Elite Turkish Women Weightlifters

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The purpose of the study was to evaluate the kinematics of the snatch technique of elite Turkish women weightlifters participated in the 21th World Women Weightlifters Championship. Successful snatch lifts of elite four women weightlifters in 48, 53 and 63 kg body weight categories were analyzed. The lifts were recorded using 2 cameras (PAL). Points on the barbell and body were manually digitized by using Ariel Performance Analysis System. The results showed that the maximum height was 112-118 cm, and that the vertical velocity of the barbell ranged from 1.64 to 1.96 $m.s^{-1}$ in the second pull. After the second pull, the barbell continued to move vertically and the travel distance of the barbell was 21-29 cm. After the barbell reached maximum height, the barbell began to descend due to the gravity until the barbell fixed over the head in the squat position. This travel of the barbell is named as the drop distance was in the range of 10-17 cm. Meanwhile, the duration of the turnover under the barbell of body was found in the range of 0.44-0.64 s. The amount of horizontal displacement of the barbell ranged from -2 cm to 8 cm during the first pull and from -1 cm to 12 cm during the second pull. When the barbell began to descend from peak height, the horizontal displacement of the barbell ranged from 2 to -17 cm. As a result, it was revealed that the performance of elite Turkish women weightlifters was similar to the results of previous studies for the snatch performance in the elite women weightlifters.

Keywords: Snatch, Kinematic, Woman Weightlifter, World Weightlifting Championship.

Presentation Type: Oral Presentation

Root Cause Analysis of Fallings in a University Hospital

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Objective: Falling events at hospital were frequently met risks affecting the treatment of patients negatively. This study was aimed to determine the root cause analysis of fallings in Erciyes University Health Application and Research Center (EUSUAM).

Materials and methods: The universe of this descriptive study included falled patients in EUSUAM between October 2018 and March 2019 (N:79). Data of the study have been collected by the "Evaluation Form of the Falled Patient" created by researchers. Itaki scale in adults and Harizmi scale in children were used to, evaluate the falling risk of the patients. Number, percent distribution and mean distributions were used in the analysis.

Findings: Fall-down rate of the patients for this period was calculated as 0.0824. The mean age of falled patients was 66.5 years, 54.4% of them were male and 64.6% of them stayed with a companion. The rate of risky considered patients was 89.9% at the admission to hospital and 86.1% at the last risk assessment before falling. Rate of the patients with a chronic disease was 79.7% and 87.3% of them was using medication regularly. Clover figure has been used for 82.3% and restriction application has been performed for 94.9% of falled patients. Most of the falled patients (55.7%) were aged 65 and over, 38.5% of the fall-down events were occurred between 24.00-07.59 hours, 53.9% of them occurred in the first four days of the hospitaliation, 43.0% of them occurred in the patient room.

Conclusion: It is noteworthy that fall-down events occurred most frequently in elderly patients, in the first hospitalized days, and during evening-night hours. Elderly patients should be followed up more carefully in terms of falling down. Good introduction of the environment at the admission to hospital will be beneficial in terms of reducing the fall down events.

Keywords: Patient Safety, Root Analysis, Patient Fall-Down Events.

Presentation Type: Oral Presentation

SESSION 2D

Time: 14:00-15:30

Investigation of the Role of Agmatine and Polyamine Pathway in Schizophrenia by Acoustic Startle Reflex of Prepulse Inibition in Rats

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Distruption of the startle reflex with a weak pre-pulse is one of the most valid methods to model schizophrenia and schizophrenia spectrum disorders. Pre-pulse inhibition (PPI) test system reflects the filtering mechanism in the brain. Agmatine is considered to be a new neurotransmitter and known that it's high doses disrupt the PPI. In addition, in post-mortem studies, agmatine and spermine, spermidine which are the metabolites of agmatine were found to be high in blood, brain and cerebrospinal fluid (CSF) in patients with schizophrenia. The aim of this study is to support the role of polyamine pathway in the pathogenesis of schizophrenia. The role of polyamine pathway in PPI was investigated in detail in rats by using agmatine, D-arginine, ornithine, spermine, spermidine, ketamine (NMDA receptor antagonist), clonidine (alpha 2 receptor agonist), idazoxan (alpha 2 receptor antagonist), apomorphine (dopaminergic agonist) and haloperidol (dopaminergic antagonist). According to the data; agmatine has disruptive effects on the PPI ($p<0.05$, Student's t test). In addition, the data suggest that the stimulation of alpha 2 ($\alpha 2$) adrenergic receptors may be associated with PPI but that the effects of agmatine on PPI may be related to N-methyl-D-aspartate (NMDA) antagonism rather than $\alpha 2$ adrenergic receptors.

Keywords: Agmatine, Polyamines, PPI, Schizophrenia, Rats.

Presentation Type: Oral Presentation

Smartphone Addiction, Peer Relationships and Loneliness in Adolescents[5]

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Introduction: Increased use of the Internet, social networks and smartphones have caused problems as deterioration in social relations and loneliness among adolescents. So, this study was conducted as a descriptive study in order to determine the levels of smartphone addiction, peer relationships and loneliness in adolescents and the relationship between them.

Methods: The study sample consisted of 500 adolescents 14–18 aged, at 9th–12th grade at high school in 2018-2019 academic year. In the study, the permission of the institution, Ethical Committee, the parent and adolescent consent, the data were collected using a questionnaire form, Smartphone Addiction Scale-Short Version (SAS-SV), Friendship Qualities Scale (FQS) and UCLA Loneliness Scale (ULS). The descriptive statistics, Shapiro-Wilk, Spearman correlation tests were used for analyzing data.

Results: In the study, the mean age of the adolescents, the age of having the first smartphone and the daily sleep time were found to be 15.68±0.83 years, 13.39±1.36 years and 7.47±1.31 hours, respectively. Of the adolescents; 57.8% were girls and 65.2% had health problems (the most frequent attention deficit, visual problems) and 82.6% were connected to social networking sites (instagram, whatsapp, etc.). In this study, the SAS-SV, FQS and ULS mean scores were 27.82±11.53, 81.88±15.68, and 41.99±8.62, respectively. There was a weak and positive correlation between companionship subscale of the FQS and ULS with the SAS-SV. There was a weak and negative correlation between conflict subscales of the FQS and SAS-SV.

Conclusions: Smartphone addictions and loneliness levels of adolescents were found to be moderate and peer relationships were good. Providing a special education to adolescents and their parents to raise awareness on the negative effects of smartphone addiction may be recommended.

[5] This study was supported by Erciyes University Scientific Research Projects Unit with TSA-2018-8301 coded project.

Keywords: Adolescent, Loneliness, Peer Relationships, Smartphone Addiction.

Presentation Type: Oral Presentation

Morpho Anatomical Characteristic of the Cormation of Structural Elements of the Vegetative Organs *Artemisia Szovitsyana*

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As a result of the carried out morph anatomic research, the species of *A.Sovoviana*, were known a number of archaic characteristic features of the species. The root carries out to the second structure very early. The main reason for this was to complete the rhizogenesis in a short period of time, using the mushroom's moisture. In arid zones according to low moisture during the summer and autumn months, root and are intensely developed during the wet seasons. The development of the root occurs largely by the development of the two types of meristems, such as fallow and tube cambi. In the body, balloon balls are observed with mechanical tissues (collenchyma, sclerenchyma and sclereids cells). This ensures both mechanical strength and elasticity of worms. Strongly developing of xylene in all plant organs, as a rule, additionally strengthen to the plant. The leaf tissue is an amphistomatic eclivacial type and consists of heterogeneous mesophilic fibrous tubular gear balls. The landmarks are marked by dark brown, air-filled matter. In the epidermis, various types of trixomas are usually subdivided into the lower extremities. Abacus epidermis is mainly observed with headache trixomas.There are two large spaces in the lower part of the stem. This space is an aerenchyma source, allowing water to collect in the humid air and to act as a motor cell and direct the leaf to different directions.

Keywords: Archaic Characteristic, Mechanical Tissues, Tube Cambi, Motor Cell, Mesophilic.

Presentation Type: Oral Presentation

Some Quality Parameters of Buffalo Milk and Dairy Products Produced in Cukurova Region

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In this study, 15 buffalo milk sample, 20 buffalo yogurt sample, 20 buffalo cream sample, 10 buffalo White cheese sample and 10 buffalo Tulum cheese sample were collected from local markets in Cukurova region and some chemical and physical analyses were performed on these samples. As a result of these analyses; the average composition of buffalo milk was found as; 16.90±0.88% dry matter content, 7.30±0.56% fat content, 4.36±0.48% protein content, 0.53±0.08% ash content, 1.032±0.002 g/cm^3 density, 6.63±0.13 pH value and 0.20±0.01% titratable acidity. The average analyses results of buffalo yogurt were found as; 19.36±1.34% dry matter content, 6.54±1.02% fat content, 0.64±0.06% total nitrogen content, 4.09±0.42% protein content, 1.36±0.50% ash content, 15.57±3.13 ppm acetaldehyde content, 0.025±0.008 mg/g tyrosine content, 11.93±3.32% whey separation, 59.95±22.17 10^{-1}mm curd firmness, 4.20±0.09 pH value and 1.38±0.15% titratable acidity. The average analyses results of buffalo cream were found as; 85.31±0.82% dry matter content, 78.00±0.75% fat content, 4.01±0.05% protein content, 0.43±0.09% ash content, 58.70±9.21 10^{-1}mm curd firmness, 4.55±0.08 pH value and 0.15±0.16% titratable acidity. The average analyses results of buffalo White cheese and Tulum cheese were found as; 42.86±2.07% and 65.56±3.28% dry matter content, 19.85±3.70% and 36.2±2.39% fat content, 2.88±0.30% and 2.46±0.21% total nitrogen content, 18.40±1.95% and 15.71±1.34% protein content, 3.88±0.61% and 3.52±0.32% ash content, 0.57±0.13% and 0.64±0.04% salt content, 1.33±0.28% and 0.98±0.05% salt in dry matter content, 0.16±0.06% and 0.15±0.01% water soluble nitrogen (WSN) content, 5.48±2.17% and 6.00±0.64% ripening degree, 0.04±0.03% and 0.05±0.02% trichloro acetic acid (TCA)-soluble nitrogen, 0.11±0.11% and 0.13±0.13% phosphotungstic acid (PTA) soluble nitrogen, 97.20±31.05 10^{-1}mm and 16.4±5.79 10^{-1}mm curd firmness, 5.88±0.18 and 5.19±0.20 pH value and 0.32±0.09% and 0.68±0.11% titratable acidity, respectively. As a result of this study is aimed to

contribute to the literature in order to eliminate the existing information about buffalo milk products.

Keywords: Buffalo Milk, Buffalo Milk Products, Physicochemical Properties.

Presentation Type: Oral Presentation

Social Anxiety and Parental Attitude in Adolescents

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Introduction: Social anxiety is one of the important problems faced by adolescents. Social anxiety, which is defined as fear of negative evaluation and discomfort in social settings, negatively affects adolescents' social interaction process. Therefore, this study was conducted as a descriptive study in order to determine the parental attitude and social anxiety levels in adolescents and the relationship between them.

Method: The study was conducted with 14-18 age group adolescents (n = 700) in 9-12 classes of high schools affiliated to a Provincial Directorate of National Education in Central Anatolia Region in the 2018-2019 academic year. The research was conducted with the consent of the ethics committee, institution, parent and student. Data were collected by using questionnaire form for adolescents, Social Anxiety Scale for Children (SASC-R) and Parenting Attitude Scale (PAS). Descriptive statistics, Shapiro-Wilk, Mann-Whitney U, Kruskal-Wallis and Pearson correlation tests were used to evaluate the data.

Results: The mean age, weekday and weekend daily sleep time of adolescents were 16.14 ± 1.09 years, 6.99 ± 1.37 and 8.83 ± 1.89 hours respectively. Of the adolescents; 64.0% had female, 84.3% had nuclear family structure, 40% used internet for 1-3 hours on weekdays, 36.5% used internet for 3-5 hours on weekends, 90.5% had no chronic diseases in their families. The mean scores of SASC-R and Acceptance-Relation, Psychological Autonomy and Control-inspection subscales of PAS the adolescents were 36.20 ± 11.07 (p = 0.000), 26.93 ± 4.21 (p = 0.000), 22.60 ± 4.68 (p = 0.000) and 21.85 ± 10.90 (p = 0.000), respectively. It was found that there was a weakly negative correlation between the scores of SASC-R and Acceptance-Relation, there was a weak positive relationship between the Acceptance-Relation subscale of PAS score and the Psychological-Autonomy and Control-inspection subscale scores of PAS.

Conclusion: It was found that adolescents of social anxiety scores were moderate and social anxiety levels decreased as parental attitude increased. For this reason, parents

may be advised to spend more time with their children to reduce the level of social anxiety of adolescents. In addition, health professionals can train families on parental attitudes.

Keywords: Parental Attitude, Adolescent, Social Anxiety.

Presentation Type: Oral Presentation

SESSION 3A

Time: 16:00-17:30

Examination of Nursing Theses on Complementary and Alternative Therapies Related to Pain in Newborns in Turkey

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Objective: This descriptive study was conducted to examine the thesis of nursing practice related to complementary and alternative therapies related to pain in newborns in Turkey.

Method: In this study, National Council of Higher Education Dissertation Center Data Base were screened by keywords which is "pain in newborn", "complementary", "alternative therapies", "complementary and alternative therapies". At the end of the study, 25 theses were determined in the Department of Nursing between 1998-2019 and the information about these theses were obtained. Two theses, which do not have sufficient data in the imprint information and whose full text could not be reached, were excluded from the study and a total of 23 theses were evaluated in the research.

Results: All of the theses studies (23 theses) were experimental studies. 16 of the theses were made at the master's level and 7 of them were at the doctoral level. The most studied subject in theses was pain due to invasive intervention (18 theses). The most commonly used complementary and alternative treatment methods in the theses were; developmental position (3 theses), hot application (1 thesis), acupressure (1 thesis), amniotic fluid odor (1 thesis), bath (1 thesis), breast milk odor (2 theses), lavender scent (1 thesis), breastfeeding (4 theses), music therapy (4 theses), mother voice (5 theses), mother heart sound (1 thesis), massage (1 thesis), kangaroo care (8 theses) and fetal position (5 theses). Complementary and alternative medicine methods used in 12 theses were found to be effective on pain reduction.

Conclusion: In recent years, pain in the newborn is one of the major areas of interest in pediatric nursing research. It may be said that complementary and alternative treatment methods used to reduce pain attract the attention of nurses have postgraduate education in the field of pediatric nursing in our country.

Keywords: Nursing, Complementary and Alternative Treatment Methods, Pain in the Newborn.

Presentation Type: Oral Presentation

Subacute Sclerosing Panencephalitis and Nursing Approach: A Case Report

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Subacute sclerosing panencephalitis (SSPE) is one of the progressive and fatal diseases of the central nervous system which is frequently seen in childhood and early adolescence. The development of measles virus infection before the age of two is a risk factor for SSPE. Although primary measles infection did not differ according to gender, SSPE was more common in men (male / female ratio: 3/1). It has been proven that the effective measles vaccine reduces the incidence of the disease and that the measles vaccine does not cause SSPE. It occurs approximately 7-10 years after natural measles infection and neurological symptoms develop slowly. Regression of myoclonus with involuntary movements, mental, neurological, extrapyramidal and pyramidal symptoms, deserebre or decorticated posture, increase in extensor hypertonus, deserebre rigidity, hyperthermia, excessive sweating, irregular respiration and stridor can be seen. In this case report, we aimed to draw attention to the nursing care of SSPE. An 8-year-old male patient was admitted to the outpatient clinic with complaints of inability to speak, walk, communicate with the environment, loss of balance and seizure for two months. It has been stated that the patient has involuntary contractions on the right side of the body for the last ten days. The patient's history revealed that his vaccines were incomplete and he had measles infection when he was about two years old. SSPE was diagnosed as a result of clinical symptoms and examinations. Nursing activities play a key role in prevention, early diagnosis, treatment, care and rehabilitation of SSPE which has severe symptoms and results in death. Therefore, nurses should provide accurate, reliable and sufficient information to their family members about the disease. The patient should be assisted to the extent that he or she can perform daily life activities. Eating and drinking function should be supported as long as the patient can perform. As long as the patient is able to perform the defecation function, the patient should be appropriately positioned and encouraged to use sliders. After the patient loses control of the defecation, it should be ensured to maintain defecation function and the hygiene of the defecation should be given importance. The elimination of secretions and the maintenance of respiration should

be supported. Passive exercises should be performed in the bed to the extent that the patient can tolerate. In order to prevent the development of negative emotions as loneliness, the patient should be given the message in you are “valuable”.

Keywords: Subacute Sclerosing Panencephalitis, Nursing Care, Measles.

Presentation Type: Oral Presentation

Determination of Fish Consumption Habits and Preferences of the Students in the Faculty of Health Sciences at Trakya University

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Compared with other meats, the fish meat is easy to digest and has high protein and fat content. In addition, the vitamins and minerals it contains increase the nutritional value of the fish. This study was made to determine the fish consumption habits and preferences of university students. The study was made with 180 volunteer students studying at the Faculty of Health Sciences of Trakya University. A 28-item questionnaire consisting of sociodemographic status, frequency of fish consumption and the most preferred fish species were asked to the participants. The analysis of the surveys were examined in SPSS 23 program. Proportional stratified random sampling method was used to obtain the data. Of the 180 students who participated in the study, 46 (25.6%) were male and 134 (74.4%) were female. When the type of meat preferences of the participants were questioned, it was found that white meat was the first choice with 72.8%, red meat was the second with 21.7% and the fish meat was the lowest with 5.6%. When the most preferred type of fish is questioned, ıt was determined that anchovy was consumed the most regardless of income group (41.9%). As cooking method deep frying method (53.9%) is used most, this is followed by oven

cooking (23.3%), grilling cooking (14.4%), steaming (4.4%) and other cooking methods (1.7%). In general, fish consumption was found to be low and more advertising, training and government incentives were needed to increase consumption.

Keywords: University Students, Fish, Consumption Habits.

Presentation Type: Oral Presentation

Recent Situation of School Milk Program in Turkey

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Adequate and balanced nutrition is important for the protection and development of human health. In all societies, children are the most sensitive group in terms of health and nutrition. Because children express both the most powerful potential that constitutes the future of a society as well as individuals in need of protection. For this reason, in order to give children the habit of consuming milk as in many countries of the world was also in Turkey "School Milk Program" is being implemented. In this study, it was aimed to determine whether school milk consumption is dependent on gender and whether there is a difference between school milk consumption between grades and School Milk Program of the latest situation in Turkey were examined. The data obtained by using a self-administered questionnaire survey were used from 217 primary school students who were in 2nd, 3th and 4th grades. The collected data was analyzed by SPSS package and interpreted according to chi-squared test. The results showed that 82.9% of the students (42.8% of female and 40.1% of male) consumed school milk. 83% of female students participating in the research and 82.8 % of male students participating in the research consumed school milk. While the percentage of famale students drinking school milk among total school milk drinker students was 51.7%, it was 48.3% for male students. It was determined that primary school students who participated in the study; 81.4% of the second grade students, 86.25% of the third grade students and 80.6% of the forth grade students consumed school milk. It was found that there was no relationship between gender and grades and school milk consumption. Similar studies on school milk which were obained in Adana, Mersin and Osmaniye, different countries of Turkey, conducted similar results. In these studies, in order to gain individuals the habit of drinking milk at a young age; first of all, it was emphasized that the parents should be educated, the advertisements about the importance of dairy products in terms of health should take place more on social media, experts should provide nutrition education in schools, and dairy products should be included more in school canteens. According to the estimated realization figures of the school milk program of 2017-2018 academic year published by National Milk Council in Turkey, three days a week in 32 128 schools to 6.0564 million students 254 368 800 pieces 200 ml of UHT milk is distributed in totaly. In many countries, the School Milk Program is still successfully implemented. But; continuing uninterruptedly School Milk Program in seven years, seven different geographical

regions of Turkey, during the 2018-2019 academic year 2 has been removed quietly. In other regions of our country and in the provinces to be determined, it will be appropriate to investigate the current status of the School Milk Project and support more effective projects.

Keywords: School Milk, Turkey, Questionnaire Study, Primary School Student.

Presentation Type: Oral Presentation

Preterm Newborn Care with Mechanical Ventilation: Example of Concept Map

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Introduction: Concept map, which is a visual presentation of the relationship between key terms derived from the subjects learned is a method used to determine how students perceive, synthesize, and evaluate their conceptual understanding. Concept maps that improve nursing students' problem-solving, critical thinking skills also help students to understand the relationship between medical condition of the patient, disease response, and nursing interventions.

Method: The care of a preterm newborn, who hospitalized in a neonatal intensive care unit of a university hospital, was born at 28th gestational age from the third pregnancy of a 38-year-old mother and weighed 1120 gr, was followed with the diagnosis of prematurity + hyperbilirubinemia + RDS and mechanically ventilated was schematized with the concept map. The data of the newborn collected using functional health patterns; are discussed features of preterm newborn period, disease symptoms, diagnostic methods, possible complications, patient care with mechanical ventilation, treatment and parents.

Results: The newborn was given the following diagnoses: inability to sustain spontaneous respiration, change in respiration pattern, deterioration in gas exchange, deterioration of peripheral tissue perfusion, retardation in growth and development, skin integrity deterioration, change in oral mucous membranes, insufficiency of sensory stimulation, lack of self-care, risk of complications related to mechanical ventilation, risk of complications related to phototherapy treatment, risk of aspiration, risk of liquid electrolyte imbalance, failure of mother-infant interaction. The planned and applied nursing interventions related to these diagnoses are discussed and evaluated.

Conclusions: As a result; the concept map can be suggested as an application tool that makes it easier for nursing students to give holistic care by using problem solving and systematic thinking skills, provides meaningful learning and can be used to evaluate students.

Keywords: Nursing Care, Concept Map, Mechanical Ventilation, Preterm Newborn.

Presentation Type: Oral Presentation

SESSION 3B

Time: 16:00-17:30

Use of Aluminum Alloys in Automotive Industry

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Increasing competition in the automotive sector and the development of environmental awareness have led the manufacturers to new approaches. Companies increase the production efficiency of vehicles and work to reduce operating costs. New vehicles manufactured with lighter materials than those in the past, with reduced safety and comfort, reduced fuel consumption and reduced exhaust emissions; they are less harmful to the environment. For compelling reasons for reducing fuel economy and exhaust gas output on vehicles; aluminum alloys are traditional steel and cast iron substitutes. Especially in recent years with the understanding of the importance of energy saving; In the automotive industry, tendencies towards lighter and less energy-consuming designs have increased. Aluminum alloys have low density, high strength, easy shaping, good resistance to corrosion, high resistance to external conditions and easy to recycle; are the main reasons they are preferred in vehicle designs. The use of aluminum alloys in vehicle constructions plays an important role in reducing vehicle weight. With a 10% reduction in the total weight of the car; a fuel saving of 5-10% is achieved in the total spent fuel per kilometer. This also means a reduction in the emission gases emitted from the vehicle.

Keywords: Automotive Industry, Aluminum Alloys, Vehicle Constructions.

Presentation Type: Oral Presentation

Thickness Dependence of Fe/Al Multilayers

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In this study, two types of Fe/Al multilayer series were considered for investigation and each of them was obtained with a sputtering technique under high vacuum at room temperature. For the first ones, the total thickness of the films was fixed at 200 nm and the thickness of the Fe layers was decided as 7.5 nm, 12.5 nm and 27.5 nm, separately. And, the thicknesses of 100 nm, 125 nm and 175 nm were separately used to investigate the effect of different total thicknesses. An energy dispersive X-ray spectroscopy was served to reveal the atomic content of multilayers, in addition to X-ray diffraction (XRD) technique which was used for crystal structure analysis. Atomic Fe content increased gradually from 83 % to 99 % when the thickness of Fe layers increased from 7.5 nm to 27.5 nm. However, Fe content was almost stable (63±1 % at.) for different total thicknesses. The crystal structure took shape as a mixture the body centered cubic (bcc) and the face centered cubic with dominant bcc phase for the first series. The XRD patterns slightly changed for the films investigated in second series despite the same content because of the relatively high interaction between X-ray and film atoms in relatively thick films. A vibrating sample magnetometer was applied to obtain the magnetic data. Principal magnetic characters were affected by the different thicknesses of Fe layers. It was concluded that thickness of Fe layers and total thickness of films undertake an important act to alter the characteristics of Fe/Al multilayer films.

Keywords: Crystal Structure, Fe Layers Thickness, Sputtering Technique, Total Film Thickness.

Presentation Type: Oral Presentation

Neutron Attenuation Properties of Hexagonal Boron Nitride-Titanium Diboride Composites for Pu-Be Neutron Howitzer

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In this study, neutron attenuation properties of hexagonal boron nitride-titanium diboride (hBN-TiB_2) composite material were investigated against Pu-Be neutron howitzer source. hBN-TiB_2 composites contains 55% hBN by weight with density of 2.214 g/cm^3. Neutron transmission technique was used in the experiments. Neutron attenuation ratios were carried out for both thermal and epi-thermal neutrons by using the thermal channel of the Pu-Be neutron howitzer. The total macroscopic cross-section of hBN-TiB_2 composite was determined as 0.257 cm^{-1}. hBN-TiB_2 composites are candidate materials for neutron attenuation and thermal neutron shielding applications.

Keywords: Hexagonal Boron Nitride, Titanium Diboride, Neutron attenuation, Pu-Be Neutron Source.

Presentation Type: Oral Presentation

Novel Thylakoid Membrane Based Photobioelectrochemical Fuel Cells for Generating High Photocurrent by Using Photosynthesis

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Photosynthesis is an efficient, sustainable and complex process converting the light energy into chemical energy in fuel cells. Thylakoid membranes and photosystems isolated from plants or cyanobacteria are frequently used as a source for converting the light into electrical energy. In this study, a photo-bioelectrochemical fuel cell, pBFC, was constructed for photocurrent generation by illuminating the electrodes within an aqueous solution. Gold electrode was coated with poly 4-(4H-Dithieno[3,2-b:2′,3′-d]pyrol-4-yl) aniline, P(DTP-Ph-NH2) conductive polymer film by using electrochemical polymerization. Then, P(DTP-Ph-NH2) conductive polymer film coated surface was electrochemically modified with cytochrome C, Cyt C which covalently linked onto the surface via bis-aniline functionality of the polymer film and formed crosslinked-structure. The thylakoid membrane was attached on the surface of this electrode by using bissulfosaxinimidyl suberate and used as photo-anode in pBFC. The photocathode of the pBFC fabrication was followed by the modification of conductive polymer poly[5-(4H-dithieno [3,2-b:2′,3′ d]pyrol-4-yl) naphtalene-1-amine] film coating, glutaraldehyde activation, and bilirubin oxidase enzyme immobilization. During the photosynthesis occurring in thylakoid membrane under the light, water was oxidized and separated; while oxygen was released in anode side, the cathode side was reduced the oxygen gas into the water via a bioelectrocatalytic method. The highest photocurrent measured from the electrodes having Cyt C compared to the other electrodes (without Cyt C). The maximum power generation of biofuel cell was reached at pseudo-steady state as 4.9 mW/m2 at a current density of 15 mA/m2 under illumination of visible light 1400 W/m2. This system shows how to obtain high efficiency from photo-bio-fuel cells and its importance; good electrical communication and the use of natural components. Moreover, in such bio-hybrid systems, achieving high photocurrent is dependent on the well-organized electrode platforms which allow electron transportation [1].

Keywords: Photobioelectrochemical Fuel Cell, Photocurrent Generation, Photosynthesis, Conducting Polymer, Thylakoid Membrane.

Presentation Type: Oral Presentation

Microhardness and Microstructural Characteristics of AL-3NI-3SB Alloy[6]

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Rapid solidification process for the manufacture of metallic alloys mechanical properties markedly the same composition is better than conventionally solidified alloy. Increased solid solubility limit, and better distribution of secondary phases in alloys due to rapid solidification improve mechanical properties. Moreover, it is possible to fabricate metastable samples such as, amorphous, nano-crystals and quasi-crystals alloys by cooling metallic melts at cooling rates over the 10^4 Ks^{-1}. On the other hand, Al-Ni based alloys is widely used in automobile, aircraft and weapons industry due to its high mechanical properties, light weight, good portability and excellent corrosion resistance. The physical properties of Al-Ni alloy are being developed with the help of alloying elements such as Si, Cu, Zr, etc. In this study, the effect of rapid solidification production method on the microstructural and mechanical properties of Al–3Ni-3Sb alloys was investigated. The Al–3Ni-3Sb samples were produced by the ingot casting and melt spinning methods at 20 m/s. The morphologies of the alloys were analyzed by optic microscopy (OM) and the phase structures were examined by X-ray diffractometry (XRD). The microstructure has significantly changed with rapid solidification; the microstructures changed from transformed into smaller dendrites and particles than larger rods and dendrites with rapid solidification process. The X- ray diffraction patterns of the melt spun samples at 20 m/s showed Al_3Ni and AlSb and the α–Al phases. The mechanical properties of the ingot and melt-spun alloy was measures Vickers micro-hardness test method. The microhardness values of the rapidly solidified sample were about 3.3 times higher than those of ingot counterpart sample.

Keywords: Al–3Ni-3Sb sample, Melt-spinning, Microstructure, Microhardness.

Presentation Type: Oral Presentation

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SESSION 3C

Time: 16:00-17:30

The Effect of Single and Twin Pregnancy on Complete Blood Count, Mineral Substance, IgG and Lamb Birth Weight in Advanced Pregnant Sheep and Their Newborn Lambs

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This study was performed to investigate the possible effects of single and twin pregnancy on complete blood count, mineral substance, IgG concentration and lamb birth weight values in advanced pregnant ewes and their newborn lambs in 18 crossbred sheep at the 130^{th} -150^{th} days of pregnancy and their 27 newborn lambs. The sheep used in the study were divided ultrasonography into two groups as single pregnant (n: 9) and twin pregnant (n: 9) and then their blood samples were taken. All lambs were weighed on a precision scales at birth and at the time they had enough colostrum. The blood samples of these lambs were taken from 24 hours after the birth, these samples including those obtained from the sheep were all assessed with regard to complete blood count, mineral substances (Ca, Mg, P, K, Na, Fe, Mn, Cu, Zn and Co) and IgG concentration. It was determined that RBC count in single pregnant sheep were higher than twin pregnant sheep, whereas WBC count in twin pregnant ewes was significantly higher than single pregnant sheep. Fe level was significantly higher in sheep carrying single offspring compared to those with twin offspring. In terms of serum IgG concentration, no difference was found between sheep carrying single offspring and those carrying twin offspring. There was a statistically significant difference between single and twin lambs in terms of blood parameters, mineral substances and IgG concentration. According to their birth weights, single lambs were found to be significantly heavier than twin lambs. In terms of sex variable, male lambs were found to be heavier than females although the difference was not statistically significant. It was concluded that single and twin pregnancy may have effects on blood parameters, mineral substance levels and IgG concentration when the data of advanced pregnant sheep and the lamb newborn from them are considered.

Keywords: Blood Count, Mineral Substance, Newborn Lambs, Twin Pregnancy.

Presentation Type: Oral Presentation

The Protective Effect of Vitamin D against Radioiodine (RAI) Therapy Damage to Male Fertility

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We evaluate antioxidant effects of active vitamin D (calcitriol) against high-dose radioiodine (RAI) therapy-associated damage of male fertility. Wistar albino rats were used and randomly into three groups (n=12). The first group was appointed as the negative control group and received no RAI or medication. The second group (RAI group) was administered only received 3 mCi/kg (111 MBq/kg) RAI by gastric gavage as the positive control group and the last group (RAI+calcitriol) was the treatment group that received 3 mCi/kg RAI by same method and calcitriol (200 ng/kg/day) by intraperitoneal route. Seven days after, intracardiac blood samples were taken for hormone analysis and testis samples were removed for the evaluations of

histopathologic, total oxidant status (TOS), total antioxidant status (TAS), spermatological parameters. Caspase-8, and caspase-9 were used to show increased apoptosis resulting from testis damage and the terminal deoxynucleotidyl transferase mediated deoxyuridine triphosphate nick end labeling (TUNEL) assay was used to determine the frequency of possible DNA breaks because of treatment. RAI led to significant increase in tissue TOS levels and significant decrease TAS levels ($p<0.05$). It was demonstrated a significant decrease in epididymal spermatozoa viability and motility in all of the treatment groups, in comparison with the control group ($p<001$). A significant decrease was also detected in sperm DNA fragmentation, follicle-stimulating hormone (FSH) level in the RAI+calcitriol group when compared to the radioiodine group. The staining intensity of caspase-8, and caspase-9 antibodies was found to be statistically more significant in the RAI+calcitriol group than in the RAI group ($p<0.05$). The nuclear highlighting shown by the TUNEL was more increased in the RAI group than in the RAI+calcitriol group ($p<0.05$). Vitamin D demonstrated potent antioxidant and radioprotective effects on testis against RAI-induced oxidative damage.

Keywords: Fertility, Radioiodine, Rat, Vitamin D.

Presentation Type: Oral Presentation

Relationship between Thiol / Disulphide Homeostasis and Endometrial Inflammation in Postpartum Dairy Cows

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Thiol groups are important anti-oxidants and essential molecules protecting organism against the harmful effects of reactive oxygen species. The current study was designed to investigate Thiol/Disulphide Homeostasis (TDH) in infertile cows with subclinical endometritis (SCE). The study was performed on three groups. Endometrial cytological samples (n=40) were collected using cytobrush to diagnose SCE in infertile cows. These cows were divided into acute SCE (group I; n=20) and chronic SCE (group II; n=16) subgroups according to the cytological examination. As the control, group III (n=20) was comprised from healthy heifers without any gynecological abnormality. Blood samples were taken from each group on the day of diagnosis (day 0) to determine TDH. TDH was determined using a recently developed novel automated and spectrophotometric method. In cytological evaluation, in addition to Giemsa method, immunocytochemical staining was performed to detect chronic inflammation and to investigate the presence of an active infection. It was determined that 55.55% (20/36) of cows with cytological endometritis had an active inflammation and % 44.44 (16/36) of them were chronic. In our study, native thiol and total thiol levels were lower in acute (206.54±8.30; 227.11±9.30) and chronic SCE cases (225.15±11.89; 247.96±10.80) than in control group (308.47±13.59;

336.83±15.50) ($p<0.001$) respectively, however, disulphid level, disulfide /native thiol, disulfide /total thiol and native thiol/total thiol ratios were found to be similar between the groups ($p>0.05$). To the best of our knowledge, this is the first study to investigate TDH as a novel marker of oxidative stress in cows with SCE and animals. These results indicate that abnormal thiol/disulphide homeostasis may play a role in the pathogenetic mechanism of the SCE and also TDH may be a reliable indicator of oxidative stress in SCE.

Keywords: Cow, Infertility, Subclinical Endometritis, Thiol/disulphide.

Presentation Type: Oral Presentation

Hormonal, Ultrasonographic and Clinical Evaluation of the Effects of Aglepristone Used in Termination of Unwanted Pregnancies in Cats

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In this study, it was aimed to evaluate the success rate of aglepristone in the termination of unwanted pregnancies in 22-30-day pregnant cats and its effects on blood progesterone values with ultrasonographic and clinical findings. Twenty cats, in which pregnancy was determined by ultrasonography, were randomly divided into two groups. An experimental group was formed by administering aglepristone to the 1st group (n:15) twice at a dose of 15mg/kg at a 24-hour interval, and a control group was formed by administering the same dose of physiological saline solution at the same time to the 2nd group (n:5). The cats were checked for 15 days by clinical and ultrasonographic examinations. Progesterone measurements were performed by the RIA technique by taking blood samples from the control group every two days, from the experimental group every two days before the abortion and for three days consecutively after the abortion. 14 pregnancies in the experimental group resulted in abortion (94.4%), and 1 cat had a healthy birth. The plasma progesterone level during the abortion was high (21.46 ± 5.843 ng/ml), and the first statistically significant decrease in the progesterone level ($p<0.01$) occurred on Day 2 (14.45 ± 3.249 ng/ml) following the abortion. The cats showed normal estrus on days 13-18 after the abortion and became pregnant after mating. Consequently, it was concluded that aglepristone can be successfully used in the termination of unwanted pregnancies in 22-30-day pregnant cats, and it does not affect fertility adversely, and it is superior to the current protocols with its success rate when administered alone in the early period.

Keywords: Cat, Aglepristone, Termination, Pregnancies.

Presentation Type: Oral Presentation

Welding Technology and its Effects on Human, Environment and Food Chain

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The aim of this study is to indicate the types of welding technology and effect of welding types on the environment and feed to food chain. Welding is used extensively in various manufacturing industries including feed and food, medical products, machines and other constructions. Therefore, many things that people use in daily lives are welded or made by welded parts. Welding is a very common operation in many industries and workplaces Welding, is a manufacturing method used to join metal or thermoplastic materials with each other. It is widely used in the joining of metal materials. Welding is a joining process, wherein joining is produced by heating to suitable temperature with or without the use of filler metal. Many different sources of energy can be used for welding, such as gas flame, electric arc, laser, electron beam, friction, ultra sound waves. In industrial processes, welding can be carried out in many different environments such as open air, underwater, space. Some types of welding processes are Shielded Metal Arc Welding, Gas Metal Arc Welding, Gas Tungsten Arc Welding, Submerged Arc Welding, Plasma Arc Welding and Electric Arc Welding. The welding process involves a variety of hazards for human health and the environment, wherever it is made. It is necessary to take precautions against arc flames, electric shock, ultraviolet rays, toxic fumes and gases. Welding operators face various hazards resulting in adverse health effects specially on welders and even death. Air pollution due to welding leads to certain consequents on humans, environment and food. Welding can considerably cause air pollution. In all types of welding processes, fume and gases are formed as air pollutants. Welding can also cause heavy metal pollution in environment and affect animals, feeds and food chain of living organisms, cause toxicity and bioaccumulation.

Keywords: Welding Techniques, Environment, Food Chain.

Presentation Type: Oral Presentation

SESSION 3D

Time: 16:00-17:30

Optimization of Production Planning in Open Pit Mining

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The aim of this study is to develop a computer software to find a practical solution to the optimization problem of production planning and scheduling in open pit mining. One of the most important problems in open mining operations, especially in metal mining, is to prepare the short term production plan of the ore body within the open pit boundary where maximum profit will be obtained. Production amount, optimization of stripping amount to be made, adjusting the grade of the ore to be fed to the mineral processing plant and ensuring an uninterrupted ore supply, as well as providing an ore production plan that makes net present value the maximum. Due to the large number of parameters to be controlled, the solution of the problem is very complex. In this paper, reviews of recent studies have been investigated and results of this study have been presented.

Keywords: Open Pit Mining, Optimization, Mine Scheduling, Computer Programming.

Presentation Type: Oral Presentation

Experimental and Theoretical Evaluation of the Flow-Net in Non-Homogenous Soil

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Flow-nets are the conceptual representations of the flow-lines through the porous media. In this respect, the behavior of the flow-lines' is on the interest of soil scientists. Theoretical approaches like those suggested with Darcy equation are usually mathematical realization of the possible solutions for those flow-lines in the homogenous medium. However, in real experiments with non-homogenous soil samples, a lot of deviation from theoretical solutions may occur. Hence, an experimental approach is used in this study to evaluate the flow-net in a non-homogenous soil sample. The experimental apparatus is built using a 5 mm plexi-glass with 30×30×15 cm in dimensions and constant heads are used at upstream and downstream of an impermeable wall to produce hydraulic gradient. A sand with diameter ranging between 0.5 - 1 mm is used to simulate the non-homogeneity of the porous medium while food color is used to visualize the flow lines in the experiment. The flow-lines were tracked down by changes in their Cartesian coordinates through time. Later, theoretical projection of the flow-lines is done using try and error method considering the boundary conditions of Laplace equation. Then, polynomial equations are fitted to theoretical and experimental data to make a comparison. Results indicate to similarities between theoretical and experimental flow line trajectories. However, some deviations are also observed which are linked to the non-homogeneity of the selected soil sample.

Keywords: Experimental Study, Flow-Net, Polynomial Fit, Laplace Equation, Theoretical Study.

Presentation Type: Oral Presentation

Soil Improvement with Addition of Unburnt Tile Dust

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Due to our country is in the earthquake zone, subsoils under the buildings has gained great importance. Various improvement methods are used to prevent damages caused by soil. As in other sectors, the recycling of waste products is also increasing in construction technology day by day. In this study; it is tested whether the unburnt tile dust obtained as a waste product will provide improvement under laboratory conditions on soils having low bearing capacity. Unconfined compression tests are applied to the soil samples which their characteristic features determined by experimental studies in the geotechnical laboratory. Samples are prepared fresh and 7 days and 7 days samples are kept in vacuum to avoid water content lose. These samples are subjected to the same tests after 7 days. When the results of the experimental studies were examined, it was seen that 16% increase in the carrying capacity with addition of unburnt tile dust to soil up to 10%. It was observed that the samples which are kept for 7 days give better results than the fresh samples. It was also found that the used waste product dried the soil and reduced the saturation degree. The evaluation of the used waste product is one of the other positive results in terms of both environmental pollution and cost.

Keywords: Soil Improvement, Unburnt Tile Dust, Unconfined Compression Test.

Presentation Type: Oral Presentation

Optimization of Operation Parameters of Water Only Cyclone

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Water only cyclone (WOC) is a gravity concentrator which uses water as separating fluid. In this study, experiments were carried out for Soma lignite and effect of operation parameters were investigated. The test results show that feed density has a greatest effect on both clean coal yield and ash content. By using Water only cyclone, clean coal with approximately 12% ash and 36% coal yield produced. Since clean coal yield is lower than alternative methods, Water only cyclone can be used as a pre-enrichment process.

Keywords: Coal Beneficiation, Water Only Cyclone.

Presentation Type: Oral Presentation

Mechanical Response and Bond Strength of GFRP Rebar in PVA Fiber Reinforced Concrete

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Composite action of any reinforced concrete member is only possible if sufficient bond strength exists between steel reinforcing bars and concrete. This is called the bond strength of the adherence. The main aim of this research was to analyze the influence of PVA fibers on the bond behaviour of the helically-wrapped, the sand-coated and the ribbed glass fiber reinforced polymer (GFRP) rebars in concrete. In addition, the influence of PVA fibers on the compressive strength and impact resistance of concrete was also investigated. The results showed that the use of PVA fibers increased the bond strength between the GFRP rebars and the surrounded concrete. Moreover, when the surface was helically wrappped with Kevler strand, the effect of PVA fibers was much more pronounced.

Keywords: Glass Fiber Reinforcement Rebar, Bond Strength, Concrete, PVA Fiber.

Presentation Type: Oral Presentation

POSTER SESSION

Rational Use of Analgesics in Headache – Migraine Treatment

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Migraine is a headache that appears above all in the upper part of the head and can be chronic or acute, with episodic attacks that may be with aura or without aura. This study was undertaken to determine the extent of rational/irrational prescribing of analgesics in patients attending the neurologic out-patient department and to identify the most commonly implicated analgesics in the irrational treatment of migraine headache. This retrospective cross-sectional study was conducted during the period from January to October 2018 in the neurologic out-patient department of the Clinical Center in Tetovo. Patients of both sex and age who attended the neurologic out-patient department and were prescribed analgesics for treating migraine headache were included in the study. The data was compared against national guideline-based medicine. Ibuprofen and paracetamol (16.7%) are the most frequently prescribed analgesics in the treatment of migraine headaches, followed by aspirin (11.1%). The majority of analgesics (69.4%) were prescribed rationally and in accordance with the requirements of the national guidelines. The highest compliance of analgesics prescribed with the national guidelines is noted for ibuprofen (16.7%), while paracetamol as the first line drug recommended in treating migraine, in 5.5% of cases is irrationally prescribed. The combination of triptans with non-steroidal anti-inflammatory drugs in treating severe migraine attack cases appears to be rationally prescribed, sumatriptan combined with ibuprofen and paracetamol in 11.1% and zolmitriptan with diclofenac in 2.8% of cases. A more significant case of irrational prescribing is considered the prescribing of nimesulide in a pregnant woman in the first trimester of pregnancy. This study reinforces the need to implement strategies that promote rational use of analgesics in migraine headaches; the therapy should be individualized for each patient, safe but even cost-effective.

Keywords: Analgesics; Rational Use; Migraine Headache.

Presentation Type: Poster Presentation

Comparison of PD1$^+$ Regulatory T Cells Levels at Bone Marrow in New Diagnosis Multiple Myeloma and Idiopathic Thrombocytopenic Purpura Patients

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Multiple Myeloma (MM) is a plasma cell disease that comprises for about 10 % all hematological cancers. Numerous studies have shown an increase in the regulatory T cell count in peripheral blood and bone marrow of MM patients. Idiopathic thrombocytopenic purpura (ITP) is an immune-mediated bleeding disorder in which platelets are opsonized by autoantibodies and destroyed by an Fc receptor-mediated phagocytosis by the reticuloendothelial system within the spleen. Autoimmune processes are also considered in the pathogenesis of this disorder. $CD4^+CD25^+FoxP3^+$ regulatory T (Treg) cells and $CD8^+CD28^-$ Treg cells have roles in autoimmune diseases The programmed cell death protein-1 (PD-1) pathway stimulates the helper T cell population in the direction of regulatory T cell development. In our study, expression of PD1$^+$ regulatory T cells have determined in bone marrow specimen in MM and ITP patients. The study included 20 MM patients (12 females, 8 males, 45-75 years) who applied to hematology outpatient clinic and 10 controls (Idiopathic thrombocytopenic purpura (ITP), 7 females, 3 males, 40-81 years). ITP has been selected as control group which is a non-malignant hematological disease.

Mononuclear cells were isolated from 4 mL bone marrow samples from patients and control groups by using density gradient method. Mononuclear cells were stained with fluorescently labeled antibodies and regulatory T cell ratios were assessed by flow cytometry. $PD1^+$ regulatory cell ratio was found to be 0.3 - 5% in MM patients. $PD1^+$ regulatory cell ratio was found to be 0.01 – 3.5% in ITP patients. Our results are preliminary results of PD-1^+ regulatory T cell expression in MM patients. There are a limited number of studies in the literature showing the rate of PD-1 on regulatory T cells in bone marrow in MM patients. We think PD-1 expression of regulatory T cells in the bone marrow microenvironment may shed light on MM treatment.

Keywords: $PD1^+$ Regulatory Cell, Multiple Myeloma, Idiopathic Thrombocytopenic Purpura.

Presentation Type: Poster presentation

An Intelligent PD-FLC Controller Design Based on CNC Feed Drive Control Requirements

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The CNC milling process is considered to be either a specific environment from the aspect of tracking the contour of the movement, the moment of non-constant loading, the inertia of the masses, etc. We have assumed that the feed drive system is a system with very nonlinear working conditions due to different acceleration of masses. Nonlinearity is also caused by the material strength forces that are not constant due to of the material non-homogeneity, the surface consumption of the tool, the effects of not adequate temperature distribution from the cutting area, etc. The speed and the positioning accuracy of the feed drive depend from the power and torque delivered by the servomotor and the feed drive control algorithm. In order to improve the dynamic characteristic of the feed drive control loop and to overcome all these nonlinearities and difficulties during the system control, over the years have been used various PID based controllers but a perfect mathematical model is required to simulate. The idea of keeping the simplicity of the model needs the help of artificial intelligence implementation. The designing an optimal PD-FLC controller means searching for the optimal form of membership functions for generating adequate control action for feed drive system control. In this paper several simulations were simulated and comparisons were made between PID and PD-FLC controllers and PD-FLC_O, to demonstrate the advantages of the fuzzy logic optimal regulator.

Keywords: Fuzzy Control; Optimal; Feed Drive Control.

Presentation Type: Poster Presentation

Coumarin Derivatives Block Growth and Induce Apoptosis in Breast Cancer Cell

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Possible synergistic effect of doxorubicin (1μM) and coumarin derivatives (10-100 μM) was examined with aim to create an option treatment for breast cancer. Anti-breast cancer effect has been evaluated on the proliferation of MCF-7 breast cancer cells using MTT and alamarBlue assays. Cell viability was evaluated after 48h-treatment and the *ICs*50 of the coumarin derivatives were determined. The apoptotic effect was evaluated by detection of PARP cleavage and reduced activity of the survival kinase Akt. The results demonstrated dose-dependent activity, with a percent of growth inhibition after combination treatment being significantly higher than the one in the cell lines treated with doxorubicin and the synthesized coumarin derivatives alone. The *ICs*50 of the synthesized compounds significantly decreased in synergy with doxorubicin. Coumarin derivative having thiazole moiety with additional methyl groups attached to the carbons at positions 5 and 4 in the thiazole ring showed to be the most potent, with *IC*50 20 μM when administered alone and 10 μM in synergy with doxorubicin. The levels of phospho-Thr308 Akt were down-regulated by the combination treatment, pointing to inhibition of tyrosine kinase phosphorylation. In conclusion, the novel coumarin derivatives enhance the activity of doxorubicin. Further studies are needed to elucidate precisely the type of receptor involved in the activity and the mechanism of action.

Keywords: Coumarin Derivatives; Doxorubicin; Breast Cancer; MCF-7 Cells; Antiproliferative Effect.

Presentation Type: Poster Presentation

Development of Hydrophobic Surface Properties of Textile Polyesters by Sol-Gel Method

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In recent years, the usage areas of hydrophobic polyesters have increased due to their properties such as durability, wettability, breathability and dirt repellency. Generally, it is seen that hydrophobic surfaces are being developed by fluorochemicals, water-repellent agents, silicone- and paraffin-based water-repellants, aluminum and zirconium compounds. However, as these methods are harmful to human health and the environment, they have started to lose their attractiveness. Research has started to focus on nanoparticles such as silica since it does not show negative effects. According to the literature, nanotechnology and nanomaterials have begun to be of interest as hydrophobicity increases when particle size decreases. Since particle size can be controlled better, the sol-gel method was used in this study. The aim of this study is to increase the hydrophobicity by coating the silica nanoparticles synthesized by the sol-gel process on the polyester surface and observe the effect of parameters such as absorption conditions, temperature, and dispersant. The morphological structure of the silica nanoparticles and polyester fabrics are analyzed by Scanning Electron Microscope (SEM). Wettability of fabrics and chemical structure of the specimens are examined by contact angle analysis and FTIR, respectively. Results approve that the decrease of the particle size increases the hydrophobicity. On the other hand, agglomeration occurs while particle size decreased. Ongoing projects focused on homogeneous coating without agglomeration.

Keywords: Sol-Gel Method, Hydrophobicity, Polyester, Surface Modification.

Presentation Type: Poster Presentation

The Effects of Different Drying Methods on The Silica Nanoparticles

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Since natural silica mineral contains metallic impurities, it is not suitable for medical use and, to overcome this disadvantage, much work is being done on the artificial production of silica. In this study, Ludox AS-40 is used as synthetic silica resource and, has been dried using different drying methods to determine the best properties for reinforcing filler system for the silanization process. The effects of drying methods on the morphological and physical properties were studied using oven drying (OD), rotary evaporator (RE) and freeze-drying (FD). The grinding effect on the dried NSp was also evaluated. Grinding was performed mechanically with a conventional ball mill system. The features of the powders were evaluated using particle sizer, FE-SEM, BET, and tensiometer. The surface area of the silica nanoparticles was found to be OD <RE <FD. Contrary to expectations, the grinding process was not increased the surface area of NSp. This suggests that the particles are agglomerated as a result of the high surface energy of the silica particles and also the energy generated during the grinding process. The importance of wettability in this study is related to the silanization process. Better wettability means that the silanability of silica powders will be better. The particle size of the NSp's was also calculated using the equation ($p = 6000 / A_{BET}\rho$) with silica density of 2.2 g/cm^3. As a result of this calculation, it was found that the particle size of the silica particles was in the range of 20-30 nm. To determine the convenient drying method, various parameters such as drying time and applicability in the industry were also be taken into consideration. As a result, the most effective drying method was selected as RE. RE dried NSp will be used as reinforcing fillers in the restorative dental composites.

Keywords: Nano Silica, Drying Effect, Oven Drying, Rotary Evaporation, Lyophilization, Wettability.

Presentation Type: Poster Presentation

Effect of Different Cleaning Solutions on in Vitro Biocompatibility of Commercial Dental Implant

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Implant-related diseases and losses are related to implant material and surface modification properties. Besides, the methods that used in production are one of the most important factors. Different chemicals used in production processes such as acids, neutralizing solutions and roughening materials are possible risk factors. In particular, almost all commercial detergents used in surface cleaning can reason continuous contamination of the implant surface due to insufficient rinsing. In this study, the production stages of a commercial dental implant were examined and it was predicted that the cleaning process caused contamination on the implant surface. In this regard, XRD analysis was performed on the solid residue obtained by removing the alcohol components of the commercial detergent used in the washing process and information was obtained about the components. Elemental analysis of the dental implant surface was carried out with SEM-EDS, and P, S and K elements were obtained. This result is in parallel with the XRD data. In this way, it has been found that rinsing with pure water is not sufficient to remove the detergent. Surface cleaning processes were created with alcohol instead of detergent and applied for cleaning the dental implant. In surface cleaning processes with alcohol, experiments were carried out with organic substances which can evaporate at room temperature such as isopropyl alcohol, ethyl alcohol and acetone. For contamination examination, image and elemental analysis were performed on dental implant surface with SEM-EDS. In addition, cytotoxicity tests were performed with mouse osteoblast cell line to examine the in vitro effect of different cleaning solutions. Obtained results were evaluated and compared.

Keywords: Dental Implant, Different Cleaning Solutions, In Vitro Biocompatibility, SEM-EDS Analysis.

Presentation Type: Poster Presentation

Application of Vibrational Spectroscopy for Spectral Elucidation of 2-Aminopyridine Derivatives

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The pyridine derivatives have an important place among the heterocyclic compounds and has been the subject of many investigation. Among the heterocyclic compounds, 2-aminopyridines have drawn special attention, because of the various pharmacologically activities associated with the presence of it in different molecules. Aminopyridine derivatives are widely used in pharmacological and medical applications and have been used as drugs for different diseases. Aminopyridine derivatives are widely used for sensitive qualitative and quantitative analysis and as a reagents in analytical chemistry. The structural and vibrational properties of pyridine derivatives have been extensively studied and analyzed in recent years because of their involvement and applications in pharmaceutical, agro chemical and many other industries. In this work, we will report experimental study on vibrational structure elucidation of aminopyridine derivatives. The FT-IR- spectra of aminopyridines have been recorded in solid phase using ATR modul and IR-LD technic.

Keywords: Aminopyridine Derivatives, Spectral Vibrational Elucidation.

Presentation Type: Poster Presentation

The Knowledge and Opinions about Medical Cannabis among Community Pharmacists

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The earliest "surviving" documentation for cannabis usage are the ten-thousand-year-old dried cannabis flower examplars, according to archaeological findings. The written accounts of cannabis used as medicine originate in ancient China (4,700 years ago) which in turn show that this herb has been cultivated and used for many different reasons such as medicine, fiber and also abused for intoxication or to get "high". Nonetheless, till this day, there are still many arguments and doubts about using of medical cannabis among healthcare providers; even though they agree that it may have many benefits, they are somewhat doubtful because of the critical fact that it can be abused and they feel that it is their moral-duty to know all there is to know before feeling comfortable discussing it. Medical cannabis is currently legal in Republic of North Macedonia as of the year 2016. In the light of all this we developed an evaluation about the level of knowledge and opinions on medical cannabis among community pharmacists which is the main purpose of this study. From the results it is evident that further education of the community pharmacists with special emphasis on the therapeutic effects as well as the side effects of medical cannabis is indispensable.

Keywords: Medical Cannabis, Community pharmacists , Knowledge, Opinions, Evaluation.

Presentation Type: Poster presentation

Emotion Classification Using Multilinear Regression Method

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The Brain Computer Interface (BCI) systems allows the subjects control their environment with motor or cognitive modulation of their electrical brain acitivity. Multichannel EEG data taken from normal subjects who encountered pleasant and unpleasant pictures were classified with a multilinear regression algorithm. The results were compared with those of the Support Vector Machine (SVM) and proved to be better in accuracy.

Keywords: Tensors, Multilinear Regression Model, Brain Computer Interface Emotion Detection.

Presentation Type: Poster Presentation

Game Theory and Some Applications

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The Game theory is the mathematical study of strategic decision making in conflict situations. In the game theory, a single interaction is defined as a game, and those involved in decision-making are called players, who are assumed to act rationally. We will explore basic game theory ideas, including pay and score ideas; classification of games as sum zero or non-sum, types of strategies. The Game theory has many applications in subjects such as economics, international relations and politics, as well as psychology as it can be used to analyze and predict player behavior and decisions.

Keywords: Strategy, Zero Sum, Nash equilibrium.

Presentation Type: Poster Presentation