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4. Uluslararası Akdeniz
BİLİM VE MÜHENDİSLİK KONGRESİ
25-27 NİSAN 2019
ALANYA LONICERA RESORT & SPA HOTEL, ALANYA/TÜRKİYE

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4. Uluslararası Akdeniz BİLİM ve MÜHENDİSLİK KONGRESİ

Bildiri Kitabı

Editörler
Doç. Dr. Mustafa Özcanlı
Dr. Öğr. Üyesi Ahmet Çalık

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Conference Paper
Oral Presentation

Tribo Performance of Steel Fiber-Reinforced Polymer-Matrix Composites with Walnut Shell Dust

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Abstract

Polymer matrix composites used in systems where wear and friction occur, such as brake systems of vehicles, are called friction composites. These composites are desirable to be resistant to wear, friction and environmental conditions such as temperature and humidity. Therefore, friction composites are formed by the combination of many materials with different properties. In this study, four friction composite samples with varying amounts of walnut shell dust were designed and produced. The added walnut shell dust was balanced with the space filler material (barium sulfate) in the contents and the amount of the other ingredients was constant. Samples were produced by conventional dry mixing method. A special design friction tester was used to determine the wear and friction characterization of the samples using a gray cast iron disc. Friction tests were carried out according to TS 555 standards. Physical properties such as hardness and density of the samples were also calculated. According to the test results, all samples are compatible with the literature, applicable in industry and comply with the standards.

Keywords: Brake, Friction, Wear, Walnut shell dust

1. INTRODUCTION

When various additives are added to thermoset polymers in which the phenolic resin is used as a matrix, it is called friction composites. Polymer-based friction composites are widely used in friction brake systems of automobiles, rail vehicles, airplanes trucks, racing cars, and other vehicles [1]. Studies on fibers in friction composites have accelerated by the prohibition of asbestos. The literature survey revealed that there are a lot of studies investigating different kinds of fibers such as metallic, ceramic, organic [2–12]. Researchers have studied and tested various materials to improve the tribological properties of friction composites as well as matrix and fiber. Some of these materials include: walnut shell, cashew dust, hazelnut shell, calabrian pine dust, waste tire rubber, banana peel powder, periwinkle shell, sisal fiber, rice husk dust etc [13–26].

In the previous study [23], researchers studied wear response of walnut-shell-reinforced epoxy composites using a pin-on disc wear-testing machine. They claimed that addition of walnut shell as a filler in epoxy is effective in improving the wear resistance of composites. In the another previous study [27], Öktem and his co-workers used seventeen common dusts and two different dusts to produce the samples of the organic brake pads. The hazelnut/walnut dusts as friction modifiers were replaced with petrocoke dusts at two different contents (3.5 % and 7 %) in their study. They emphasized that hazelnut and walnut dusts can be used in friction composites effectively. Nitin and Singh [28] investigated mechanical behavior of walnut reinforced composite and reported that the density reduces with the increase of reinforcement of shell particles but density obtained is very suitable for light weight applications.

In this study, new types of friction composites have been designed and manufactured by adding walnut shell dust to steel fiber reinforced polymer matrix composites. In order to determine the tribological properties of the composites such as friction and wear, a special design friction tester was used. The physical properties of the composites were also determined. The results were compared with the walnut shell-free base sample.

2. MATERIALS AND METHOD

Literature survey were carried out for design the ingredient of friction composites used in this study. In addition, the properties of the materials were considered. Accordingly, phenolic resin as binder, steel fiber as fiber, alumina as abrasive, zinc powder and copper swarf as metallic chips, graphite as solid lubricant, barium sulfate as space filler and, cashew and walnut shell dust as friction modifiers were used. The content of composite samples and classification of

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materials are shown in Table 1.

Table 1 The ingredients of composites and classification of materials

Classification			Ingredient
Binder			Phenolic resin
Fiber			Steel fiber
Functional filler materials	Abrasive		Alumina
	Non-abrasive	Metallic additives	Zinc powder
			Copper swarf
		Solid lubricant	Graphite
Space filler material			Barium sulfate
Friction modifiers			Cashew
			Walnut shell dust

The weight content of the composite samples is shown in Table 2. The weight ratio of other materials except walnut shell dust and barium sulfate is constant for all samples. Parent composition; phenolic resin 20%, steel fiber 10%, alumina 8%, zinc powder 8%, copper swarf 5%, graphite 5%, and cashew 10% were added. The change in the ratio of walnut shell dust in the composite was balanced with the amount of barium sulfate. W_0, W_3, W_6 and W_9 are the codes of the samples. W represents the walnut shell dust and the sub-index represents the weight percentage of walnut shell dust in composite.

Table 2 % Weight content of ingredients in samples

	W_0	W_3	W_6	W_9
Walnut shell dust	0	3	6	9
Barium sulfate	34	31	28	25
Parent composition	66	66	66	66

All samples were manufactured by conventional dry mixing method. Firstly, the powders were weighed with a sensitive scale and placed in the mixing bowl and mixed for 10 minutes to obtain a homogeneous mixture. The mixture was subjected to a pressure of 8 MPa for 2 minutes at room temperature in the pre-forming process. The ultimate sample was obtained by applying a pressure of 10 MPa at 150 °C for 10 minutes in the hot pressing process.

Tribo performance of friction composites was evaluated by examining friction and wear. The special design friction tester was used for friction tests of composites. The tester device is fully computer controllable and comprises of data acquisition software. Thus, parameters such as rotational speed, braking force, torque and duration can be easily controlled. It was used the disk made of grey cast iron with a 280 mm diameter and a hardness of 116 HB, as a counterpart. As seen in Figure 1, composites were fitted in brake pad caliper assembly.

(a)

(b)

(c)

Figure 1: a) friction composite sample b) brake shoe c) friction test setup

Before the friction test, the samples were burnished to obtain at least %90 contact of pre-test status. Continuous friction process was applied for the main friction test. During this period, the speed was maintained at 6 m/s and applied load was 500 kPa. Sliding velocity, disc temperature, friction force, and applied pressure were recorded using a pc-based data acquisition system. The surface temperature of the brake disc was measured using a non-contacting infrared thermometer. The test duration is 10 minutes and the sliding distance is 3600 meters. Before and after testing, samples weighed using a scale with 10^{-4} g precision and thus weight losses and specific wear rate were determined.

Hardness of the specimens was measured by using Rockwell hardness tester. Density of the samples was calculated based on Archimedes principle. All tests were repeated five times and average values are presented.

3. RESULTS AND DISCUSSION

When evaluating the tribo performance of friction composites, parameters such as friction coefficient, wear rate and friction stability are taken into consideration. In terms of high braking performance, friction composites with high friction coefficient and low wear rate are preferred. Figure 2 shows the change in the friction coefficient of the composites per second during braking. The structure of the friction coefficient shows the formation of friction layers. The friction layers are formed by debris, which breaks down from the composite, by gathering around parts having relatively high hardness near the surface and re-bonding with the effect of temperature. The primary or secondary plates formed in this way provide a better adhesion between the disc and the composite and increase the friction coefficient. Too much fluctuation in friction coefficient graphs is undesirable. Fluctuations indicate low friction stability. In Figure 2, the W9-coded sample shows much fluctuations in the later stages of the test. W0 and W3 coded samples have a more stable structure. In theory, friction stability is calculated by the ratio of the average coefficient of friction to the maximum coefficient of friction obtained during the test.

Table 3 The average coefficient of friction of the samples

	W_0	W_3	W_6	W_9
Average coefficient of friction	0.424	0.452	0.431	0.414
Specific wear rate (cm^3/Nm)	1.32×10^{-6}	1.69×10^{-6}	1.79×10^{-6}	3.74×10^{-6}
Friction stability (%)	86.5	85.4	84.5	66.7
Weight loss (%)	0.04	0.05	0.05	0.12

The friction-wear properties of the samples obtained from the tests are summarized in Table 3. The average coefficient of friction is higher in W3-coded sample containing wt. 3% walnut shell dust. The specific wear rate, and the percentage of weight loss increased linearly with the content of walnut shell dust. In the same way, the increase in the content of walnut shell dust gradually decreased the friction stability.

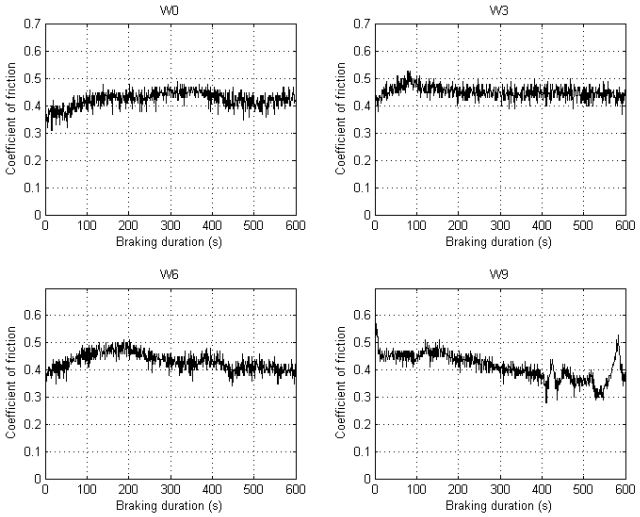


Figure 2: The friction coefficient variation per second for all samples

The friction between disc and composite during braking causes an increase in temperature in the interface. Rising temperature may cause materials in the composite content to be adversely affected. In particular, the high temperature can cause the resin to be cured and leaved from the composite. This abrasion is called ablativ wear. Therefore, it is desirable that the friction composites have a high thermal conductivity. Therefore, metallic chips, especially copper, are used in the content. Figure 3 shows the change of the temperature of the disc every second during the friction test. Accordingly, it is estimated that the amount of walnut shell dust in the content does not have a positive effect on the heat conduction of the composite.

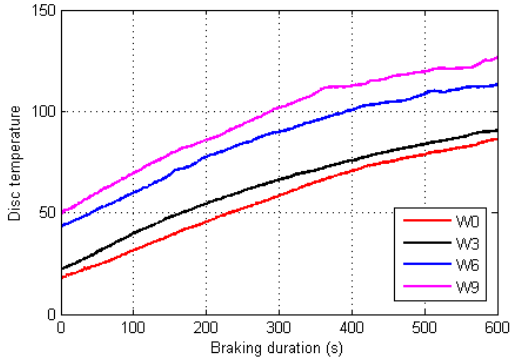


Figure 3: The disc temperature (°C) variation per second for all samples during the friction test

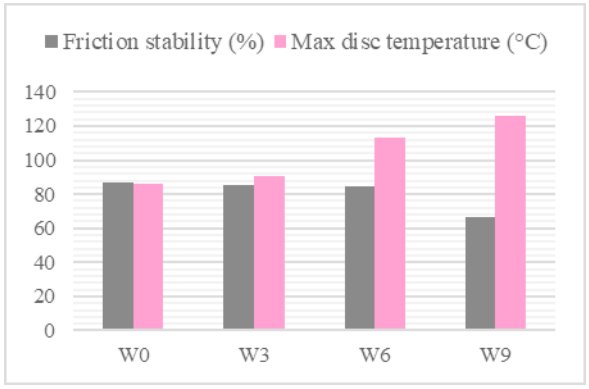
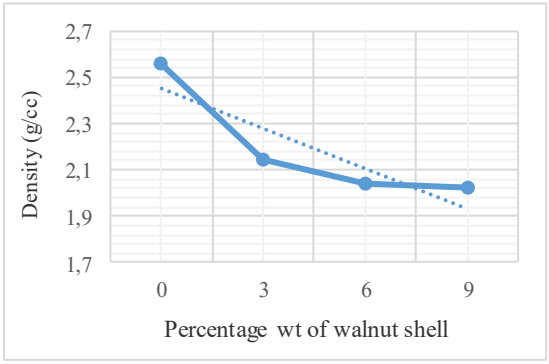


Figure 4: Friction stability of samples and maximum disc temperature



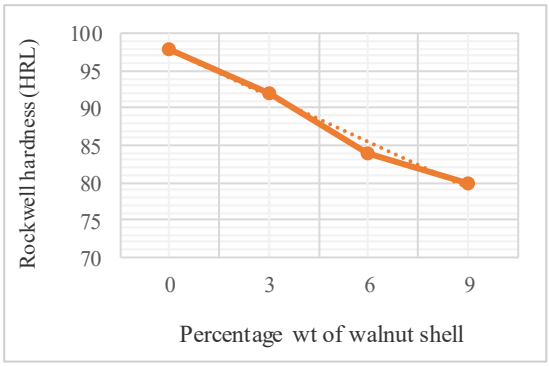


Figure 5: The density and hardness of the samples

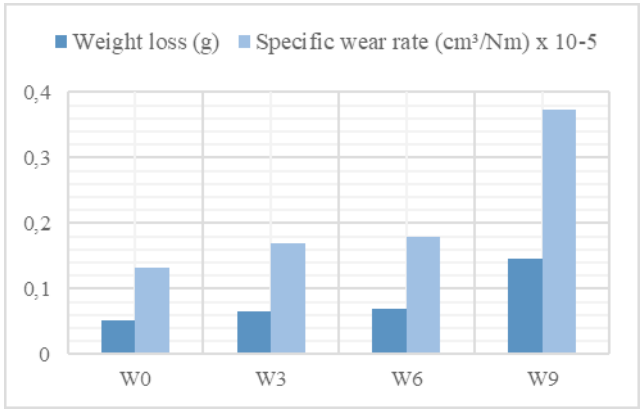


Figure 6: The wear parameters of the samples

Figure 4 shows that the friction stability of the samples is adversely affected by the increasing temperature value. In addition to friction properties, physical properties such as density and hardness were also examined. Figure 5 shows

the changes in the hardness and density values of the walnut shell content of the samples. Accordingly, walnut shell dust is estimated to be lighter than barium sulfate when it considered that the combination of walnut shell powder and barium sulfate. The relationship between hardness and density is consistent with the literature. Figure 6 clearly shows the specific wear rate and loss of weights of the samples.

4. CONCLUSIONS

In this study, the usability of walnut shell dust in brake friction composites was investigated experimentally. The results are summarized below:

- When classifying the materials used, the walnut shell dust was estimated to be friction modifier but the opposite effect was observed.
- In friction composites, walnut shell dust can be used only 3%. Otherwise, it affects the friction properties negatively.
- The friction stability of the samples containing walnut shell dust is lower than that of walnut shell powder-free sample.
- The specific wear rate and weight loss of the samples increased with the content of walnut shell dust.

5. ACKNOWLEDGEMENTS

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25 April 2019 (Thursday)

08:00		REGISTRATION
13:00		OPENING SPEECHES
13:45	**ROMANIA**	İnvited speakers DR. MARIANA NICULESCU
14:00	**BULGARIA**	İnvited speakers DR. EKATERINA BORISOVA
14:15		Tuning Curcumin Mediated Gold Nanoparticles/ Nanorods for Biomedical Applications Digambara Patra , Riham El Kurdi
14:30		A Comparison Among Foreign Seismic Codes and Turkish Standards From The Plastic Hinge's Point Hamidreza Dousti , Meral Begimgil
14:45		Modification of Microbial Community Caused by DC Voltage Application to Biological Treatment Abdelmajeed Adam , Maria Elektorowicz

Prof.Dr. Kadir AYDIN
Administrator of Cukurova Technology Zone

Prof. Dr. Ahmet PINARBAŞI
Rector of Alanya Alaaddin Keykubat University

15:00-15:15		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK	
		ROOM 1		ROOM 2		ROOM 3		ROOM 4		ROOM 5		ROOM 6		ROOM 7	
		Agricultural Engineering		**Chemical Engineering / Chemistry**		**Textile Engineering**		**Food Engineering**		**Materials & Mechanical Eng.**		**Mining & Geological Engineering**		**Mathematical / Statistics**	
15:15	152	152- Soya Ürününün Pazarlaması İle İlgili Faktörlerin İncelenmesi *Osman İnanç GÜNEY , Levent SANGÜN* -Agricultural Engineering	422	422- ENZİMLER ve DETERJANLARDA KULLANIMI *Ebru KOÇAK , Taşkın BAYRAKTAR* -Chemical Engineering / Chemistry	389	389- Electroless Plating of Silver Nanoparticles on Polyester Fabric and Washing Durability *Suat Çetiner , Şeyma Kanara* -Textile Engineering	286	286- Gıda İşleme Yöntemlerinin Biyoaktif Bileşikler Üzerine Etkisi *K. Cemek , Aysun Şener , M. Ümit Ünal* -Food Engineering	56	56- Bina Duvarlarındaki Isı Yalıtım Malzemelerinin Ses Yalıtımı Açısından Kullanılabilirliğinin İncelenmesi *Ahmet Fertelli* -Mechanical Engineering	37	37- Kömür Yataklarında Optimal Üretim Yönünün Bir JavaScript Programı ile Analizi *Tayfun Yusuf Yunsel* -Mining Engineering	165	165- Optimization of Warranty Period with Reliability Engineering Approaches *Mustafa Konuk , Selçuk Erkan , Emre Uslu* -Mathematical Engineering / Statistics
15:30	153	153- Soya üretimini artırmada etkili olan faktörlerin incelenmesi *Osman İnanç GÜNEY , Levent SANGÜN* -Agricultural Engineering	423	423- DETERJAN FORMÜLASYONLARINDA KULLANILAN POLİMERLER *Ebru KOÇAK , Taşkın BAYRAKTAR* -Chemical Engineering / Chemistry	390	390- The Fabrication of Electrically Conductive Textiles Containing PEDOT PSS / Silver Nanoparticles *Şeyma Kanara , Hidayet Köse , Suat Çetiner* -Textile Engineering	287	287- Meyve ve Sebzelerde Bulunan Bazı Enzimlerin Isıl İşlemlerle İnaktivasyonu *K. Cemek , Aysun Şener , M. Ümit Ünal* -Food Engineering	67	67- OPTIMUM ADHESIVE LAYER THICKNESS OF NANOADHESIVELY BONDED JOINTS *Kürşat Gültekin* -Structural Engineering	38	38- Anomaly Analysis in Gold Deposits by the Combination of Sequential Gaussian Simulation and *Tayfun Yusuf Yunsel* -Mining Engineering	323	323- Eşanlı Denklemler Modeli için Bazı Uyarlanabilir Optimal Tahmin Edicilerin Tanımlanması *Nimet Özbay , Selma Toker* -Mathematical Engineering / Statistics
15:45	398	398- Tütünde Kalite Islahını Belirleyen Seleksiyon Kriterleri *Nesrin Orcen , Zehra Kara* Türkçe-Agricultural Engineering	131	131- Nanoparticles synthesis for water treatment purposes *Özlem ERDEM* -Chemical Engineering / Chemistry	272	272- INVESTIGATION OF THE WATER VAPOR PERMEABILITY PROPERTIES OF DENIM FABRICS WOVEN *Mine Akgun , Gizem Kara* -Textile Engineering	404	404- Variation in quality traits of introduced ACSAD genotypes compared to local bread wheat cultivars in *Mohamed Ridha Aissaoui , Mohamed Fenni* -Food Engineering	13	13- Simultaneous growth of carbon nanotubes and metal oxide nanowires on nanostructured conducting *Selçuk Poyraz* -Materials Engineering	236	236- Sülfürik Asit (H2so4) Liçi İle Killerden Alüminyum Oksit Eldesi *Volkan Arslan* -Mining Engineering	322	322- İki Aşamalı Liu Tipi Tahmin Edici için Matematiksel Programlama Yaklaşımıyla Parametre Seçimi *Selma Toker , Nimet Özbay* -Mathematical Engineering / Statistics
16:00	147	147- Adana İlinde Soya Üretimi Yapan Çiftçilerin Sosyo Ekonomik Özellikleri *Levent Sangün , Osman İnanç Güney* -Agricultural Engineering	132	132- High precision hydrogen gas sensor doped with CuFeZn2O4 nanofiber *Özlem ERDEM , Ramazan ERDEM , Ali* -Chemical Engineering / Chemistry	273	273- EFFECT OF THE STRUCTURAL PROPERTIES OF WOVEN SHIRTING FABRICS ON WATER VAPOR *Ayça Gürarda , Mine Akgun , Gizem Kara* -Textile Engineering	281	281- Alyanak Kayısısından Pektinmetil Esteraz Enziminin Kısmi Saflaştırılması ve Termal İnaktivasyon *Aysun Şener , M. Ümit Ünal* -Food Engineering	14	14- Fullerene-like nanostructured metal chalcogenides' microwave energy-assisted preparation *Selçuk Poyraz* -Materials Engineering	246	246- Tectonic Setting of the Accretionary Units of the SE Anatolian Thrust Belt: Sedimentary and Petrological *Ahmet Can AKINCI , Nusret NURLU , Ulvi* -Geological Engineering	184	184- What should the topology of the Universe be? *Guzide Senel* -Other Topics
16:15	314	314- Mısır Üretimi Yapan Çiftçilerin Sosyo Ekonomik Özellikleri: Adana İli Örneği *Levent Sangün , Osman İnanç Güney* -Agricultural Engineering	331	331- Analysis and Recycling of Bleaching Earth Used for Vegetable Oil *Güray Kılınççeker , Mustafa Kemal Sangün , Sema* -Chemical Engineering / Chemistry	367	367- Kadife Kumaşlarda Soğuk Kasar Prosesinin Uygulanabilirliğinin Araştırılması *Betül İNCE , Yılmaz YILDIZ , Ayşe Betül OĞUL , On* -Textile Engineering	472	472- The Effect Synthetic Antioxidants on the Oxidative Stability of some Oils *Turkan Keceli Mutlu* -Food Engineering	33	33- An Amorphous B90Si10 Model from An Ab Initio Molecular Dynamics Study *Ayşegül Özlem Çetin , Murat Durandurdu* -Materials Engineering	247	247- Tectono-Stratigraphic Framework of Misis-Andirin Belt: New Observations from Andirin Region (K. Maraş - *Ahmet Can AKINCI , Ulvi Can ÜNLÜGENÇ , Nusret* -Geological Engineering	185	185- The Use of Genetic Algorithms on Soft Topology *Guzide Şenel* -Other Topics
16:30	265	265- Current Status and Management Strategies of Red Palm Weevil (Rhynchophorus ferruginеus (Olivier) *Okan Özgür , Hasan Deda Büyüköztürk* -Agricultural Engineering	357	357- Preparation and characterization of uv curable hybrid hard films by sol gel method *Ömer KESMEZ* -Chemical Engineering / Chemistry	291	291- Kasarlı ve kasarsız terbiye prosesleri ile üretilmiş pamuklu kumaşların performanslarının karşılaştırılması *Mert Kutgi , Belkıs Zervent Ünal* -Textile Engineering	284	284- Kayısının (Prunus armeniaca L.) Biyoaktif Özellikleri *V. Aykut Aksoy , Aysun Şener , M. Ümit Ünal* -Food Engineering	213	213- Yapıştırma Bağlantılarından Dijital Görüntü Korelasyonu (DIC) Tekniğiyle Kayma Sekil Değiştirme *Ali Sinan Dike , Murat Demir AYDIN* -Materials Engineering		#YOK *#YOK* #YOK	424	424- Application of the Enriched Finite Element Method to Predator-Prey Dynamics *Ali Sendur* -Other Topics
16:45	375	375- Impact of Data Update Frequency on the Accuracy of Low-cost GPS Speed Sensors *Mustafa Akkamis , Muharrem Keskin , Yunus Emre* -Agricultural Engineering	415	415- In vitro Metal Effects on the Gill Antioxidant System of Nile Tilapia *Gülüzar Atlı* -Other Topics	320	320- INVESTIGATION OF THE HUMIDITY SENSOR BEHAVIOR OF PEDOT:PSS COATED CONDUCTIVE *Suat Çetiner , Hidayet Köse* -Textile Engineering	148	148- Oxidative Status of Commonly Consumed Fish Species *Pınar Yerlikaya , Fahrettin Gökhun Tokay , Tuğçe S* -Food Engineering	101	101- MHD natural convection of nanofluid for an inclined cavity with an inner conductive hollow cylinder *Fatih Selimefendigil , Hakan Fehmi Öztop* -Mechanical Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK
17:00	400	400- CYTOLOGICAL CHARACTERIZATION OF TOBACCO PLANTLETS OBTAINED FROM ANDROGENIC HAPLOIDS *Nesrin ÖRÇEN* -Agricultural Engineering	416	416- Oxidative effects of imidacloprid, cadmium and their combination on Daphnia magna *Gülüzar Atlı , Yusuf Sevgiler* -Other Topics	157	157- Tekstil Atölyelerinde Çalışanların Demografik Özellikleri *Canberk Nisanoğlu , Faruk Karadağ , Levent Sang* -Textile Engineering	283	283- Bornova Misketi Üzümünden ß-Glikozidaz Enziminin İzolasyonu, Kısmi Saflaştırılması ve Bazı *V. Aykut Aksoy , Aysun Şener , M. Ümit Ünal* -Food Engineering	102	102- The effect on output power of photovoltaic panels with and without PCM at horizontal and vertical *Fatih BAYRAK , Hakan Fehmi Öztop , Gamze ERT* -Aerospace Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK
17:15	374	374- Assessing the Benefit of GNSS-Based Tractor Automatic Steering Systems in Sowing *Mustafa Topcueri , Muharrem Keskin , Yunus Emre* -Agricultural Engineering	461	461- YENİ Pd- VİC-DİOKSİM KOMPLEKSi SENTEZİ VE SÜPERKRİTİK CO2 DEPOZISYON YÖNTEMİYLE İLE PdHX *Saliha Baran , Fatma Ulusal , Bilgehan Güzel* -Chemical Engineering / Chemistry	144	144- Yaştan Yaşa Apre Aplikasyonunda Ortaya Çıkan Baş-Orta-Son Probleminin Çözümü İçin Sistem Geliştirme *Nurten Eylül Akbulut , Eray Akkuş , Savaş Çetin* -Textile Engineering	410	410- Ayçiçeği Yağında Yağ Asidi Kompozisyonunu Etkileyen Faktörler *Murat Reis Akkaya* -Food Engineering	477	477- ÇOK SERBESTLİK DERECELİ BİR MOBİL PLATFORM TASARIMI *Ercan Paçalı* -Mechanical Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK
17:30	146	146- Soya Üretiminde Etkili Olan Ekonomik Faktörlerin Belirlenmesi: Adana Örneği *Levent Sangün , Osman İnanç Güney* -Agricultural Engineering		#YOK *#YOK* #YOK	83	83- The Possibility of the Coloring of the 100% Cotton Fabrics via Marigold (Calendula officinalis) Natural Dye *Burcu SANCAR BEŞEN , Pınar PARLAKYİĞİT* -Textile Engineering	463	463- Food Antioxidants and their applications *Turkan Keceli Mutlu* -Food Engineering	164	164- Tek Katmanlı Kauçuk Burçlarda Kauçuk Sertlik Değişiminin Statik Katılıża Etkisinin Sonlu Elemanlar ile *Aylin Dova , İbrahim Cem Öncü* -Automotive Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK
17:45	470	470- COMPARISON OF SPRAY NOZZLES IN TERMS OF SPRAY COVERAGE AND DROP DISTRIBUTION *Bahadır Sayıncı , Bünyamin Demir , Nuri Açık* -Agricultural Engineering		#YOK *#YOK* #YOK	419	419- INVESTIGATION OF MOISTURE TRANSPORT PROPERTIES OF POLYESTER FABRICS WOVEN WITH *Suat Çetiner , Hidayet Köse* -Textile Engineering	464	464- Effects of Harvest Time on the Beylik Olive Oil Quality *Turkan Keceli Mutlu* -Food Engineering	245	245- KAUÇUK BURÇLARDA KAUÇUK (ELASTOMER) KALINLIK DEĞİŞİMİNİN STATİK KATILIK DEĞERLERİNE *Aylin Dova , İbrahim Cem Öncü* -Mechanical Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK
18:00		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK	282	282- Karalahanın (Brassica oleracea L. var. acephala) Biyoaktif Özellikleri *Aysun Şener , M. Ümit Ünal* -Food Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK

26 April 2019 (Friday)

Time	No.	ROOM 1 Mechanical Engineering	No.	ROOM 2 Aerospace Engineering	No.	ROOM 3 Materials & Mechanical Eng.	No.	ROOM 4 Automotive Engineering	No.	ROOM 5 Environmental Engineering	No.	ROOM 6 Materials Engineering	No.	ROOM 7 Mechanical Engineering
08:30	130	130- Structural and Mechanical Properties of TiNi Coatings Deposited With Magnetron Sputtering Method *Hikmet ÇİÇEK , Ozan Can AKAR , İhsan EFEOĞLU* -Mechanical Engineering	221	221- Farklı Cam Tiplerinin Örnek Bir Binanın Isıtma Yüküne Etkisinin Çevresel ve Ekonomik Açıdan *Doğan Burak Saydam , Coşkun Özalp , Ertaç Hür* -Aerospace Engineering	445	445- Development of a Double Multiple Stream Tube Model for Variable Pitch Darrieus Wind Turbines *Rıdvan Almaz , Alpaslan Turgut , Sercan Acarer , Zi* -Mechanical Engineering	263	263- Investigation of Stress and Displacement Distribution in Ultra High Strength Steel Car Chassis *Berkay Karaçor , Mustafa Özcanlı* -Automotive Engineering	109	109- Background sources and meteorological conditions of high PM10 concentrations in Istanbul, Turkey *Hakki Baltaci , Cagla Sinem Ozgen Alemdar , Bule* -Environmental Engineering	113	113- XAFS Tekniği ile Atomik koordinasyon sayısı ve Uzaklıkların Tespit Edilmesi *Osman Murat Özkendir* -Materials Engineering	241	241- Çekme Deneyinde Elastisite Modülü Hesap Yöntemleri ve Hata Kaynakları *Bülent Aydemir , Burak Samet Elmas , Esra Ayan* -Mechanical Engineering
08:45	149	149- Fabrication and Properties of Expanded Glass Particles in Metal Syntactic Foams *İsmail Cem Akgün , Çağın Bolat , Ali Gökşenli* -Mechanical Engineering	348	348- Hafif Bir Hava Aracının Hibrit İtki Sistem Tasarımı *Kadir AYDIN , Sinan KEİYİNCİ* -Aerospace Engineering	430	430- Effect of Post-Annealing on the Thermoelectric Material Prepared via Laser Floating Zone (LFZ) *Gizem Çetin , Bekir Özçelik* -Materials Engineering	455	455- Radyatörün Isı Transferi Performansının İyileştirilmesi Amacıyla Farklı Hava Yönlendiricisi *Ali K. Aşkadar , Metin Kemal Gökçe , Ahmet Cem Ö* -Automotive Engineering	368	368- Endüstriyel Atıksulardan Kurşun ve Kadmiyum Biyogiderimine Yönelik Bir Ön Çalışma *Aysel ALKAN UÇKUN , Miraç UÇKUN* -Environmental Engineering	122	122- Development and Design and Heat Treatment of Production, Storage and Mine Drilling Pipes in Petroleum *İsmail Topçu , Arda DEVRIM , Batuhan UNAL , Bilge V* -Materials Engineering	166	166- Endüstriyel Robotu Taşıyan Bir Kirişin Optimum Boyutlarının Sonlu Elemanlar Metodu ile Belirlenmesi *Ersin BERBEROĞLU , Erdi YILDIZ , Burak DEMİRT* -Mechanical Engineering
09:00	150	150- Machinability Study of Aluminum/Pumice Syntactic Foam Fabricated by Sandwich Infiltration *İsmail Cem Akgün , Çağın Bolat , Ali Gökşenli* -Mechanical Engineering	349	349- Mini-İHA'larda Kullanılan Yakıt Hücreli Hibrit Sistem İncelemesi *Sinan KEİYİNCİ , Kadir AYDIN* -Aerospace Engineering	441	441- The selection of electric motor for pendulum type amusement in fun-fairs *Fatih Güven* -Mechanical Engineering	89	89- On the Conceptual Design of a 6x6 Heavy-Duty Electric Truck: A Summary *Batuhan Kuleli , Mehmet Murat Topaç* -Automotive Engineering	181	181- The Importance of Big Data for Sustainable Eco-Innovation Management *Banu Özkeser* -Environmental Engineering	333	333- Rot Kollarının Havacılık Test Speklerine Uygunluğunun İncelenmesi *Yılmaz Yıldız , Mehmet Ziya Okur* -Materials Engineering	167	167- Yüksek Devirlerde Dönme Hızına Sahip Dairesel Testerenin Doğal Frekanslarının Belirlenmesi ve *Ersin BERBEROĞLU , Erdi YILDIZ , Burak DEMİRT* -Mechanical Engineering
09:15	68	68- SELECTIVE LASER MELTING APPLICATION IN ADHESIVELY BONDED JOINTS *Kürşat Gültekin* -Mechanical Engineering	315	315- A numerical investigation of bird strike on a simplified aircraft wing leading edge *Mehmet Seha Tatlıer* -Aerospace Engineering	436	436- Effect of Mold Temperature on Foaming Behavior Aesthetic Components With Chemical Foaming *İbrahim Badem , Samet Kelebek , Yunus Emre Boy* -Materials Engineering	163	163- Test System and Turbine Development for Generation of Electricity from IC Engine's Exhaust Gases *MURAT NURİ KUCAKLI , Melih OKUR* -Automotive Engineering	339	339- The Effect of Renewable Energy Sources in Eco-Entrepreneurship *Banu Özkeser* -Environmental Engineering	327	327- Filtre Üst Kapaklarında Nitril Kauçuk Conta Yerine, Biyobozunur Keçe Kullanımı *Mehmet Özdemir , Eylül Büşra Tapanyiğit* -Materials Engineering	9	9- Artificial Neural Networks Based Energy Evaluation and Life Cycle Cost Assessment of a Hydrogen *Ceyhun Yılmaz , İsmail Koyuncu , Murat Alcin* -Mechanical Engineering
09:30	176	176- Çekme Yüküne Maruz Yapıştırma Bağlantılarında Ağsız Yöntemle İki Boyutlu Gerilme Analizi *Murat Demir AYDIN , Goudarz GHANIZADEH HESA* -Mechanical Engineering	468	468- Drag Coefficient Reduction Studies on Ahmed Body: A Review *Mustafa Atakan Akar , Berk Vural , Ahmet Çalık , H* -Aerospace Engineering	438	438- Effect on PET Films Vacuum Thermoform Method with Wood Mould *Samet Kumluk , Mehmet Ayhan Şenol , Didem Özba* -Materials Engineering	251	251- Analysis of different combustion chamber models in hydrogen/diesel fueled CI engine *İlker Temizer , Ömer Cihan* -Automotive Engineering	353	353- Tekstil Endüstrisi Atıksularının Arıtılabilirliğinin İncelenmesi: Fenton Süreci Uygulaması *Selman TÜRKEŞ , Hakan GÜNEY , Bülent SARI , C* -Environmental Engineering	369	369- The Effect of Milling Time on the Properties of Nanostructured Biodegradable Zn-Ag Powders *İlker Emin DAĞ , Cengiz TEMİZ , Fikret YILMAZ , Barış* -Materials Engineering	10	10- Thermodynamic Performance Analysis of Vanadium Redox Flow Battery (VRFB) for Sustainable Energy *Ceyhun Yılmaz* -Mechanical Engineering
09:45	387	387- YÜKSEK BASINÇLI UÇAK MOTORLARININ FAN KANAT TİTREŞİMLERİNİN AZALTILMASI VE TESTLERİ *Ozan Kural , Rahmi Güçlü* -Mechanical Engineering	344	344- Determination of Plastic Zone Dimension in Front Of Crack For Ball Joint Housing with Respect to *İlyas Kaçar , Mert Arslan* -Mechanical Engineering	453	453- EPS LEVHALARA İNORGANİK KAPLAMA İLE YANMAZ ÖZELLİK KAZANDIRILMASI *Özlem Gündüz , Sinan Büyükbayram , Ege Karaden* -Materials Engineering	253	253- Combustion and emission analysis of the addition of hydrogen to canola oil methyl ester / diesel mixture *İlker Temizer , Ömer Cihan* -Automotive Engineering	350	350- Nitrobenzenin Sudan Giderilmesinde Havalandırmanın Etkisi *Olcayto KESKİNKAN , Bülent SARI , Hasan Kıvanç* -Environmental Engineering	123	123- Effect of CNT on Mechanical Properties of Ti-6AL-4V and Their Corrosion Behavior in NaCl Solution *İsmail Topçu* -Materials Engineering	452	452- Numerical Validations for In-line and Staggered Tube Banks *Muhammet Nasıf Kuru , Alper Yılmaz , Arif Emre Ak* -Mechanical Engineering
10:00	268	268- Tek Tesirli Bindirme Bağlantısının Çeki ve Eğilme Momenti Yükü Altındaki Yorulma Davranışı *Salih Akpınar* -Mechanical Engineering	456	456- İleri Beslemeli Yapay Sinir Ağları ile Ciro Tahminleme *Mehmet Fatih Akay , Mohamed Ballouch , Kerem Es* -Computer Engineering	406	406- Piezoelektrik Kuvvet Ölçme Cihazlarının Yapısı, Avantajları ve Kalibrasyonu *Bülent Aydemir , Esra Ayan , Burak Samet Elmas , I* -Mechanical Engineering	186	186- Topology Optimization of Clutch Drive Plate for Commercial Vehicles *Ozgur Erdogan* -Automotive Engineering	351	351- Sulu Çözeltilerden Ozonlama ile Reaktif Black 5 Giderimi *Hakan GÜNEY , Selman TÜRKEŞ , Bülent SARI , C* -Environmental Engineering	121	121- Investigation of mechanical properties of Al / Mg alloy hydrogen storage tanks produced by powder metallurgy *İsmail Topçu* -Materials Engineering	325	325- Lastikli Mafsallarda Yüzey Kaplama Sonrası Oluşan Kauçuk- Metal Ayrılmasını Önlemek Amacıyla Tasarım *Mehmet Ziya Okur , Funda Kuyumcu* -Mechanical Engineering
10:15-10:30		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK

Time	No.	ROOM 1 Energy Engineering	No.	ROOM 2 Agricultural Engineering	No.	ROOM 3 Physics Engineering	No.	ROOM 4 Automotive Engineering	No.	ROOM 5 Environmental Engineering	No.	ROOM 6 Materials Engineering	No.	ROOM 7 Mechanical Engineering
10:30	127	127- Experimental Partial Shading Analysis of Solar Photovoltaic (PV) Panels in Cukurova Region *Fırat EKİNCİ , Kemal AYGÜL , Burak ESENBOĞA* -Energy Engineering	3	3- Integration of solar thermal energy in greenhouse applications *Abderrahim BAZGAOU , Kabira EZZAERI , Hicham* -Agricultural Engineering	428	428- Low Temperature Thermoelectric Properties of Na and K-Doped Bi2Sr2Co2Oy Ceramics Prepared via LFZ *Gizem Çetin , Bekir Özçelik* -Materials Engineering	365	365- A new Transcritical CO2 Refrigeration System with Expander and Expansion Valve *Arif Emre Aktaş , Mehmet Tahir Erdinç , Alper Yıln* -Automotive Engineering	106	106- Effect of Monomer on the sensitivity of Molecular Imprinting Polymer System *Maimoona Yasinzai* -Environmental Engineering	475	475- Synthesis, Composition, and Structural Properties of Superconducting ß-FeSe *Mehmet GÜRSUL , Bekir ÖZÇELİK* -Materials Engineering	205	205- Renewable Energy And Employment *Eylem YILMAZ ULU* -Mechanical Engineering
10:45	7	7- Power Control Of Fuel Cell Connected To Power System *glaoui hachemi hachemi , dehini rachid rachid* -Energy Engineering	383	383- Effect of Supplemental Irrigation on Bread Wheat Production under Semi-arid Mediterranean Conditions *Mohamed Ridha Aissaoui , Mohamed Fenni* -Agricultural Engineering	293	293- STEM Education on Astronomy and Space Sciences for Primary Schools *Hatice Eren , Ebru Devlen* -Physics Engineering / Astrophysics / Physics	129	129- TORPİDO TRAVERSİ ÜZERİNDE BULUNAN PROJEKSİYON KAYNAK SOMUNLU BRAKETİN KAYNAK *Bircan Albak , Sinan Serdar Özkan , Nuri Akkaş* -Automotive Engineering	19	19- Semi-combustion of Municipal Waste Sludge and Agricultural Waste for Remediation of Agricultural *Yıldırım İsmail Tosun* -Environmental Engineering	328	328- Bal Peteği Kalıbı Tasarımı Kullanarak Kapak İmalat Proses Geliştirmesi *Mehmet Aslan , Şule Tufan* -Materials Engineering	206	206- Development of Geothermal Power Plants and Turkey's Geothermal Policy *Öner ATALAY , Eylem YILMAZ ULU* -Mechanical Engineering
11:00	12	12- Effect of temperature on heat and mass transfer in a desalination system *HAYAT EL BAAMRANI , LAHCEN BAMMOU , AHM* -Energy Engineering	262	262- Molecular Charecterization of Pest Red Palm Weevil [Rhynchophorus ferrugineus (Olivier) *Hasan Deda Büyüköztürk , Okan Özgür , Selçuk Ul* -Agricultural Engineering	60	60- THE PRELIMINARY ATMOSPHERIC PARAMETERS OF HD 154713 AND HD 137928 *Aslı Elmaslı , Şeyma Çalışkan , Kübraözge Ünal* -Physics Engineering / Astrophysics / Physics	264	264- Comparison of St-52 Steel and Ultra-High Strength Steel as a of Pipe Type Chassis Material for Formula *Berkay Karaçor , Mustafa Özcanlı , Mustafa Atakan* Türkçe-Automotive Engineering	160	160- Complete Nutrient Removal Using a Novel Submerged Membrane Electro–Bioreactor (SMEBR) *Abdelmajeed Adam , Maria Elektorowicz* -Environmental Engineering	225	225- Alüminyum 1050 Serisinde Tavlama İşlemlerinin Mekanik Özelliklere Etkisi *Sidem Kaner* -Materials Engineering	397	397- Estimation of annual energy production of coupled counter-rotating vertical-axis wind turbines in a semi- *Ferhat Cem Başer , İskender Kökey , Ziya Haktan K* -Mechanical Engineering
11:15	199	199- Energy Performance of Thermosyphon Heat Pipe Using Chloroform *Abdullah Yıldız , M. Ali Ersöz , Zeynep Çakın* -Energy Engineering	229	229- Etlik Piliçlerden Ön Başlatma Yemi Uygulamasının Büyüme Performansı, Bağırsak Histomorfolojik *Harun Kutay , Seyyed Naeim Saber , Nurten Toy , F* -Agricultural Engineering	114	114- XAFS Tekniği ile İkame Edilmiş Hafif Atomların Yer Tespiti *Osman Murat Özkendir* -Physics Engineering / Astrophysics / Physics	46	46- Ağır hizmet araçlarında kullanılan disk fren kaliper yuvasının yapısal analizi ve deneysel doğrulaması *İbrahim Can Güleryüz , Barış Yılmaz* -Automotive Engineering	18	18- Pelletization of Municipal Waste Sludge and Forest Biomass Waste for Remediation of Agricultural Fields *Yıldırım İsmail Tosun* -Environmental Engineering	90	90- Makine Tasarımında Malzeme Seçiminin İş Güvenliği Üzerindeki Etkisinin İncelenmesi *Sidem Kaner* -Materials Engineering	212	212- Turkey's Geothermal Energy Potential *Şengül Güven* -Mechanical Engineering
11:30	219	219- Experimental Energy Analysis of Water Source Heat Pump *Abdullah Yıldız , M. Ali Ersöz , Mehmet Karaarslan* -Energy Engineering	17	17- Effect of photovoltaic panels shade on growth and yield of tomato inside a canary type greenhouse *Kabira EZZAERI , Abderrahim BAZGAOU , Yacine E* -Agricultural Engineering	20	20- Structural analysis based on electrical furnace temperature of muttalin green mud used in roof tile *Hulya Kuru Mutlu* -Physics Engineering / Astrophysics / Physics	316	316- Experimental study of HVAC performance with different air vent quantities on commercial vehicles *Özgür Öztürk , Alperen Aksoy , Melih Şemsettin Aky* -Automotive Engineering		#YOK *#YOK* #YOK	125	125- Hardness, Density and Surface Properties of P/M Alumix-(431) –Fe Alloy Mixtures *Ayşe Nur Acar , Rasiha Nefise Mutlu , Abdul Kadir Ekşi* -Materials Engineering	214	214- The Importance of Thermal Insulation in Buildings *Ömer Altan Dombaycı , Şengül Güven* -Mechanical Engineering
11:45	82	82- Comparison of Zhao's and Durbin's Methods for Structural Dynamics *Sefa Yıldırım* -Mechanical Engineering	259	259- Biological Control of Aflatoxin Contamination in Corn Using a Biopesticide (Aspergillus flavus NRRL *Isılay Lavkor , Tahsin Ay , Suat Sobucovali , Isıl Var* -Agricultural Engineering	15	15- Excitation cross sections of hydrogen atoms at intermediate and high energies by proton impact under *Boumediene Lasri , Fatima Bouasria , Mohammed S* -Physics Engineering / Astrophysics / Physics	105	105- Evaluation of Performance and Emissions of Methanol–Gasoline Blends as Fuel in SI Engine *İlker Örs , Bahar Sayın Kul , Savaş Yelbey , Halil E* -Automotive Engineering		#YOK *#YOK* #YOK	126	126- Magnetization and Electrical Resistivity of Al-7xxx Alloys Manufacturing by Powder Metallurgy Method *Ayşe Nur Acar , Abdul Kadir Ekşi , Ahmet Ekicibil* -Materials Engineering	257	257- Seçici Lazer Ergitme Yöntemi ile Farklı İnşa Oryantasyonlarında Üretilen 316L Paslanmaz Çelik *İlyas Hacısalihoğlu , Gürkan Kaya , Fatih Yıldız* -Mechanical Engineering
12:00	244	244- Study of intake manifolds of an internal combustion engine: Comparison of intake manifold *Mehmet Can Bilen , Gökhan Tüccar* -Mechanical Engineering	50	50- Determination of potential aquaculture fields by evaluation of morphometric, hydrodynamic and *Muhammet Duman , Tarık İlhan , A.Hüsnü Eronat , E* -Aquaculture and Fisheries Engineering		#YOK *#YOK* #YOK	307	307- Arka Görüş Kamerası ile Görünürlük ve Konumlandırma Kriterleri *Pervin Çalışan , Fatma Sirkeci , Zeynep Şekersöz Y* -Automotive Engineering		#YOK *#YOK* #YOK	34	34- Amorphous Structure of Boron Carbide *Tevhide Ayça YILDIZ , Murat DURANDURDU* -Materials Engineering	217	217- Performance of CBN Inserts in CO2 Assisted Hard Turning of AISI 52100 Bearing Steel *Hüseyin Alp Çetindağ , Adem Çiçek , Necati Uçak* -Mechanical Engineering
		LUNCH		LUNCH		LUNCH		LUNCH		LUNCH		LUNCH		LUNCH

Time	No.	ROOM 1 Energy Engineering	No.	ROOM 2 Electrical and Electronics Engineering	No.	ROOM 3 Automotive / Industry	No.	ROOM 4 Chemical Engineering / Chemistry	No.	ROOM 5 Computer Engineering	No.	ROOM 6 Geological Engineering	No.	ROOM 7 Mechanical Engineering
13:00	39	39- Development and Thermodynamic Performance Analyses of Geothermal Energy Based Power Production *Fatih YILMAZ , Reşat SELBAŞ , Murat OZTURK* -Energy Engineering	93	93- Yeni Nesil Ödeme Sistemleri için Veri Güvenlik Modülü Tasarımı ve Gerçeklenmesi *Süleyman Kocatürk , Volkan Hekimoğlu , Mehmet F* -Electrical and Electronics Engineering	79	79- Otomotiv Gövde Güvenlik Bileşenlerinde 3. Nesil Sacların Kullanımı: Hafifletme, Mukavemet Artırma *Abdullah Yasin Bilici , Tansel BASARAN , İmren Öz* -Automotive Engineering	23	23- Malachite Green Adsorption on Prunus Dulcis (Almond) Shell: Isotherm and Thermodynamics Studies *Ali Rıza Kul , Hasan Elik , Nurhayat Atasoy , Adna* -Chemical Engineering / Chemistry	70	70- Real Time Application of Self Organizing Maps (SOM) and Neural Network (ANN) Algorithms for Credit *Ali TUNÇ* -Computer Engineering	177	177- Geochemical, Petrological Characteristics and Provenance of Distal Ash-Flow Tuffs In Kuzgun Formation *Nusret Nurlu , Sedat Türkmen , Ahmet Can Akıncı , Üm* -Geological Engineering	399	399- TASARIMSAL DEGİŞİKLİKLERLE KİNGPİN MUKAVEMETİNİN ARTTIRILMASI *Ali Sarı , Cihan Yıldırım* -Mechanical Engineering
13:15	40	40- Thermodynamic analyses of Integrated System with Hydrogen Production and Compression *Fatih YILMAZ , Murat OZTURK , Reşat SELBAŞ* -Energy Engineering	193	193- Negatif Çıkışlı Yüksek Kazançlı Luo Dönüştürücünün Denetiminde Tip -2 Sinirsel-Bulanık Denetleyicinin *Ö. Fatih KEÇECİOĞLU , Ahmet GANİ , Erdal KILIÇ* -Electrical and Electronics Engineering	80	80- TBF1050 Sacının Geri Esneme Davranışlarının U-Bükme Kalıbında Deneysel ve Simülasyon Yöntemi ile *Abdullah Yasin Bilici , Tansel Başaran , İmren Öztür* -Automotive Engineering	25	25- Malachite Green Adsorption on Prunus Dulcis (Almond) Shell: Kinetic Studies *Ali Rıza Kul , Hasan Elik , Nurhayat Atasoy , Adna* -Chemical Engineering / Chemistry	227	227- Büyük Veri Çözümlerinde Bulut-Tabanlı Performans Analizi *Burak Cem Kara , Yaşar Daşdemir* -Computer Engineering	347	347- Sismik Kırılma ve Aktif Kaynaklı Yüzey Dalgası Yöntemi (MASW) ile Dağdibi-Pozantı (Adana) Civarında Heyelan *Hatice KARAKILÇIK , Ulvi Can ÜNLÜGENÇ , Ahmet Ca* -Geological Engineering	345	345- An Optimization Method for Determination of Fracture Parameters for Circumferential Semi-Elliptical *İlyas Kaçar , Mert Arslan* -Mechanical Engineering
13:30	115	115- Comparison of Different Type Electrodes' Performances in Solar Assisted Hydrogen Production for *Başak Doğru Mert , Fırat Ekinci , Tuğçe Demirdelen* -Energy Engineering	195	195- Yükselten DA-DA Dönüştürücünün LQR Denetleyici Kullanılarak Optimal Denetimi *Ö.Fatih KEÇECİOĞLU , Erdal KILIÇ , Ahmet GANİ ,* -Electrical and Electronics Engineering	112	112- Dizel Enjektörlerinde Kurumlaşma Olgusunun Analizi *Alptekin Ergenç , Orkun Özener , Alper KAYA , Ve* -Automotive Engineering	311	311- Aspir yağı ile metakrilaksipropiltrimetoksisilan (MAS) dienofili ile hazırlanan reaktif sevrelticinin film *Gediz Uğuz , Satılmış Basan* -Chemical Engineering / Chemistry	228	228- Bulut Bilişim Üzerinden Akıllı Taşıma Sistemi *Levent Görken , Semih Güzel , Burak Cem Kara , Y* -Computer Engineering	200	200- Neotectonic and Morphosedimentary Profile of Ildır Bay and Current Seabed Structures in Aquaculture Areas *Tarık İlhan , Barış Akçalı* -Geological Engineering	332	332- Rotkollarında Farklı Boru Hammaddelerinin Yorulma Performansına Etkisi *Sami Gökberk Biçer , Ali Sarı , Mehmet Ziya Okur ,* -Mechanical Engineering
13:45	270	270- Güneş Enerji Destekli Bir Kurutucuda Kurutulan Patlıcanın (Solanum Melongena L.) Kuruma Hızı ve *Kamil Neyfel ÇERÇİ , Doğan Burak SAYDAM , Erta* -Energy Engineering	366	366- İletim Sisteminde FACTS Uygulamaları ve Güç Sisteminde Kararlılığa Etkileri *Halil İbrahim AYDINÖZ , Mete ÇUBUKÇU* -Electrical and Electronics Engineering	260	260- Gıda Sektörü Frigorifik Araç Kullanıcılarının Araç Tercihlerinin İncelenmesi (Müşteri Sesi Çalışması) / *Serkan SARI , Ceyhun KÜNEÇ* -Automotive Engineering	312	312- Aspir yağı ile 2,2,2 trifloroetilmetakrilat (TFEM) dienofili dienofili ile hazırlanan reaktif sevrelticinin film *Gediz Uğuz , Satılmış Basan* -Chemical Engineering / Chemistry	354	354- Akıllı Kart Teknolojisi Kullanarak Çad Cumhuriyeti için Alternatif Gümrük ve Vergi Ödeme Sistemi *Youssouf Ibrahim Djalal , Bilal Babayigit* -Computer Engineering	201	201- Origin and Tectonic Significance of Felsic Volcanic rocks of the Misis-Andırın Complex (Kahramanmaraş-Andırın) *Nusret Nurlu , Ahmet Can Akıncı* -Geological Engineering	329	329- Lastikli Mafsallarda Yüzey Kaplama Uygulaması *Funda Kuyumcu , Mehmet Ziya Okur* -Mechanical Engineering
14:00	393	393- YERALTI DOĞAL GAZ DEPOLAMA ALANLARININ STRATEJİK ÖNEMİNİN İNCELENMESİ *Hatice Karakılçık , Mehmet Karakılçık* -Energy Engineering	385	385- PCB Rectangle Patch Antenna Based Isopropyl Alcohol Sensor Design *Ayşegül KARATEPE , Oğuzhan AKGÖL , Muharre* -Electrical and Electronics Engineering	134	134- Alüminyum alaşımları ve ileri yüksek mukavemetli çelik kullanılarak yan kapı kirişinin modellenmesi, analizi *Zeynep Begüm Kurt , Kalender Efe Esen , Ahmet Y* -Automotive Engineering	174	174- Hydrogen generation from catalytic hydrolysis of sodium borohydride solution using Co-B/bentonite *İlker Kıpçak , Esin Kalpazan* -Chemical Engineering / Chemistry	299	299- On Malware Detection for Mobile Devices *Efnan SORA GUNAL* -Computer Engineering	248	248- A General Overview of Seismicity and Active Fault Systems in the Cukurova Region/ Southern Turkey *Ahmet Can AKINCI , Ulvi Can ÜNLÜGENÇ* -Geological Engineering	301	301- Delikli Bir Silindir Üzerindeki Akışkan Akışında Direncin İncelenmesi (Investigation of Drag for Fluid *Erhan FIRAT , Yahya Erkan AKANSU , Hüseyin AK* -Mechanical Engineering
14:15	300	300- Ship Fuel Consumption Prediction with Machine Learning *Tayfun Uyanik , Yasin Arslanoglu , Ozcan Kalender* -Energy Engineering	386	386- Determination of Ethanol Ratio in Wine with a PCB Monopole Antenna Based Sensor *Ayşegül KARATEPE , Şekip DALGAÇ , Oğuzhan A* -Electrical and Electronics Engineering	21	21- Analysis for Life Time With Alternative Material And Heat Treatment Effect For Utility Car Wheel Hubs *Tuğrul Soyusinmez , Onurcan Onur , Levent Sertbil* -Mechanical Engineering	235	235- Preparation of Co-B catalyst supported on Na-exchanged bentonite and its activity in hydrogen *İlker Kıpçak , Esin Kalpazan* -Chemical Engineering / Chemistry	298	298- Analysis of Features for Network Intrusion Detection Systems *Efnan SORA GUNAL* -Computer Engineering	249	249- Sedimentary and Stratigraphic Evidence for Changes from Transgressional to Regressional Deposition During Mid *Ulvi Can ÜNLÜGENÇ , Ahmet Can AKINCI , Hatice KAF* -Geological Engineering	340	340- Fracture Analysis of a Semi-Elliptical Surface Crack on Drag Link *İlyas Kaçar , Ozan Akkoyun , Alişan Araslı* -Mechanical Engineering
14:30	100	100- Renewable Energy Based Hydrogen Generation Model *Hakan Yavuz* -Energy Engineering	143	143- Workspace Management in Multi-Robotic Production Stations for Collision Avoidance *Mustafa Çakır , Cengiz Deniz* -Electrical and Electronics Engineering	16	16- Experimental Trials Fixture Gap on the Reference Diameter Effect for the Dynamic Balance Results *Tuğrul Soyusinmez , Oğuzcan Güzelipek , Tolga P* -Mechanical Engineering	76	76- Ion Imprinted Polymer based Artificial Receptors for Highly Sensitive and Selective detection of Arsenic (v) *Nazia Asghar , Maimoona Yasinzai , Ghulam Musta* -Chemical Engineering / Chemistry	443	443- Hibrit Bir Genetik Algoritma Yaklaşımı Kullanarak Araç Rotalama Probleminin Modellenmesi *Bilal BABAYİĞİT , Kadir YILDIZ* -Computer Engineering		#YOK *#YOK* #YOK	335	335- For Circumferential Semi-Elliptical Cracks an Optimization Method to Determine Fracture *İlyas Kaçar , Alişan Araslı* -Mechanical Engineering
14:45	479	479- Gölgeli ve Gölgesiz Alanlı Bir Güneş Havuzunun Sıcaklık Dağılımlarının Karşılaştırılması *Mehmet Karakılçık* -Energy Engineering	370	370- Investigation of Thermal Behavior of Lithium Ion Batteries under Different Loads *Ceyda BERBER , Alkan ALKAYA* -Electrical and Electronics Engineering	448	448- Thermodynamic analysis of Transcritical Organic Rankine cycle coupled with Vapor Compression Cycle *Mehmet Tahir Erdinç , Arif Emre Aktaş , Alper Yılma* -Automotive Engineering	377	377- Electrochemical exfoliation of graphite to produce high-yield multilayer graphene flakes *Mustafa EROĞLU , Esin VAROL* -Chemical Engineering / Chemistry	446	446- Advantages of Software Defined Networking Architecture in Campus Networks *İBİLOGLU Recep , YÜKSEL MEHMET ERKAN* -Computer Engineering		#YOK *#YOK* #YOK	135	135- Investigation of Mixed Convection Heat Transfer in Mini Channels Under Opposing Flow Condition *Eyüphan Manay , Bayram Şahin , Resul Önder Te* -Mechanical Engineering
15:00-15:15		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK		COFFEE BREAK

Time	No.	ROOM 1 Civil Engineering / Architecture	No.	ROOM 2 Electrical and Electronics Engineering	No.	ROOM 3 Health & Safety	No.	ROOM 4 Industrial Engineering	No.	ROOM 5 Computer Engineering	No.	ROOM 6 Mechanical Engineering	No.	ROOM 7 Biomedical / Bioengineering
15:15	107	107- Determination Of The Relationships Between Delay And Project Factors İn Turkish Construction *Ezgi Kazan , İsmail Cengiz Yılmaz* -Civil Engineering / Architecture	8	8- Improvement of power system stability by the fuel cell control *Dehini Rachid , Brahim Berbaoui* -Electrical and Electronics Engineering	304	304- Beton Santrallerinde İş Sağlığı Ve Güvenliği Uygulamaları *Özlem KUTBAY , Uğur Eşme , Mustafa Kemal KÜ* -Other Topics	226	226- RAMSAY PRODUCTIVITY MODELING SYSTEM and AN APPLICATION *Dursun Balkan* -Industrial Engineering	378	378- Easy Pig Script Generation Tool *Uğur Gürel , Özlem Örnek* -Computer Engineering	51	51- Low Speed Balancing Procedure of Spiral Rotors Used for Wastewater Purification *Ahmet Fatih AK , Atakan Sarıoglu , Murat Kara , Abdull* -Mechanical Engineering	292	292- The Effect of Fermantation Condition and Feeding on Biogas Production *Zekeriya Özer , İrfan Ruhi Uçar , Oğuz Yunus Sar* -Bioengineering
15:30	255	255- The Use of Recycle Solid Wastes as Mineral Filler in Hot Mixed Asphalt: An Environmentally Sustainable *Sezen COŞKUN , Rostam Ali ANWARİ , Mehmet S* -Civil Engineering / Architecture	49	49- ANALYSIS AND CONTROL OF SINGLE PHASE GRID CONNECTED MODULAR MULTILEVEL CONVERTER IN *Elif BEYHAN ÇERÇİ , Eyüp AKPINAR* -Electrical and Electronics Engineering	305	305- Seramik Üretiminde İş Sağlığı Ve Güvenliği Uygulamaları *Özlem KUTBAY , Uğur Eşme , Mustafa Kemal KÜLE* -Other Topics	338	338- Regresyon Analizi ile Belirlenen Parametrelerin Boru İşlem Süresine Etki Etmesi ve İşlem Sürelerinin *Ebru Aykut YILDIRIM* -Industrial Engineering	380	380- Büyük Veri Teknolojileri Kullanarak Web Günlük Dosyalarının Analizi *Uğur Gürel , Hatem Dumlu , Arman Atalar* -Computer Engineering	57	57- STUDY OF CORROSION AND MECHANICAL PROPERTIES OF WELDING WITH MASSIVE AND FLUX CORED WIRE IN *Yakup Uzun , Halim KOVACI , A. Fatih YETİM , Ayhan* -Mechanical Engineering	295	295- New Generation Bioreactor Design in Biogas Production *Emre Kara , Can Menekşeoğlu , Hakan Karakan ,* -Bioengineering
15:45	5	5- Investigation on Mechanical Behavior of Mortars Containing Aluminium Particles *Nihan Gülmez* -Civil Engineering / Architecture	197	197- VOLTAGE REGULATION ANALYSIS in ENERGY TRANSMISSION SYSTEMS using TCR-TSC SVC SYSTEMS *Ergin Kayar , H. Feza Carlak* -Electrical and Electronics Engineering	41	41- ERGONOMİNİN HASTANEDE ÇALIŞANLARIN VERİMLİLİĞİ ÜZERİNE ETKİLERİ *Hazel Kaf , Uğur Eşme , Mustafa Kemal Külekci , A* -Other Topics	88	88- Multi-criteria decision making framework for the sustainable risk assessment of supplier portfolio: an *Gözde Öztek , Mehmet Kabak* -Industrial Engineering	182	182- Insufficient Data Problem in Machine Learning Techniques: Grey System Theory Approach for Short *Hüseyin Fidan , Mehmet Erkan Yüksel* -Computer Engineering	140	140- The Vibration Analysis of Product Feed Pipe In Industrial Decanter Centrifuge *Ahmet Fatih AK , Gözde Sarı* -Mechanical Engineering	302	302- Production of the nano Particles by green methods and investigation of their biological performance *Çiğdem Sivri , Derya İzgi , Ömer Karpuz , Kadir G* -Bioengineering
16:00	6	6- Utilization of Waste Metal Shavings as Fine Aggregate in Mortars *Nihan Gülmez* -Civil Engineering / Architecture	382	382- Real Time Detection of the Distance and the Velocity of the Worker Who Operates the Warehouse *Enes Gönül* -Electrical and Electronics Engineering	303	303- Anestezi Çalışanlarında Meslek Hastalığı Risk Faktörleri *Hazel Kaf , Berdan Özkurt , Uğur Eşme , Mustafa K* -Other Topics	99	99- Determination of Loss Classification and Line Performance in Manufacturing Systems with Overall *Tuba Gür , Ebru Yılmaz* -Industrial Engineering	179	179- Recent Cluster Head Selection Functions on Wireless Sensor Networks *İpek Abasıkeleş-Turgut* -Computer Engineering	58	58- Effect of hydraulic torque converter part blades' intake and outlet angles on efficiency and torque curves *Billur Kaner , Kerem Asmaz* -Mechanical Engineering	77	77- Post-Crosslinked Alginate/Montmorillonite Composite Hydrogels for Methylene Blue Removal *Serap Hafızoğlu , Mehmet Murat Özmen* Türkçe-Bioengineering
16:15	371	371- DEMİRYOLU HEMZEMİN GEÇİTLERİNDE TRAFİĞİN ANALİZİ *Can Ahmet Aslantepe , Hayri Karakaya , Shuhratjo* -Civil Engineering / Architecture	69	69- Transmit Power Optimization in EH based Underlay Cognitive Radio Transmission *Muhammad Musab , Zain Ali , Muhammad Waqas* -Electrical and Electronics Engineering	42	42- TEHLİKELİ KİMYASALLARLA ÇALIŞANLARIN İŞ SAĞLIĞI VE GÜVENLİĞİ *Hazel Kaf , Uğur Eşme , Mustafa Kemal Külekci , A* -Other Topics	337	337- Korelasyon Analizinin Otomotiv Yönlendirme Elemanlarından Rotkolunun Alt Detay Parçasına *Ebru Aykut Yıldırım* -Industrial Engineering	294	294- Designing an Intrusion Detection System on Wireless Sensor Networks using Collection Tree Protocol *Çağlar Oflazoğlu , İpek Abasıkeleş-Turgut* -Computer Engineering	72	72- Investigation on impact resistance of Kevlar-49 reinforced steel structures *Ali Can YILMAZ , Özlem ERDEM* -Mechanical Engineering	391	391- Nanostructured Biomedical Co-Cr-Mo alloys: Surface Susceptibilities and Cellular Responses *Hakan Yilmazer , Özge Berrak Rencüzoğullari , Elif* -Bioengineering
16:30	86	86- İnşaat Sektöründe Konut Fiyatları ile Ekonomik Göstergeler Arasındaki İlişki: İstanbul Örneği *Serkan Aydınlı* -Civil Engineering / Architecture	198	198- IMPROVING THE POWER QUALITY BY REDUCING THE PROBLEMS DUE TO FLICKER AND HARMONIC *Fatih Berber , H. Feza Carlak* -Electrical and Electronics Engineering	43	43- GÜVENLİK KÜLTÜRÜNÜN İŞ KAZALARINI ÖNLENMESİNDEKİ ETKİSİ *Hazel Kaf , Uğur Eşme , Mustafa Kemal Külekci , A* -Other Topics	120	120- İki Aşamalı Yeşil Araç Rotalama Problemi *Önder Belgin* -Industrial Engineering	321	321- Development of A New Software for Resting Metabolic Rate Prediction Using Multilayer Perceptron *Ezgi Akça , Mehmet Fatih Akay , Müzda Irmak , Mus* -Computer Engineering	459	459- Solar Powered DBD Plasma Based Flight Assistance System for Improved Flight Stability and Aerodynamic *Hürrem AKBIYIK , Hakan YAVUZ* -Aerospace Engineering	59	59- Optical Spectroscopy for Skin Cancer Detection *Ekaterina Borisova , Petranka Troyanova* -Biomedical Engineering
16:45	85	85- Makro-Ekonomik Göstergeler ile İnşaat Malzeme Maliyet İndeksi Arasındaki İlişki *Serkan Aydınlı* -Civil Engineering / Architecture	78	78- An Optimization Framework for Economical Operation of RF Integrated Micro-Grids *Guftaar Ahmad Sardar Sidhu , Naveed Ahmad Kha* -Electrical and Electronics Engineering	187	187- Occupational diseases in bank employees *Merve Karaoğlu , İlker Sugözü* -Other Topics	317	317- SWARA-TOPSIS Bütünleşik Yöntemi ile Yeşil Tedarikçi Seçimi ve Yat Üretimi için Bir Uygulama *Mehmet Ali Taş , Serap Akcan* -Industrial Engineering	394	394- Detection of Chronic Kidney Disease by Feature Transformation *Arzu PARGAN , Efnan SORA GUNAL* -Computer Engineering	218	218- Investigating the noise generation of a compression ignition engine at different filters *Erinç Uludamar , Mustafa Özcanlı , Kerimcan Çelebi , K* -Mechanical Engineering	343	343- Bulmaca Video Oyunu Oynama Süresinin Stres ve Odaklanma Üzerindeki Etkilerinin Galvanik Deri Tepkisi *Serdar Gündoğdu , Ebru Apaydın Doğan , Evrim G* -Biomedical Engineering
17:00	431	431- BİLGİSAYAR OYUNLARININ PEYZAJ MİMARLIĞI ve ÇEVRE TASARIMI AÇISINDAN DEĞERLENDİRİLMESİ *Çağrı Ünal , Mustafa Atmaca* -Civil Engineering / Architecture	254	254- Axial Flux Permanent Magnet Motor Design and Optimization by Using Artificial Neural Networks *Tuğçe Talay , Kadir Erkan* -Electrical and Electronics Engineering	188	188- Occupational health and safety knowledge level of public employees *Merve Karaoğlu , İlker Sugözü* -Other Topics	237	237- Mobilya Endüstrisi Ürün Sevkiyat Sürecinde NIOSH Denklemi Kullanılarak Ergonomik Risk Analizi Yapılması *Osman Görez , Tamer Nargileci* -Industrial Engineering	136	136- Otomatik Veri Etiketleme ile Türkçe Varlık İsmi Tanıma *Mustafa Keskin , Banu Diri* -Computer Engineering	108	108- Estimation of Diesel Engine Vibration Level by Use of Adaptive Neuro-Fuzzy Inference System (ANFIS) *Erdi Tosun , Erinç Uludamar , Mustafa Özcanlı , Kadir* -Mechanical Engineering	74	74- Labor Induction by Extra-Amniotic Saline infusion after Previous Cesarean Section *Sajida Asghar , Saniya Naheed , Dure Shahwar* -Medicine/Medical Engineering
17:15	372	372- KARAYOLU ÜSTYAPISININ SONLU ELEMANLAR YÖNTEMİYLE ANALİZİ *Ahmet Metin Yazıcı , Elif Zeynep Koç , İrfan Pamuk ,* -Civil Engineering / Architecture	158	158- Image Encryption with Phase Retrieval *Abdurrahman HAZER , Remzi YILDIRIM* -Electrical and Electronics Engineering	189	189- Job stress in accounting employees *Merve Karaoğlu , İlker Sugözü* -Other Topics	444	444- Effects of Industry 4.0 on Supply Chain *Serap Kiremitci* -Industrial Engineering	207	207- Flappy Bird is NP-hard *Neşe Güneş* -Computer Engineering	22	22- EFFECT OF WAITING TIME ON MOLTEN ALUMINIUM ALLOYS IN REGARDS TO BI-FILM AND OXIDE AREA *Hasan Yıldız , Buğrahan Erdoğdu* -Mechanical Engineering	209	209- Total kalça artroplastisinin aydınlatılmış onamında daha etkin bilgilendirme yöntemi: Dinamik görsel *Alican Barış* -Medicine/Medical Engineering
17:30	73	73- Kevlar-49 lif katkısının betonun çekme dayanımına etkisi *Ali Can YILMAZ , Özlem ERDEM , Ahmet YÜCEL* -Mechanical Engineering	194	194- Asenkron Motor Sürücünün Vektör Kontrolünde Yapay Sinir Ağlarının DSP Esaslı Uygulaması *Erdal KILIÇ , H.Rıza ÖZÇALIK , Ö.Fatih KEÇECİO* -Electrical and Electronics Engineering	318	318- Estimation of safe work behavior of seafarers using Artificial Neural Networks *Gizem Elidolu , Tayfun Uyanik , Yasin Arslanoglu* -Ocean Engineering		#YOK *#YOK* #YOK	238	238- Gesture Analysis and Recognition Based on Mems Sensors *Sevda Aydoğan , Yavuz Şenol* -Other Topics	458	458- The Effect of Different Suspension Models on the Road Handling and Ride Quality of a Coach Bus *Özgür Ünsal , Hakan Yavuz* -Automotive Engineering		#YOK *#YOK* #YOK
17:45		#YOK *#YOK* #YOK	440	440- Getting the Depth Data of the Scene for Discovering the Unknown Indoor Environments and *Enes Gönül* -Electrical and Electronics Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK

27 April 2019 (Saturday)

	ROOM 1		ROOM 2		ROOM 3		ROOM 4		ROOM 5		ROOM 6		ROOM 7	
	Textile Engineering		**Automotive Engineering**		**Computer & Electronic Engineering**		**Physics Engineering / Astrophysics / Physics**		**Mechanical Engineering**		**Automotive Engineering**		**Automotive Engineering**	
08:30	183	183- Yara Örtüsü Amaçlı Bazı Tekstil Üretim Sistemleri Üzerine Bir Calısma *Ramazan ERDEM , Özlem ERDEM* -Textile Engineering	62	62- A comparison study on hydrogen as a fuel in vehicles *Adem Ugurlu* -Automotive Engineering	313	313- SAP Sistemleri Entegrasyonlarında Jenerik Yöntemler *Sinan Köğçe , Kağan Özdemir , Alper Karabulut , M* -Computer Engineering	296	296- Daily performance of evacuated tube solar collectors for domestic heating applications *, Ayhan Atiz , Mehmet Karakilcik* -Physics Engineering / Astrophysics / Physics	66	66- Meslek Yüksekokullarında Yangın Güvenliği *Taner Karasoy , Kerem Asmaz* -Mechanical Engineering	172	172- Manufacturing Methods of Polymer Matrix Composites: A Brief Review of Techniques Convenient for *Şafak YILDIZHAN , Mustafa Atakan AKAR , Mustafa Ö* -Materials Engineering	466	466- Ag-Ti-Cu/Kordiyerit Katalizör Üretimi ve Karakterizasyon Analizi *Mustafa Atakan Akar , Zeycan Keskin* -Automotive Engineering
08:45	180	180- Türkiye'nin Hazır Giyim ve Konfeksiyon Sektörü İhracat Performansının 10 Yıllık Değerlendirmesi *Gamze KILIÇ , Füsun DOBA KADEM* -Textile Engineering	63	63- Evaluation of hydrogen as a refrigerant for cooling purposes *Adem Ugurlu* -Automotive Engineering	405	405- Investigation of Diamagnetic Levitation for Dynamic MEMS Devices *Mustafa İlker Beyaz* -Electrical and Electronics Engineering	297	297- Power generation with integrated parabolic trough solar collectors based on solar energy and a *Ayhan Atiz , Hatice Karakilcik , Mehmet Karakilci* -Physics Engineering / Astrophysics / Physics	92	92- Tek Kademeli Bindirme Bağlantıda Bindirme Uzunluğunun ve Malzeme Kalınlığının Hasar Yüküne *Salih Akpinar* -Mechanical Engineering	435	435- Analysis and Optimization of Fuel Cell Vehicle Chassis *Abdulkadir Yasar* -Automotive Engineering	467	467- Ag-Cu-Nb/Kordiyerit HC-SCR Katalizör Üretimi ve Analizi *Mustafa Atakan Akar , Zeycan Keskin* -Automotive Engineering
09:00	359	359- Investigation of the Possibilities of Usage Recycled Textile Fibers and Sawdust in Composite *Sait YILDNÜ , Belkıs ZERVENT ÜNAL , Mustafa* -Textile Engineering	64	64- A novel technique to decrease cooling load in liquid hydrogen powered vehicles *Adem Ugurlu* -Automotive Engineering	407	407- Development of A New Software for Resting Metabolic Rate Prediction Using Multilayer Perceptron *Ezgi Akça , Mehmet Fatih Akay , Müzda Irmak , Mu* -Computer Engineering	309	309- METAMATERIAL SENSOR APPLICATION FOR CONCRETE MATERIAL *Şekip Dalgaç , Muharrem Karaaslan , Mehmet Ba* -Physics Engineering / Astrophysics / Physics	91	91- Yapıştırıcıyla Birleştirilmiş Tek Kademeli Bindirme Bağlantısının Deneysel ve Nümerik Sonuçlarının *Salih Akpinar* -Mechanical Engineering	96	96- The Fabrication, Characterization and Friction Assessment of Powder Palm Seed Added Composites *Banu Sugözü , Sudhan Raj Jeganmohan* -Automotive Engineering	432	432- Addition of hydrogen into LPG reductant in SCR system with Ag-Ti-Cu/Al2O3 catalyst *Himmet ÖZARSLAN , Ali Cem YAKARYILMAZ , Ta* -Automotive Engineering
09:15	156	156- Tekstil Atölyelerindeki Çalışan Personelin İş Güvenliği Bilincinin Tespiti *Canberk Nisanoğlu , Faruk Karadağ , Levent Sanç* -Textile Engineering	336	336- AHMED BODY DRAG REDUCTION BY USAGE OF DIMPLED AND BUMPED SURFACE *Mustafa Atakan Akar , Veli Kemal Aydın , Oguz Ba* -Automotive Engineering	421	421- A Statistical approach for the location of the failure in a medium voltage XLPE cable using partial *Fatih Serttaş , Fatih Onur Hocaoğlu* -Electrical and Electronics Engineering	310	310- CHARACTERIZATION STUDY BASED CHIRAL METAMATERIAL *Şekip Dalgaç , Muharrem Karaaslan , Mehmet Bak* -Physics Engineering / Astrophysics / Physics	1	1- Salınımlı Düşey Levhadan Isı Transferinin Deneysel İncelenmesi *Selma Akcay , Ünal Akdağ , Hakan Palancıoğlu* -Mechanical Engineering	97	97- Tribo Performance of Steel Fiber-Reinforced Polymer-Matrix Composites with Walnut Shell Dust *Banu Sugözü* -Automotive Engineering	454	454- Nanopartikül Katkılı Karbon Elyaf Epoksi Boruların Isıl Özelliklerine Hidrotermal Yaslandırmanın Etkisi *MEMDUH KARA , BENGİ ŞANLI , ALPER GÜNÖ* -Mechanical Engineering
09:30	402	402- Kumaş Hatalarına Uygun Olarak Geliştirilmiş Özel Pastal Tiplerinin Tanımlanması/Identification of Special *Mehmet Küçük , Meral İşler , Mücella Güner , Nu* -Textile Engineering	324	324- Variation of Spark Plug and Spark Gap Size with Hydrogen and Ethanol Added Gasoline Fuel: *Oguz Bas , Mustafa Atakan Akar , Hasan Serin , M* -Automotive Engineering	439	439- Investigation of Metamaterial Influence to Patch Antenna Characteristics *Hatice Onal , Emin Unal , Darius Kybartas , Muhar* -Electrical and Electronics Engineering	363	363- Hava Araçlarında Kullanılan Jet Motorunun Modellenmesi ve Kazanc Ayarlama Yöntemiyle Yakıt *Olcay Karadeniz , Ş. Naci Engin* -Aerospace Engineering	342	342- Applications of Shear Thickening Fluids (STFs) and Preparation : A Review *Mustafa Atakan Akar , Ayperi Tugce Yildirim , Ahm* -Mechanical Engineering	98	98- Determination of Friction-Wear Properties of Boric Acid and Pinus Brutia Cone Dust Added Friction *Banu Sugözü , İlker Sugözü* -Automotive Engineering	409	409- Performance Assessment of a Diesel Engine Fueled with Diesel and Microalgae Biodiesel *Bengi GÖZMEN ŞANLI , Mustafa Özcanlı , Hasan* -Mechanical Engineering
09:45	216	216- AKILLI SPOR GİYİM ÜRÜNLERİNDEKİ SON GELİSMELER - RECENT DEVELOPMENTS IN SMART *Özlem Kurtoğlu Necef* -Textile Engineering	220	220- Binalar Etrafındaki Akışın Sayısal İncelenmesi *Coşkun Özalp , Mustafa Söyler* -Energy Engineering	403	403- Forecasting of Electricity Load Demand of a Small Region by Using NAR Neural Network Model *Emre Akarslan , Fatih Onur Hocaoğlu* -Electrical and Electronics Engineering	215	215- Physical Properties of CoPt Magnetic Core-Shell Nanoparticles *Dogan Kaya , Idris Adanur , Mustafa Akyol , Faru* -Physics Engineering / Astrophysics / Physics	457	457- Türkiye'de Kurulu Rüzgâr Türbinlerinin Bölgesel Analizi *Mehmet Bilgili , Hakan Alphan* -Mechanical Engineering	104	104- A Study on the Performance and Exhaust Emissions of an SI Engine Fueled with Gasoline-Ethanol Blends *Savaş Yelbey , Murat Ciniviz* -Automotive Engineering	401	401- Mersin İli Mut İlçesinde 10 MW Kapasiteli Güneş Kulesi Tasarımı ve Enerji-Ekserji Analizi *Bengi GÖZMEN ŞANLI , Elif TURNA DİLSEL* -Mechanical Engineering
10:00	178	178- The reliability of subjective assessment in the determination of pilling resistance of knitted fabrics *Abdurrahman Telli* -Textile Engineering	222	222- Örnek Bir Binanın Farklı Yapı ve Isı Yalıtım Malzemeleri Kullanılarak Optimum Isı Yalıtım *Doğan Burak Saydam , Coşkun Özalp , Ertaç Hürc* -Energy Engineering	111	111- Silindir Ekran İçin Elektromanyetik Alan Ekranlama Etkinliğinin Çözümlenmesi (Analysis of *Niyazi İL , Şükrü ÖZEN , Kayhan ATEŞ , Hamza Fe* -Electrical and Electronics Engineering		#YOK *#YOK* #YOK	433	433- Türkiye'deki Kurulu Rüzgar Türbinlerinin Potansiyel Görünürlük ve Teknolojik Gelisimi *Mehmet Bilgili , Hakan Alphan* -Mechanical Engineering	137	137- Using of Artificial Neural Network (ANN) Method to Predict Cold Flow Properties of Biodiesel-Diesel Fuel *Erdi Tosun , Ceyla Özgür* -Automotive Engineering	426	426- Influence of Ag based catalyst structure in SCR system with using of hydrocarbon reductant *Ali KESKİN , Mehmet KILIÇ , İbrahim Aslan REŞİ* -Automotive Engineering
10:15		#YOK *#YOK* #YOK	471	471- Analysis of Wear and Friction Using ANSYS of Brake Pad Added Cashew and Ulexit *Mustafa Atakan AKAR , İlker Sugözü , Gökhan Bil* -Automotive Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK	84	84- Design and Impedance Control of a Series Elastic Actuator for Rehabilitation Robots *Yıldırım Ülger* -Mechanical Engineering	173	173- A Review on Open Mold Techniques for Polymer Matrix Composite Products *Hasan SERİN , Osman Barış DERİCİ , Şafak YILDIZH* -Materials Engineering	427	427- Production and Characterization of Ag-Cu Based Catalyst for SCR System *Ali KESKİN , Abdulkadir YAŞAR , Himmet ÖZARS* -Automotive Engineering
10:30		#YOK *#YOK* #YOK	474	474- CHARACTERIZATION OF SCR CATALYST BASED Ti-Ce-Cu *Hakan Hanna Çalışkan , Himmet Özarslan , Ali Kes* -Automotive Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK	269	269- Elmanın (Malus Communis) İnce Tabaka Kuruma Karakteristiğinin Matematiksel Modellenmesi *Doğan Burak SAYDAM , Kamil Neyfel ÇERÇİ , Ert* -Energy Engineering	476	476- Evaluation of a humidification-dehumidification desalination system for fresh water and hydrogen *Ertaç HÜRDOĞAN , Osman KARA* -Mechanical Engineering	469	469- Investigating the noise generation of a compression ignition engine at different filters *Kerimcan Çelebi* -Mechanical Engineering
10:45		#YOK *#YOK* #YOK	465	465- Hibrit Araçlarda Kullanılan Plastik Koruma Ekipmanlarının, Tasarım Revizyonları ile Meydana *Fırat Süle , Burak Balıbaş , Fatih Yıldırım , Şeyma* -Automotive Engineering		#YOK *#YOK* #YOK		#YOK *#YOK* #YOK	71	71- Performance evaluation of a refrigeration system using nanofluid *Ali Can YILMAZ* -Mechanical Engineering		#YOK *#YOK* #YOK	478	478- Production and Evaluation of Ti-Mo-Cu Based SCR Catalyst *Hakan Hanna Çalışkan , Ali Keskin , Himmet Özars* -Automotive Engineering
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4. ULUSLARARASI AKDENİZ
BİLİM VE MÜHENDİSLİK KONGRESİ
25-27 NİSAN 2019
ALANYA LONICERA RESORT & SPA HOTEL, ANTALYA/TÜRKİYE

Banu SUGÖZÜ

has participated in the "**4th International Mediterranean Science and Engineering Congress**"

which has been held in Alanya, Turkey on April 25-27, 2019.

Assoc. Prof. Dr. Mustafa Özcanlı
Congress Co-Chairman

Assoc. Prof. Dr. Hasan Serin
Congress Co-Chairman