



8<sup>TH</sup>  
INTERNATIONAL  
ADVANCED TECHNOLOGIES  
SYMPOSIUM

MANUFACTURING TECHNOLOGIES

| 19.10.2017 THURSDAY/PERŞEMBE |                             |  |             |   |
|------------------------------|-----------------------------|--|-------------|---|
| MANUFACTURING TECHNOLOGIES   |                             |  |             |   |
|                              | HALL-K                      |  | HALL-L      |   |
|                              | ID No                       | ARTICLE TITLE  |             | ARTICLE TITLE   |
| CHAIR                        | Prof. Dr. Vedat SAVAŞ       |  | CHAIR       | Prof. Dr. Ahmet HAŞÇALIK  |
| 13.30-13.45                  | 47                          | Optimization of linear consecutive-k-out-of-n system under stress-strength model<br><b>Yunus Güral*</b>  | 147         | Investigation of Turning in Different Cutting Parameters of Al 6061 with Finite Elements Method<br><b>Yahya Hışman Çelik*, Cihat Türkan, Cebeli Özek</b>                    |
| 13.45-14.00                  | 249                         | Design of a Multi-Link Steering Mechanism for a Passenger Bus<br><b>Mehmet Topaç*, Merve Karaca, Uğur Deryal, Mert Atak</b>  | 748         | Optimization of Cutting Parameters to Obtain Optimum Surface Roughness in Turning<br><b>Mehmet Yaka, Levent Ugur, Harun Yaka, Salih Guvercin*</b>                           |
| 14.00-14.15                  | 73                          | Dashboard Glovebox Production With Silicon Moulding Technology<br><b>İsmail Durgun*</b>  | 154         | Design of a Multi-Axle Steering Mechanism for a Special Purpose Vehicle: Kinematic Design and Optimization<br><b>Mehmet Topaç*, Ata Kaplan, Batuhan Kuleli, Uğur Deryal</b> |
| 14.15-14.30                  | 88                          | Advantages / Disadvantages of Non-Traditional Manufacturing Methods According to Traditional Manufacturing Method<br><b>Aytaç Yıldız*, Salih Guvercin, Barış Bakırcıoğlu</b> | 48          | Linear m-consecutive-k-out-of-n: F repairable system with unequal component failure probabilities<br><b>Yunus Güral*</b>  |
| 14.30-14.45                  | 99                          | Doğrudan Metal Lazer Sinterleme Yönteminin Parametreleri ve Uygulama Alanları<br><b>Oğuz Erdem*</b>  | 205         | Regression modeling and Monte Carlo simulation of machining parameters in turning of 34CrNiMo6 using Minimum Quantity Lubrication<br><b>Çağrı Vakkas Yıldırım*</b>          |
| 14.45-15.00                  | 122                         | Determination Of Optimum Surface Processing Parameters By Anp And Taguchi Methods<br><b>Salih Güvercin*, Arif Gök</b>  | 259         | Analysis and Optimization of Mini Excavator with Hydraulic System<br><b>Saygın Sucuoglu*, İsmail Böğrekci, Pınar Demircioğlu, Aslı Gültekin</b>                             |
| 15.00-15.20                  | COFEE BREAK                 |  | COFEE BREAK |   |
| CHAIR                        | Prof. Dr. Hakan Fehmi ÖZTOP |  | CHAIR       | Prof. Dr. Mustafa KURT  |
| 15.20-15.35                  | 369                         | Impact behavior of Al-Glass Fiber Composite Joints Bonded with Nanoparticles Reinforced Epoxy Adhesive<br><b>Mehmet Çakır*, Didem Kınay</b>                                  | 264         | An Investigation on Bushing Height and Bushing Wall Thickness in Friction Drilling of A7075-T651 Aluminium Alloy<br><b>Z. Demir*, C. Ozek, O. Adıyaman, R. Yakut</b>        |
| 15.35-15.50                  | 419                         | Investigation of Surface Qualities of CoCrMo Alloy Using   | 266         | An Investigation on the Effects of Vibrations Applied to the  |



8<sup>TH</sup>  
INTERNATIONAL  
ADVANCED TECHNOLOGIES  
SYMPOSIUM

MANUFACTURING TECHNOLOGIES

|                               |                              |  |              |   |  |
|-------------------------------|------------------------------|--|--------------|---|--|
|                               |                              | Turning-Grinding Method<br><b>Ender Emir*, Erkan Bahçe</b>   |              | Machining Tank on Geometric Wear of Tool Electrode in Electrical Discharge Machining<br><b>Ali Özgedik*</b>   |  |
| 15.50-16.05                   | 124                          | Effect of die surface angle, temperature and blank holder force on the microhardness of cups obtained by deep drawing method<br><b>Cebeli Özek, Vedat Taşdemir*</b>                  | 282          | Robotic Manufacturing Cell Design Through Operation Allocation and Robot Move Sequencing<br><b>Hakan Gultekin*</b>  |  |
| 16.05-16.20                   | 287                          | The Effects of Rotational and Welding Speeds on Mechanical Properties of Friction Stir Welded Dissimilar Joints of AA7075 and Commercially Pure Copper Sheets<br><b>Ahmet Cakan*</b> | 370          | Shear strength of Al-Glass Fiber Composite Joints Bonded with Nanoparticles Reinforced Epoxy Adhesive<br><b>Mehmet Çakır*, Didem Kınay</b>  |  |
| 16.20-16.35                   | 1067                         | Incremental Sheet Forming Application Areas<br><b>İsmail Durgun*</b>   | 775          | Determination of Critical Machines and Scheduling of Machine Maintenance<br><b>Bahar Özyörük*</b>   |  |
| 16.35-16.50                   | 278                          | Energy Aware Scheduling of the Material Handling Robot in M-Machine Robotic Cells<br><b>Hakan Gultekin*, Sinan Gurel, Rabia Taşpınar</b>   | 792          | Design and Manufacturing of Triglide Robot<br><b>Muhammet Aydın*, Oğuz Yakut</b>  |  |
| <b>20.10.2017 FRIDAY/CUMA</b> |                              |  |              |   |  |
|                               | <b>HALL-K</b>                |  |              | <b>HALL-L</b>   |  |
| <b>CHAIR</b>                  | <b>Prof. Dr. Halil DEMİR</b> |  | <b>CHAIR</b> | <b>Assoc. Prof. Dr. Cebeli ÖZEK</b>   |  |
| 08.30-08.45                   | 318                          | Condition Monitoring Through Unbalance and Misalignment Failures in Synchronous Mode<br><b>Salih Erol*</b>   | 151          | Investigation of Stress Analysis in Sandwich Composite Plates By Ansys Method<br><b>Semih Taşkaya*, Nida Katı, Tülay Yıldız, Ali Kaya Gür</b>   |  |
| 08.45-09.00                   | 344                          | Part manufacturing with fused deposition modeling (FDM) method<br><b>Ömer Karabıyık*, Ergün Korkmaz</b>  | 478          | PA66 Dişli Çarkların Farklı Yük Değişimindeki Aşınma Davranışlarının İncelenmesi<br><b>Rifat Yakut*</b>   |  |
| 09.00-09.15                   | 360                          | Investigation Of Machinability AISI D2 Cold Steel With Graphite Electrode<br><b>Ali Kalyon*</b>  | 506          | Effect of change in mechanical properties of 30 MnVS5 and C45 steels cooled in sand and air after hot forging on cutting force and surface roughness<br><b>Barış ÖZLÜ, Mustafa Türkmen*, Halil Demir, Süleyman Gündüz</b> |  |
| 09.15-09.30                   | 362                          | Effect Of Clamping Force In Turning Of Thin Walled   | 125          | Investigation of warm deep drawing process by angular deep  |  |



8<sup>TH</sup>  
INTERNATIONAL  
ADVANCED TECHNOLOGIES  
SYMPOSIUM

MANUFACTURING TECHNOLOGIES

|             |                                |  |              |   |
|-------------|--------------------------------|--|--------------|---|
|             |                                | Cylindrical Parts<br><b>Yusuf Ayan*</b> , <b>Ibrahim Ciftci</b> , <b>Halil Demir</b>   |              | drawing dies<br><b>Cebeli Özek</b> , <b>Vedat Taşdemir*</b>   |
| 09.30-09.45 | 721                            | Laser Welding Of Dissimilar Material Combinations<br><b>Hüseyin Özden*</b>   | 521          | Application of Theory of Inventive Problem Solving for Systematic Innovation: Case Study on Tray Rack System<br><b>Kadir Esmeray*</b> , <b>Arif Gök</b>   |
| 09.45-10.00 | 1118                           | Finite Element Analysis Of A Wind Turbine Collobarated Rotor Hub And Main Shaft<br><b>Mustafa Kurt*</b> ; <b>Bilçen Mutlu</b> ; <b>Süleyman Demir</b> ; <b>Gürcan Atakök</b> | 526          | Investigation of Metallic Foam Materials Manufacturing Processes, Materials and Applications<br><b>Çağrı Vakkas Yıldırım*</b>   |
| 10.00-10.20 | COFFEE BREAK                   |  | COFFEE BREAK |   |
| CHAIR       | Assoc. Prof. Dr. Erol KILIÇKAP |  | CHAIR        | Assoc. Prof. Dr. M. Yavuz SOLMAZ  |
| 10.20-10.35 | 766                            | Machinability of Nickel-Based Inconel Alloys<br><b>Şenol Bayraktar*</b> , <b>Onur Demir</b>  | 532          | Design of Flat Sleeping Bag for Summer Camping<br><b>Umut Sahin*</b> , <b>Senem Kursun Bahadır</b>  |
| 10.35-10.50 | 519                            | Sports Industry 4.0<br><b>Sebahattin Devecioglu*</b>   | 557          | Effect On Cutting Forces Of Minimum Quantity Lubrication Methods In Hard Turning Of 90MNCrV8 Cold Work Tool Steels<br><b>N. Yılmaz*</b> , <b>A. Öndaş</b>   |
| 10.50-11.05 | 780                            | Product Faults Encountered in Fused Deposition Modelling and Suggested Solutions<br><b>Ahmet Fatih Yuran*</b> , <b>İbrahim Yavuz</b> , <b>Muhammed Esad Çakır</b>            | 759          | Design and Production of a Multi-Axis CNC WorkCenter with a Vision Aided Robotic Part Manipulation System<br><b>Zeynep Sezen Arseven</b> , <b>Haluk Küçük*</b>  |
| 11.05-11.20 | 785                            | New Trends in Machinability of Titanium Alloys<br><b>Şenol BAYRAKTAR*</b> , <b>Onur DEMİR</b>  | 599          | Investigation of material removal ratio in tangential cylindrical grinding method<br><b>Çetin Özey*</b> , <b>Hasan Ballıkaya</b> , <b>Mehmet Altuğ</b>  |
| 11.20-11.35 | 1089                           | Structural Stress Method for Fatigue Analysis of Welded Joints Using the Finite Element Method<br><b>Oğuzhan Mülkoğlu*</b>   | 954          | A Heuristic Algorithm for Assembly Line Balancing Problem With Resource Dependent Setup Times<br><b>Zeynel Abidin ÇİL</b> , <b>Süleyman Mete*</b> , <b>Eren Özceylan</b> , <b>Zülal Kenger</b> , <b>Ömer Nedim Kenger</b> |
| 11.35-11.50 | 1151                           | A Review of Aerodynamic Active Flow Control<br><b>Tugrul Oktay</b> , <b>Öztürk Kanat*</b>  | 1050         | Sertleştirilmiş Aısı 4140 Çeliğinin Frezelenmesinde Takım Aşınmasının Tersine Mühendislik Yöntemi İle Karakterisasyonu<br><b>İsmail ovalı*</b> , <b>Yavuz Kaplan</b> , <b>Şener Karabulut</b> , <b>Cemal Esen</b>         |
| 11.50-13.30 | LUNCH BREAK                    |  | LUNCH BREAK  |   |



8<sup>TH</sup>  
INTERNATIONAL  
ADVANCED TECHNOLOGIES  
SYMPOSIUM

MANUFACTURING TECHNOLOGIES

| CHAIR       | Assoc. Prof. Dr. Ulaş ÇAYDAŞ |   | CHAIR        | Assoc. Prof. Dr. Yahya Hişman ÇELİK  |
|-------------|------------------------------|---|--------------|--|
| 13.30-13.45 | 1013                         | Effect of Tool Geometry on Surface Roughness and Burr Formation in Micro Milling Process<br><b>Kubilay Aslantaş, Ali ERÇETİN*, Gülbin Çelik</b> | 598          | Investigation of surface roughness in tangential cylindrical grinding method using Taguchi method<br><b>Çetin Özacı*, Hasan Ballıkaya, Mehmet Altuğ</b>  |
| 13.45-14.00 | 875                          | Design of UAV with Birch Type Wood<br><b>Mahmut Sinecen*, Yılmaz Kalkan, Alican Erüst, Hacı Veli İlkılıç</b>                                    | 451          | Modelling of the Effect of a New Type of Plane Surface Grinding Technique on Surface Roughness by Taguchi Orthogonal Design<br><b>Şehmus Baday*, Oktay Adıyaman, Zülküf Demir, Vedat Savaş</b>                     |
| 14.00-14.15 | 876                          | The Prediction of Springback in V Bending Process by Fuzzy Logic<br><b>İbrahim Karaağaç*, Onuralp Uluer</b>                                     | 917          | The Investigation of the Mathematical Model of the Door Closer Mechanism and Theoretical Investigation of the Movement<br><b>Sezgin Eser*</b>  |
| 14.15-14.30 | 886                          | Influence of Contact Pressure on Surface Roughness Losses in Shrink Fitted Joints<br><b>Fatih Güven*, Hikmet Rende</b>                          | 1014         | Effect of Cutting Speed on Cutting Forces, Surface Roughness and Burr Formation in Micro Milling Mg-4Sn Alloy Fabricated Through Powder Metallurgy Hot Press<br><b>Kubilay Aslantaş, Özgür Özgün, Ali ERÇETİN*</b> |
| 14.30-14.45 | 887                          | Influence of Surface Roughness on Preload of Bolted Connections<br><b>Hikmet Rende, Fatih Güven*, Burak Meşhur</b>                              | 1051         | Sertleştirilmiş Aısı 5200 Çeliğinin Tornalanmasında Takım Aşınmasının Tersine Mühendislik Yöntemi İle Karakterizasyonu<br><b>İsmail ovalı*, Yavuz Kaplan, Şener Karabulut, Cemal esen</b>                          |
| 14.45-15.00 | 1117                         | The Modal Analysis of A 500 KW Wind Turbine's Hub<br><b>Mustafa Kurt*, Süleyman Demir; Bilçen Mutlu; Barkın Bakır</b>                           | 1091         | The Grey-based Taguchi method: Optimization Of The Effects Of Abrasive Waterjet Cutting Parameters On Kerf<br><b>Mustafa Ay*</b>   |
| 15.00-15.20 | COFFEE BREAK                 |   | COFFEE BREAK |  |
| CHAIR       | Asst. Prof. Dr. Faruk KARACA |   | CHAIR        | Assoc. Prof. Dr. Çetin ÖZAY  |
| 15.20-15.35 | 952                          | A Mathematical Model for Robotic Disassembly Line Balancing Problem<br><b>Zeynel Abidin ÇİL, Süleyman Mete*</b>                                 | 267          | The Effects of Wire Electrode Diameter, Coated and Uncoated Wire Electrodes on Cutting Speed in CNC Wire Electro Discharge Machining<br><b>Hüseyin Gürbüz*, Şehmus Baday</b>                                       |
| 15.35-15.50 | 956                          | Evaluation of the hole quality in cryogenic drilling of Inconel 718 and comparison with dry and wet drilling<br><b>Necati UÇAK, Adem ÇİÇEK*</b> | 1102         | Manyetik Aşındırıcılarla Düzlem Yüzeylerin İşlenebilirliğinin Araştırılması<br><b>Ulaş Çaydaş*; Tuba DEMİREL</b>   |
| 15.50-16.05 | 1080                         | Kalıp Üretim Süreçlerinin Standart Sürelerinin Belirlenmesinde Yapay Zekâ Yöntemlerinin Kullanılması  | 1096         | Machining Process Of Additively Manufactured 316L Stainless Steel<br><b>Mustafa Uçurum; Harun Bayram; Emre Taşcıoğlu; Yusuf Kaynak*</b>  |



8<sup>TH</sup>  
INTERNATIONAL  
**ADVANCED TECHNOLOGIES**  
SYMPOSIUM

**MANUFACTURING TECHNOLOGIES**

|             |      |  |      |  |
|-------------|------|--|------|--|
|             |      | <b>Gizem Göklü, Hakan Altunay*, İmren Öztürk Yılmaz,<br/>Necip Ceylan, Seda Özmutlu, Hüseyin Cenk Özmutlu</b>                        |      |  |
| 16.05-16.20 | 1164 | Computational Design of Petrochemical Centrifugal Pump Casing Under High Pressure<br><b>Okan Cebeci, Mustafa Kurt*, Bilçen Mutlu</b> | 1097 | Machining Process And Surface Integrity Characteristics Of 316lvm Stainless Steel<br><b>Mustafa Dengiz; Ömer Sarıçan; Özhan Kıtay; Emre Taşcıoğlu; Yusuf Kaynak*</b> |
| 16.20-16.35 |      |  | 836  | ANSYS Workbench Modelling of Steel Alloys in the Turning Operation<br><b>Engin Ünal*, Faruk Karaca</b>   |