

UDCS'21 FULL PROGRAMME

DAY 1	1 APRIL THURSDAY	LOCATION
ZOOM Link: https://us02web.zoom.us/j/89524139701?pwd=WjZoYmNkUm4rV3BWL1BDTEQxcU12QT09 Meeting ID: 895 2413 9701 Passcode: 766944		
8.30-10.00	Registration	Karabuk University 15 Temmuz Conference Hall
10.00-10.10	Opening ceremony	
10.10-11.00	Speech of Protocol	
11.00-11.05	International FENOFEM Virtual Fair Opening	
11.05-11.45	Keynote Speech Prof. Dr. Mustafa BABANLI - Rector of the Azerbaijan State Oil and Industry University	
11.45-12.00	Coffee Break	
12.00-12.30	Keynote Speech Dr. Murray COOK- European General Galvanizers Association	

DAY 1	SPEAKER	LOCATION
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
14.00-14.30	Dr. Veysel YAYAN (Steel Producers Association of Turkey)	Karabuk University Iron and Steel Institute, ZOOM
14.30-15.00	Prof. Dr. Huseyin ÇİMENOĞLU (Istanbul Technical University)	
15.00-15.30	İbrahim TOZLU (MATIL Inc.)	
15.30-16.00	Assoc. Prof. Dr. Bulent AYDEMİR (TUBITAK)	

ORAL PRESENTATIONS

SESSION 1

Room : ZOOM-- 01.04.2021 – (16:00 – 16:50) Session Chair: Dr. Mehmet Akif ERDEN		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
25	Effect of Pre-Heat Treatments on Microstructures and Mechanical Properties of Austempered Ductile Iron (ADI)	Barbaros Şenses, Yusuf Yıldırım, Yasin Efe and Volkan Kılıçlı
27	Effect of Air Cooling from Intercritical Austenitizing Temperatures on Microstructures and Mechanical Properties of Ductile Iron	Kutay Kayaalp, Ömer Şahin and Volkan Kılıçlı
35	Investigation of the Producibility of the Dual-Phase Microstructure at the same time with the Surface Carburizing Process in AISI 8620 Steel in Industrial Type Vacuum Cementation Furnaces	Özer Pamuk and Ümit DemİR
45	Effect of Preannealing on Delta Ferrite in AISI 304L Stainless Steels for Hot Forging	Funda Gül Koç, Serhan Özdeğer, Ersoy Erişir, Taner Makas, Mustafa Şirin, Oğuzhan Kanat and Fatih Angigün
46	Casting and Characterization of High Alloyed White Cast Iron with Cobalt Additives	Funda Gül Koç and Burak Barutçuoğlu

Room : ZOOM-- 01.04.2021 – (17:00 – 17:50) Session Chair: Dr. Hüseyin DEMİRTAŞ		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
4	Effect of Austempering Times on the Microstructural Features of Austempered Ductile Iron (ADI)	Mert Yağız Tüzün, Mustafa Alp Yalçın, Kemal Davut and Volkan Kılıçlı
10	Variation of Anisotropy with Plastic Strain and Its Effect on the Yield Surface Shape of Austenitic Stainless Steel	Bora Şener, Toros Arda AkŞen and Mehmet Firat
17	DEVELOPMENT OF 5Si1Nb AND 5Si1Nb4Al CAST ALLOYS AS CANDIDATE EXHAUST MANIFOLD MATERIALS	Gülşah Aktaş Çelik, Şeyda Polat, Şaban Hakan Atapek, Maria-Ioanna T. Tzini and Gregory N. Haidemenopoulos
18	OXIDATION BEHAVIOR OF 5Si1Nb AND 5Si1Nb4Al CAST ALLOYS DEVELOPED AS CANDIDATE EXHAUST MANIFOLD MATERIALS	Gülşah Aktaş Çelik, Şeyda Polat, Şaban Hakan Atapek, Maria-Ioanna T. Tzini and Gregory N. Haidemenopoulos
24	THE DEFINITION OF THE ANISOCTORPIC BEHAVIOR OF AUSTENITIC STAINLESS STEEL WITH HILL48 FLOW CRITERIA	Elif Sıla Selek Kılıçarslan, Mehmet Firat and Toros Arda Aksen

Room : ZOOM-- 01.04.2021 – (18:00 – 18:40) Session Chair: Dr. Sedef ŞİŞMANOĞLU		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
41	The Effect Of TiCN Coating On The Hardness Of 630 Stainless Steel	Şengül Danışman and Emin Ersoy
73	Low Temperature Nitriding of a Ferritic Stainless Steel	Tufan Gümüşlü, Mertcan Kaba, Doğukan çetiner, Faiz Muhaffel, Erdem Atar and Hüseyin çimenoğlu
66	Corrosion Behavior of High Chromium Fe-Based TiC Composite Coating	Hülya Demiroren and Soner Buytoz
67	Electrochemical Analysis of Ceramic Surface Coatings	Soner Buytoz and Hülya Demiroren
47	Investigation of The Effect of The Deformation Rate of Microstructure and Mechanical Properties of the Automotive Suspension System With Complex Geometry	Ahmet Can Yasar, Ahmet Asım Eser and Mustafa Acarer

SESSION 2

Room : ZOOM-- 02.04.2021 – (09:00 – 09:50) Session Chair: Dr. Betül ERCAN		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
13	Process Management of Steam Trap Revision According to Welding Engineering Discipline	İsmail Kalkan, Atilla Baytemür and İdris Karagöz
38	Experimental and Simulation Studies on Phase Transformation During Resistance Spot Welding of Advanced Steel	Abdulkarim Alzahougi, Bilge Demir, Mustafa Gökteş and Muhammed Elitaş
79	Parametric Study for Additive Manufacturing of Structural Steel by TIG Welding Method	Yusuf Ayan and Nizamettin Kahraman

42	The Effect of TiCN Coating On The Wettability Of 630 Stainless Steel	Şengül Danışman and Emin Ersoy
57	TİG Kaynak Yöntemi ile üretilen 304 Kalite Paslanmaz Çelik Boruların Farklı Sıcaklıklarda Normalizasyon Tavlaması Sonucu Mekanik ve Mikroyapısal Değişimleri	Mehmet ŞahİN, Aşkın Altınyelken, Sinan AkbaŞ, Salih BektaŞ and Mehmet Çınar

Room : ZOOM-- 02.04.2021 – (10:00 – 11:00) Session Chair: Dr. Yunus TÜREN		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
22	Investigation of the Effect of Feed Rate on Dimensional Accuracy in Turning of 17-4 PH Stainless Steel	Saltuk Alper Yaşar and İhsan Korkut
23	Investigation of the Effect of Drill Bit Diameter in the Blast Furnace	Ömer Saltuk Bölükbaşı and Mehmet GÖkoĞlu
48	Adaptation Of Cryogenic Systems For Internal Cooling Drill Comperative By Coolants	Oğuzcan Güzelipek, Tuğrul Soyusınmez and Taner Kavas
1	Predicting solidification cracking susceptibility of AISI 1018 and 1045 steels and filler metal effect	Tayfun Soysal
49	Investigation Of The Hardness Change Of 1030 Steel Casting Material As A Result Of Different Heat Treatment Environments	Mustafa Yaşar and Oğuzhan Bildik

Room : ZOOM-- 02.04.2021 – (11:00 – 11:50) Session Chair: Dr. Süleyman YAŞIN		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
34	Removal of COD from Real Coke Plant Wastewater by UV Assisted Electro-Fenton (PEF) Process	Fuat Özyonar and Bünyamin Karagözoğlu
39	Parameters Affecting the Thermal Shock Resistance of Cordierite	Ahmet Gökhan Gokkaya and Cemalettin Yaman
40	Investigation of the relation between molar composition and compressive strength of the un-calcined kaolin based geopolymeric sand binder.	Süleyman Yaşın and Selin DemİR
44	Investigation of Ag Nanoparticles Anchored Halloysite Nanotubes	Hasan Onay and İsrail Küçük
14	Use of Ore-Based Metallic Raw Materials as an Alternative to Scrap for Steel Production in Electrical Arc Furnace (EAF)	Musa Atas and Gürel Cam

Room : ZOOM-- 02.04.2021 – (12:00 – 12:50) Session Chair: Dr. Alper İNCESU		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
30	Effect of TiO ₂ Addition on Physical Properties of Lime-Alumina Based Mould Powders During Continuous Casting of High-Aluminium Steels	Mustafa Seyrek and Richard Thackray
58	Characterization of 316L alloy produced and sintering in a new metal injection system	Bunyamin Cicek and Yavuz Sun
61	The choice of powder charges and properties of the powder composite material "iron-cast iron-glass"	Tahir Jabbarov

53	SMART MATERIALS: A REVIEW	Yusuf Karaca, Bülent Kurt and Cemal ÇarboĖa
26	Improving Strength of Rail Steel and Investigation Main Mechanical and Microstructural Properties	Abdulkadir KiliÇ and Yasin Sarikavak

Room : ZOOM-- 02.04.2021 – (14:00 – 14:50) Session Chair: Dr. Hayrettin AHLATÇI		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
3	Investigation of Microstructure and Microhardness Properties of Armor Steel Coated with NbC	Dara Hamit Güneş and Musa Kılıç
5	Improvement of Wear Resistance in Toothed Harrows Coated with HVOF and PVD Methods	Yaşar Serhat Saygili and Bülent Çakmak
20	The Effect of Tool Coating on Geometric Tolerances in the Drilling of AISI 303 Austenitic Stainless Steel	Duygu Gürkan and İhsan Korkut
37	Investigation of the Effect of Plasma Nitriding Process on the Friction Coefficient of Steels	Alaaddin Toktaş and Gülcan Toktaş
65	Armox 500 Zirh ÇeliĖinin Tuz Banyosunda Trd Yöntemiyle VC KaplanabilirliĖinin Arařtırılması	Murat Başar, Bülent Kurt and Cemal ÇarboĖa

Room: ZOOM-- 02.04.2021 – (15:00 – 15:50) Session Chair: Dr. Mehmet ÜNAL		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
6	Development of A 3-D Die Surface Compensation Method based on Part Springback Distribution	Emre Esener, Bora Şener and Mehmet Fırat
11	Numerical Analysis of Finned Pipe Performance Using Different Design and Material	Haydar Kepekci
29	An Approach to Uncertainty Calculation of the Modulus of Elasticity for Metallic Metarials	Birgul Kacar, Bulent Aydemir, Haldun Dizdar, Cemal Vatan and Ufuk Kuru
9	Edge Thinning Prediction of a Hole Under Stretching	Toros Arda Akşen, Bora Şener, Emre Esener and Mehmet Fırat
7	Finite Element Modeling of Stretch Drawing Process Using Bake Hardenable Steels	Aysema Ünlü, Ezgi Kap, Emre Esener and Mehmet Fırat

Room : ZOOM-- 02.04.2021 – (16:00 – 16:50) Session Chair: Dr. Safa POLAT		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
68	Effects of Pulse On/Off Times Parameters on Surface Roughness in Wire Electrical Discharge Machining of Tool Steel	Umut Yildiz and Orhan Çakir
72	Use of alternating bending to increase ductility of cold-drawn wire	Ihor Vakulenko, Bülent Kurt, Khangardash Asgarov and Ahmet Emrah ErdoĖdu
80	Microstructural investigation of TBF steels by hot stamping and isothermal holding treatment	Mustafa Uzunboy, OĖuz Gürkan Bilir, Ersoy Erişir and Muzaffer Zeren
74	Investigation of The Effect of Rolling Speed-Water Flow Quantity	Özgür Galip Dikbaş and Bilge

	Relationship on Tensile Properties of Concrete Steel in Tempcore Cooling Method	Demir
77	Comparison of Processing of Special Tool Steels by Electro Erosion Method	Serkan Yaman and Orhan Cakır

Room : ZOOM-- 02.04.2021 – (17:00 – 17:50) Session Chair: Dr. Ismail Hakkı KARA		
https://zoom.us/j/6820128231?pwd=elFBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
31	Influence of porosity on mechanical and tribotechnical characteristics of copper-graphite composition materials	Aynur Sharifova
84	KarbonFiberTakviyeli Polimer (CFRP) Malzemelerin Kaplamasız Kesici TakımlaİşlenebilirlikÖzellığının İncelenmesi	Yasin Özgürlük
85	AtmosferikPlazma Sprey (APS) yöntemi ile üretilen Cr3C2-NiCr kaplamaların mikroyapısal özelliklerinin incelenmesi	Derviş Özkan
51	The Effect of Homogenization Heat Treatment on Microstructure and Hardness Properties of AZ31-La-Nd alloy	Ismail Hakki Kara
52	The Determination of the Homogenization Heat Treatment Parameters of AT31-La-Gd alloy	Ismail Hakki Kara and Esra Özsoy

Room : ZOOM-- 02.04.2021 – (18:00 – 18:40) Session Chair: Dr. Harun CUG		
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Paper ID	Title	Author(s)
60	Transverse shear composite material in the case when the binder and inclusions are weakened by cohesive cracks	Rafail Mekhtiyev, Rustam Qurbanov and Aykhan Mansimov
62	Strained-deformation state of polymer composition material shaft of centrifugal pump	Ilman Hasanov
63	Properties of obtaining of aluminum alloy alloyed with transitional metals	Narmin Mammadli
56	Influence of graphite nanoparticles on the mechanical properties of aluminum matrix FMLs	Mustafa Babanlı, Nurlan Gurbanov, Kamala Ismayilova and Yusif Tanriverdiyev
33	Influence of Casting Temperature On Shrinkage And Accuracy Of Parts Made Of Thermoplastic Materials	Shahnaz Aghayeva

Room : Iron and Steel Institute Meeting Room-- 02.04.2021 – (09:00 – 09:40)		
Paper ID	Title	Author(s)
82	Mikro Alaşımli Çeliklerde Isıl İşlem Parametrelerinin Mikroyapı, Mekanik ve Aşınma Özelliklerine Etkisi	İnci Yahyaoglu, Onur Yağız, Emre Turen, Volkan Karakurt, Hanifi Taze, Yunus Turen and Hayrettin Ahlatcı
75	Silver Nanoparticle Effect on Wear Rate of Iron-Graphite Composite	Hamza SIMSIR
71	Sustainable Carbon Effect on Mechanical Properties of Low Carbon Contained 316 L Stainless Steel	Esra Algım, Hamza Simsir and Mehmet Akif Erden
50	The Sliding Wear Behaviour of Fe / ZrO2 Composites at Elevated Temperatures	Fatih Aydın

Room : Iron and Steel Institute Meeting Room-- 02.04.2021 – (10:00 – 10:40)		
Paper ID	Title	Author(s)
54	Effect of Pre-Strain Application to the Fatigue Life of Reinforcing Steel	Muhammed Mevlut Karaca and Alper Incesu
59	Investigation of Tribological Properties of Iron/ Hydrothermal Carbons Composite	Yasin AKGUL
55	Enhanced Mechanical Strength of AlSixCuNiMg alloy with the addition of MWCNT	Muhammet Emre Turan, Fatih Aydın, Yavuz Sun, Huseyin Zengin and Ozgen Aslan
64	Investigation of the potentiodynamic corrosion behaviour of 56SiCr6 spring steels	Engin CEVIK

SESSION 3

Room : ZOOM-- 03.04.2021 – (09:00 – 09:50) Session Chair: Dr. Fatih AYDIN		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
15	Topology Optimization of Lattice Structures in Dental Implants	B. Sercan Bayram and İhsan Korkut
43	Modelling and Assessment of Crankshaft through SOLIDWORK Program	Timur Choban Khidir, Bilal Mohammed Qasim and Abbas Mohammed Ismael
76	Experimental studying of the effect of the discharge of fluid flow values accuracy by using deferent flow meters devices	Omar Qasim, Selami Sağiroğlu and Sarah Alhusaini
69	The Effect of Operating Temperature and inlet gases relative humidity on Proton Exchange Membrane Fuel Cell Performance-CFD study	Omar Qasim and Selami Sağiroğlu
8	A Numerical Investigation on Hole Expansion Behavior of Bake Hardenable Steels	Ela Nur Şahin, Yasin Çini, Emre Esener and Mehmet Fırat

Room : ZOOM-- 03.04.2021 – (10:00 – 10:50) Session Chair: Dr. Mustafa Yunus AŞKIN		
https://zoom.us/j/6820128231?pwd=e1FBQk0vdFM3WkZHbFFQWDhWRXU5dz09 Meeting ID: 682 012 8231 Passcode: 12345		
Paper ID	Title	Author(s)
12	Benefits of Using Air-Oil Lubrication System in Rolling Mills	Aytaç Aydın, Recep Demirsöz and Refik Polat
19	Types of Wire Rope Damage	Hasan Hüseyin Özden, Aytaç Aydın and Recep Demirsöz
21	Factors Affecting Lining Efficiency in Foundries Using Induction Furnace Melting	İsmail Karaca and Fatih Apaydın
32	Investigation of the sealing node of the pipe holder of the mobile lifting and lowering device	Leyla Muzaffarlı and Jamaladdin Aslanov
83	Evolution of Artificial Defects in Rolling Mills	Ali Yağız Şahin, Aysun Işıkgül, Osman Işıkgül, Oğuzhan Yurtseven, Sait Hadutoğlu

Room : Author(s)– 03.04.2021 – (11:00 – 11:40)
Session Chair: Dr. Yasin AKGÜL

<https://zoom.us/j/6820128231?pwd=eFBQk0vdFM3WkZHbFFQWDhWRXU5dz09>
Meeting ID: 682 012 8231
Passcode: 12345

Paper ID	Title	Author(s)
78	Fibercement üretiminde enerji verimliliği	Murat Özel, Kadir Sarı, Büşra Günhan and Hasan Yamık
81	Digitalization of a Steel Pipe Production Factory: STEEL4.0- A Family of Products Developed on Routes from Industry 3.0 to Industry 4.0	Özlem Albayrak and Perin Ünal
2	Metalografik Muayene Yöntemi İçin Pirina Katkılı Parlatma Süspansiyonu	Zekeriya Doğan and Nergizhan Anaç
28	Role of Steel and Iron Sector For The National Power	Merve Aytaç