

OCTOBER 24 2024 Thursday

OPENING SPEECH (link to watch) 9:30-10:00

[YOUTUBE\(https://www.youtube.com/@ICMATSE/streams \)](https://www.youtube.com/@ICMATSE/streams)

HALL A (HALL ANKARA) (24 THURSDAY)

Opening

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
10:15 - 10:40	211	Defence Industry and Future	https://zoom.us/j/96536428585	https://www.youtube.com/@ICMATSE/streams	C. Basbug	M. Bakir I. T. Gulenc
10:45 - 11:15	66	Wear of Die Steels Under Repeated Impact - Sliding Contacts				
11:20 - 11:50	207	TAI Satellite Projects and Additive Manufacturing				
11:50 -12:15	98	Next generation drug delivery nanosystems				
12:20 - 12:40	204	Eti Maden General- Presentation				

Break/LUNCH

HALL A (ANKARA) OCTOBER 24

Afternoon

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
13:30 - 13:45	25	Tolerances and Mechanical Properties Comparison As-built Hole vs. Drilled Hole of Polymer Additive Manufacturing	https://zoom.us/j/97095505815	https://www.youtube.com/@ICMATSE/streams	A. Bayar	C. H. Gur H. E. Unalan E. Mermer
13:50 - 14:05	81	The Effect of Temperature on the Tensile Behavior of Additively Manufactured IN 718 for As-Built and Direct-Aged Conditions			T. K. Alay	
14:15 - 14:40	200	The future of welding engineering, inspecting and quality in manufacturing			O. Akcam	
14:45 - 15:00	120	An assessment of the potential of the conversion of pomegranate membrane into value-added products			E. Yalman	
15:05 - 15:20	30	An Overview of Magnetic Nanofluids and Their Thermal Applications			A. Sozen	
15:30-16:00		coffee break			Mehteran Gösterisi ve Seğmen (janissary show and Seğmen)	

16:00 - 16:15	64	Open Hole Tension Test And Finite Element Method Simulation In Polymer Matrix Composite Materials: Experimental And Analytical Comparison	https://zoom.us/j/97095505815	https://www.youtube.com/@ICMATSE/streams	U. Dogan	S. Salman T. Depci U. Ozdemir
16:20 - 16:35	113	Effect of WC Addition on Fe-B/ WC Laser Composite Coating			M. Eroglu	
16.:40 - 16:55	60	Manufacturing of 7075 Aluminium Alloy and 316L Stainless Steel Layered Composite via Explosive Welding			I. T. Gulenc	
17:00 - 17:15	18	Microstructural and Mechanical Analysis of Hardfaced Surfaces Using a Novel Self-Shielded Flux-Cored Arc Welding Wire			F. Sari	
17:20 - 17:35	76	Investigation of the Weldability of Glass Fiber Reinforced Polyamide 6 Composite Materials in Ultrasonic Spot Welding Method			A. Yönetken	
17:40 - 17:55	93	Investigation of The Life Time of The Coating Applied on The Steam Turbine Blade In Terms of Corrosion And Erosion			M. Kayaalp	
18:00 - 18:25	220	Characterization Of Pomegranate Peel, Activated Carbon And Hard Carbon Derived From Pomegranate Peel			T. Depci	
18:35 - 18:50	114	Removal of Boron and Boron Compounds From Waste Waters			I. C. Gursoy	
19:00 - 19:15	57	Recent Advances in Polymer Materials used for Biomedical Applications			P. Toren Ozgun	

HALL B (HALL ISTANBUL) (24 THURSDAY)

Opening

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
11:10 - 11:30	21	Thermo-Calc Investigation of the Ga-As Binary System	https://zoom.us/j/93084048566	https://www.youtube.com/@ICMATSE/streams	S. J. Ikhmayies	B. Kinaci Y. Akpınar
11:35 - 11:55	80	Phase Diagram and Thermodynamic Properties of the Fe-Cu Binary System			S. J. Ikhmayies	
12:00 - 12:20	116	Synthesis, Structure and Magnetic Properties of (Co/Ce) co-doped ZnO Nanoparticles			M. M. Seker Perez	

Break

HALL B (HALL ISTANBUL) OCTOBER 24

Afternoon

Time	Paper Id	Paper Name	Online Link (For Speakers)	Online Link (For Audiences)	Speaker	session chair
13:30 - 13:45	100	Development of Toolpath and Integrated Workflow with Parametric Modeling Approach in Robotic Wire Arc Additive Manufacturing Method			E. F. Aslan	Rahmi Unal O. Yılmaz O. Gülsoy
13:50 - 14:05	88	4D Printing of Shape Memory Polymer with Digital Light Processing			N. Tatlısu	
14:10 - 14:35	87	A Case Study on Ultrasonic Atomization of Stainless Steel Powder for Additive Manufacturing			A. Emiralioglu	
14:40 - 14:55	78	Design Application Against Temperature and Magnetic Noise in Adjustable Constant Current DC LED Drivers Under 50 Volts			B. Gokce	
15:05 - 15:20	89	Investigation of structural, mechanic, electronic, and optical properties of cubic perovskite $KSil_3$ using first-principles methods			G. Corbaci	

15:30-16:00		coffe break
16:00 - 16:15	83	Investigating the Solidification Temperature Range of High Strength Low Alloy Steels Using the Scheil Solidification Model With CALPHAD Methodology
16:25 - 16:40	32	Zinc foams made by a cold sintering process
16:50 - 17:05	17	Ni-Co based metallic foams for hydrogen production via electrochemical water splitting
17:15 - 17:30	31	Integration of Electrospinning and Additive Processing for Harvesting Energy in IoTs
17:40 - 17:55	91	Research and Development of Gd-doped Al/Gd/Y ₂ O ₃ /Si/Al MOS-based Nuclear Radiation Detectors
18:05 - 18:20	92	Development and Performance Evaluation of Radiation-Resistant Secondary Emission Ionization Calorimeters for High-Energy Physics Experiments
18:30 - 18:45	118	Investigation of Some Physical Properties of Tio ₂ Films Produced By Ultrasonic Spray Pyrolysis Technique

<https://zoom.us/j/97819254393>

<https://www.youtube.com/@ICMATSE/streams>

coffe break	
A. Kayadelen	G. Kucukturk H. Gurun
Gyorgy Thalmaier	
Sadia Ata	
Ashok Vaseashta	
S. Abubakar	
E. Tiras	
F. Kilickan	

HALL C (HALL GAZI) (24 THURSDAY) Morning

Opening

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
11:10 - 11:25	68	Examination of Electrodes Nickel Coated Silicon Nitride Ceramics by Ultrasonic Pulse Echo Method	https://zoom.us/j/94779729046	https://www.youtube.com/@ICMATSE/streams	V. O. BİLİCİ	S. Surdem E. Mermer
11:30 - 11:45	73	Development of Nickel-Based Bimetallic Anode Catalysts for Direct Ethanol Fuel Cells			F. N. Tiren	
11:55 - 12:10	115	Lemon peel incorporated PVA/chitosan composites for advanced bioactive food packaging : Physico-chemical properties and interfacial dynamics			M. Arous	
12:20 - 12:50	47	The rise of 212 MAX phase borides with enhanced thermo-mechanical properties			Md. A. Ali	

Break

HALL C (HALL GAZI) (24 THURSDAY) Afternoon

Afternoon

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
13:30 - 14:00	2	Surface Treatment Application of Bulk Amorphous Steel			A. Mehrabov	A. Ates V. Kilicli
14:10 - 14:25	61	Bulk Nanostructured Bainitic Steels: Superior Engineering Properties with Considerable Mechanical and Thermal stability			B. Avishan	
14:30 - 14:50	79	Effects of Shot Peening Parameters on Low Cycle Fatigue Life of 17-4 PH H1150 Steel			R. Meral	
14:55 - 15:15	102	Reducing Cracking Susceptibility of 7XXX Aluminum Alloys for Selective Laser Melting by Optimization of Composition			K. Davut	

15:15-15:30		Coffe Break
15:35 - 15:50	62	Self-Healing Metals versus Microcrack Healing of Metals
15:55 - 16:10	77	Third Generation Single Crystal Superalloys - A Short Review
16:20 - 16:50	48	Friction welding of dissimilar steels
16:00 - 17:15	56	Investigation of Mechanical Properties of B4C and Y2O3 Reinforced 304 Stainless Steel Structures Produced by Mechanical Alloying
17:20 - 17:35	106	The Effects of Ni-SiC Electrocomposite Coating on the Mechanical Properties of Aviation Piston Engine Cylinders
17:40 - 17:55	36	WAAM Properties of Mild and Carbon Steels
18:00 - 18:15	37	Residual Stresses and Distortion in WAAM
18:20 - 18:35	38	Wall Dimensions of MIG based Mild Steel WAAM Parts
18:40 - 18:55	6	Investigation of Thermal and Crystolographic Properties of Copper Filaments Used in Metal 3D Printers
19:00 - 19:15	7	Microstructural Characterization of Copper Materials Produced in Metal 3D Printing

<https://zoom.us/j/91388154850>

<https://www.youtube.com/@ICMATSE/streams>

Coffee Break	
V. Kilicli	S. Surdem E. Mermer
V. Kilicli	
Z. Boumerzoug	
S. Soken	
M. OKSUZ	
E. Dogan	
A. İ. Yukler	
E. Dogan	
G. Altuntas	
G. Altuntas	

OCTOBER 25 Friday

HALL A (HALL ANKARA) (25 Friday)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
09:00 - 09:30	35	What can XPS provide for Supercapacitors - Alternative Energy Storage Systems?	https://zoom.us/j/98606838219	https://www.youtube.com/@ICMATSE/streams	S. Suzer	Sefik Süzer H.İ. Unal
09:30 - 09:45	9	A comparative study of coal fly and bottom ashes as sustainable electroactive vibration damping materials			G. C. Ismetoglu	
09.45-10.20	124	Femtosecond Laser-FIB-SEM Triple Beam for Sample Preparation and Large Volume Analysis			Daniel Phifer	
10.25-11.00	127	The Importance of Surface Topography			Marek Jemelka	
11:00 - 11:30	86	Functional Films for Plasmonic Engineering and Soft Robotics			G. Demirel	
11:30 - 12:00	107	Structural, magnetic, and blood compatibility studies of Nickel-Copper nanoferrites produced by laser ablation technique			B. Ozcelik	
12.00-12.25	117	Employment of black phosphorous in nematic liquid crystals for enhancing their dielectric properties			Mouna El Abboubi	
12.30-12.50	108	Effect of PbS Quantum Dot Nanoparticales on The Dielectric Properties of Nematic Liquid Crystals			D.B. Aydın	

Break

HALL A (HALL ANKARA) OCTOBER 25 Friday Afternoon

Afternoon

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
13:40 - 14:15	33	Synthesis and Characterization of N-doped Carbon Black Supported Fe, Zn and Mo Based Catalysts for Oxygen Reduction Reaction	https://zoom.us/j/96915218937	https://www.youtube.com/@ICMATSE/stream	A.Tambwe Amir	Cigdem Guldur A. Gencer
14:20 - 14:55	34	Enhancement of HER Catalysts for PEM Electrolyzers: Investigating the Effects of Boron and Phosphorus on Ruthenium-Based Catalysts Supported by Active Carbon in Acidic Media			G. Dilmen	
15:00 - 15:35	111	The Importance of Representative Sampling and Homogenization in Designing the Reference Material Production Processes			B. Yüksel	
15:35-16:00		Coffe Break			Coffe Break	
16:00 - 16:35	15	Rare Earth Fluorescent Nanomaterials for Enhanced Development of Latent Fingerprints in Forensic Sciences			R. Maalej	
16:40 - 17:15	115	Lemon peel incorporated PVA/chitosan composites for advanced bioactive food packaging : Physico-chemical properties and interfacial dynamics			M. Arous	
17:20 - 17:35	126	Development of a Non-Toxic CuSbSe ₂ /ZnxSn(1-x)O Thin-Film Solar Cell with Optimized Multilayer Architecture			R. Mohammednadhaif	
17:00 - 17:15	119	The Effect of Bi[(Ti _{0.9} Zr _{0.1}) _{0.5} Zn _{0.5}]O ₃ Doping on the Structural, Dielectric, and Optical Properties of BiFeO ₃			N. Abdelmoula	

17:20 - 17:40	22	Technical innovations in the service of architectural history continuity
17:45 - 18:05	50	Amorphous Matrix Nanocomposites in Three-component Manganese-containing Borate Systems
18:10 - 18:30	13	Plasma Cutting of High-Strength Non-Metallic Fiber Composite Materials
18:35-18:50	54	Wind Energy application for Small-Scale Irrigation for Semiarid Region
18:55 - 19:10	59	Designing Efficient Solar-Powered Desalination Systems in Arid Region

<https://zoom.us/j/96915218937>

https://www.youtube.com/@ICMATSE/stream	N. Kochladze	Cigdem Guldur A. Gencer
	T. Loladze	
	T. Loladze	
	H. GUEDAOURIA	
	N. Sabira	

HALL B (HALL ISTANBUL) (October 25 FRIDAY)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
9:00 - 9:20	8	The Use of Hydrogels in Femoral Head Necrosis Research			Z Bal N.Takakura	Feza Korkusuz Nectdet Sğlam U. Tamer
9:30 - 9:50	1	Detecting Blood At Simulated Crime Scenes Through The Utilization Of Diverse Nanoparticles In Conjunction With SERS			Uğur Köroğlu	
10:00 - 10:20	51	Effect of strain on electronic and thermoelectric properties			D. Usanmaz	
10:20 - 10:40	97	Biocompatibility Issues for the Tissue Engineered Products for Commercialization			Gilson Khang	
10:40 - 11:00	94	Considerations on surface roughness for additively manufactured structures using non-explosible AlSi10Mg feedstock on a medium-wattage L-PBF machine	https://zoom.us/j/91285311919	https://www.youtube.com/@ICMATSE/streams	A. A. Popa F. N. Depboylu	
11:10 - 11:30	29	Investigation of 2D Materials for Hydrogen Production Performance			A. Gencer	
11:40 - 12:00	41	Energy as a Dual Use Item under European Union Law			N. Charalampidou	
12:05 - 12:30	84	Prospects of laser processing of Ta-substituted TiO2 for designing thermoelectric materials			D. Lopes	

Break

HALL B (HALL ISTANBUL) (October 25 FRIDAY) Afternoon

Afternoon

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
13:40 - 14:15	23	Green Hydrogen Generation Using Innovative MXene/Ni-functionalised Composite Electrodes	https://zoom.us/j/98778761619	https://www.youtube.com/@ICMATSE/stream	A.V. Kovalevsky	Bekir Ozcelik Ozge Surucu
14:20 - 14:55	65	Fabrication of thermoelectric legs and their integration into a prototype thermoelectric generator			A. Sotelo	
15:00 - 15:35	105	Towards High Temperature Thermoelectrics: Effect of simultaneous doping and defect chemistry engineering on perovskite materials			S. Rasekh	
15:35-16:00		Coffe Berek			Coffee Break	
16:00 - 16:15	109	AI-Driven Optimization of Hydrogen Storage in TiO2/CNTs Nanocomposites-Under Simple Conditions			Behrouz Nemati	Bekir Ozcelik Ozge Surucu
16:20 - 16:35	110	Machine Learning-Based Optimization of the Synthesis of TiO2/CNTs Composites via Genetic Algorithms (GA)			Sara Zandi	
16.40 - 17.05	103	Acoustic-Based Evaluation of Laser Micromachining for Enhanced Ceramic Processing			C. Ozcelik	

17:10 - 17:25	99	Laser-induced structural modifications and surface functionalization of metallic oxide thin films: HfO ₂ , ZnO and Cu ₂ O
17:30 - 17:55	95	Interplay between laser induced surface nanostructures and superconductivity on Nb thin films
18:00 - 18:15	10	Harnessing Rosa damascena Residue for Green Synthesis of Zinc Oxide Nanoparticles: Response Surface Methodology Optimization
18:20 - 18:40	20	Photocatalytic activity under sunlight by copper Oxide Thin Films
18:45 - 19:10	24	The effect of Li doping In ₂ O ₃ thin films on structural and optical properties deposited by ultrasonic spray

<https://zoom.us/j/98778761619>

<https://www.youtube.com/@ICMATSE/stream>

Alejandro Frechilla	Bekir Ozcelik Ilyas Uygur
Luis A Angurel	
Imane Adraoui	
Nour elhouda Redjough	
Bourhefir Ranida	

HALL C (HALL GAZI) (October 25 FRIDAY)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
09:00 - 9:30	12	Advances and Challenges in Solid State Electrolytes and Processing Technology for Energy Storage Devices	https://zoom.us/j/97941981938	https://www.youtube.com/@ICMATSE/streams	S. H. Siyal	Tolga Depci Ilyas Uygur Guven Cankaya
9:30 - 10:00	104	Ab Initio Computational Materials Science			E. Deligoz	
10:05-10: 35		Coffe Berek				
10:40 - 11:00	85	Extending Synchrotron X-ray Microscopy to the Laboratory – X-Ray Microscopy as a correlative imaging technique			M. S. Khoshkhoo	
11:05 - 11:25	63	Opening the Third Dimension on SEM: FIB-SEM and Laser FIB			V. Erkut	
11:30 - 11:45	45	Electrochemical synthesis of Oleic Acid coated Magnetite nanoparticles from water/ethanol media			N. Makhdiani	
11.50 -12.10	53	Electrochemical synthesis and corrosion resistance of Zn@Al ₂ O ₃ composite coatings			M. Donadze	
12:15 - 12:30	129	Investigation of the effect of composite layer thickness on low-velocity impact behaviour in fibre metal laminate materials			M. Dundar	
Break						

HALL C (HALL GAZI) (October 25 FRIDAY) Afternoon

Afternoon

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
13:40 - 14:15	19	Silica Nanoparticles and CVD Graphene for Hydrophobic Modified Surfaces	https://zoom.us/j/96337741134	https://www.youtube.com/@ICMATSE/streams	M. Al-Ruqeishi	M. Yucel Y. Ozen P. Toren Ozgun
14:20 - 14:55	201	Mechanical Alloying			C. Suryanarayana	
15:00 - 15:35	26	Scaling up Superconducting Quantum Processors: Materials and Fabrication Challenges			H. M. Nayfeh	
15:35 - 16:10	70	2D Modelling of Pentacene based TGTC OTFTs			N. A. Abdeslam	
16:15 - 16:30		Coffe Berek			Coffe Break	
16:30 - 17:05	43	Enhancing Desalination Rates of Saltwater using Superhydrophobic Nanomembranes and Machine Learning Approaches			R. Asmatulu	
17:10 - 17:55	44	Multiphase Fiber Reinforced Composites and CNT Wires for Aerospace and Defense Industries			R. Asmatulu	
17.55-18.10	69	Microstructure and the mechanical properties of homogenized and hot rolled Mg-3Zn-0.2Ca-0.3Mn alloy			L. M. Al Mashhad	
18.10-18.25	72	Development of biodegradable Mg-Zn-Ca alloys to be used in bone fracture treatments			J. F. Hassan	
18.30-19:00	203	Silicon Nanoparticles and wires			M. H. Nayfeh	
19:05 - 19:25	130	Thermoluminescence of hydrothermally grown ZnO nanorods	M. Khenfouch			

OCTOBER 26 SATURDAY

HALL B ISTANBUL (26 SATURDAY)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
09:30 - 09:50	49	Dual-Doped NCZ-AZ Cathode Material for Lithium-Ion Batteries	https://zoom.us/j/94345168230	https://www.youtube.com/@ICMATSE/streams	D. Candemir	M. Polat Gönüllü H. İ. Efker
10:00 - 10:20	28	Preparation and characterization of ZnO-based Schottky diode prepared with sol-gel method			Arab Louiza	
10:30 - 10:50	112	Illumination Effects on Capacitance-Voltage Characteristics and Negative Capacitance Behavior in Au/n-GaAs (MS) And Au/Si3N4/n-GaAs (MIS) Type Structures			M. Bucurgat	
11:00 - 11:40	100	Development of Toolpath and Integrated Workflow with Parametric Modeling Approach in Robotic Wire Arc Additive Manufacturing Method			E. F. Aslan	
11:45 - 12:20	11	Carrier Monitoring of FM Radio Spectrum Using Adalm Pluto			Senol Gulgonul	
12:25 - 12:40	131	Quality Control Analysis in the Iron and Steel Industry with Simulation Techniques			İ. Tasci	
12:45 - 13:00	128	Characterization of Pomegranate Peel, Activated Carbon and Hard Carbon Derived from Pomegranate Peel			M. Karta	

HALL A (HALL ANKARA) (26 SATURDAY)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
09:30 - 09:50	74	Mixed-Variable Bayesian Optimization for Solar Selective Absorbers	https://zoom.us/j/92566305887	https://www.youtube.com/@ICMATSE/streams	O. S. Ciftci	Osman S. Çiftçi E. Deligöz Y. Özen
10:00 - 10:20	58	Investigation of the performance of an ejector refrigeration system operating in critical mode			A. W. Eddine	
10:30 - 10:50	121	Investigation Of The Springback Behavior Of Double-Phase Steel Sheets In The V Bending Process			E. N. Duzenli	
11:00 - 11:20	122	Synthesis of Two Dimensional Hexagonal Boron Nitride on Quartz Substrates via Low Pressure Chemical Vapor Deposition Method			M. Bozkaya	
11:30 - 11:50	123	Gas Metal Arc Weldability of Strenx 700MC Steel With Flux Cored Filler Metal			S. Aksoy	
12:00 - 12:20					M. Koçak	

HALL C (HALL GAZI) (26 SATURDAY)

Morning

Time	Paper Id	Paper Name	Online Link (zoom)	Online Link (youtube)	Speaker	session chair
09:30 - 09:45	3	A review of the characterization and comparison of mechanical properties of ballistic chest plates made of SiC and B4C advanced ceramic materials			S. Yasar	<p>Alpay Ozer Ersin Bahceci Melika Ozer H.I. Efker</p>
09:50 - 10:05	4	A5356 Material Production and Characterization by Waam Technique			B. Gursu	
10:15 - 10:30	5	A Study on Production and Characterization Of Alsi10mg Alloy Using SLM Technique			Z. Tekkaya	
10:35 - 10:50	42	The Effects of WC Content in Ni Based WC Reinforced Laser Surface Coating	https://zoom.us/j/97684034923	https://www.youtube.com/@ICMATSE/streams	A. Elci	
11:00 - 11:15	88	4D Printing of Shape Memory Polymer with Digital Light Processing			N. Tatlisu	
11:20 - 11:35	71	Investigation of the Corrosion Behavior of Titanium Against Peat Corrosion			N. Cek	
11:45 - 12:00						
12.10-12.25	96	Quantum Computational Discovery of Novel High-Entropy Alloys			H. Zhuang	