

CONFERENCE PROGRAM**Sunday – December 18, 2022**

17:00-19:00

Conference Registration

Location: Istanbul Medeniyet University Ziraat Bankası Kütüphanesi, Uskudar / Istanbul

Monday – December 19, 2022

07:30-13:00

Conference Registration and Welcome Coffee

Location: Istanbul Medeniyet University Asik Pasa Konferans Salonu, Kadikoy / Istanbul:

<https://goo.gl/maps/vou73t1sDtbPri119>**Opening Speeches****Nader Javani**

Conference Co-Chair

Bestami Ozkaya

Vice Rector of Yildiz Technical University

Gülfettin Celik

Rector of Istanbul Medeniyet University

Veysel Eroglu

Member of the Parliament, Former Minister of Forestry and Water of Turkiye

Awards Ceremony

Teksan, Kontrolmatik Technologies, Pomega, Erinmotor, Uestco, Yağmur Motor, Tuzla Municipality

10:00 – 10:30

Coffee Break**Plenary and Invited Speakers**Session Chair: **Kadir Aydin**Plenary Speaker: **Ibrahim Dincer**

"Innovative Energy Storage Systems for Sustainable Communities"

Invited Speaker: **Halime Paksoy**

"Latent Heat Storage for thermal comfort in Buildings"

Invited Speaker: **Zafer Ure**

"Thermal Energy Storage Application"

12:45- 14:00

Lunch**Online presentation link:****Join Zoom Meeting**<https://medeniyet-edu-tr.zoom.us/j/95806745710?pwd=S0ZGYmFicE43M2xLSVR0eEJ2Rlo5QT09>*After attending the meeting, please choose one of the breakout rooms (ROOM A, ROOM B, ROOM C).*

Monday - Dec 19, 2022**Important Notice:** The rest of the conference, including Monday afternoon sessions, will be held in the North Campus of the University**Location:** Istanbul Medeniyet University Ziraat Bankası Kütüphanesi, Uskudar, Istanbul, <https://goo.gl/maps/4B93zsduPgZ3oGu8>**Parallel Sessions 1**






	ROOM – A	ROOM – B	ROOM – C
	Session 1: Renewable Energy and Energy Storage Systems Session Chair: Ahmet Dursun Alkan	Session 2: Thermal Energy Storage Session Chair: Yusuf Bicer	Session 3: Energy Aspects Session Chair: Gorkem Kokkulunk
14:30 - 16:00	<p>#275 "A Brief Analysis of Green Hydrogen Production, Storage and Use in Natural Gas for a Sustainable Community" <i>M Ozturk & I Dincer</i></p> <p>#9978 "Evaluation of Energy Storage Tanks in Multi Objective Optimization of Cogeneration Plant" <i>H Hajabdollahi & M Zargarraeiszadeh</i></p> <p># 2727 "Development And Assessment Of A Renewable-Based Energy System With Solar, Hydro And Geothermal Inputs And Energy Storage Options", <i>A. Abu-Rayash & I. Dincer</i></p> <p>#6543 "A Solar-Driven Charging Station Integrated with Liquid CO₂ as an Energy Storage Option" <i>D Erdemir & I Dincer</i></p> <p>#1203 "Energy Storage Technologies Application Potential for Grid-Connected Renewable Sources" <i>HA Behabtu, AA Kebede & KA Fante</i></p>	<p>#4647 "Latent Heat Thermal Storage in Metal Foam Filled with Nano-Enhanced Phase Change Material" <i>F Iachachene, H Cheradi, M Kabache & Z Haddad</i></p> <p>#2518 "Analysis of Negative Thermal Resistance Between Pipes Within Borehole for a Vertical Single U-Tube Ground Heat Exchanger" <i>Q Liao, L Li, X Liu & Q Peng</i></p> <p>#4856 "Thermal Analysis of a Novel Solar Photovoltaic/Thermal System (PVT) for Delhi Region" <i>V Raj, SS Bhogilla & UR Singh</i></p> <p>#5280 "Exergetic Analysis and Assessment of a Sensible Heat Storage System" <i>D Yalcinkaya, H Gunerhan & A Hepbasli</i></p> <p>#7133 "Investigating Encapsulation of Phase Change Materials with Calcium Carbonate Shells for Thermal Energy Storage Applications" <i>N Şahan</i></p> <p>#8111 "Thermal Analysis of a Solar Powered Rankine Cycle Using Transcritical Carbon Dioxide for CCHP Application" <i>M Hussain, UR Singh & SS Bhogilla</i></p>	<p>#1531 "Thermodynamic Analysis of a Two-Phase Flow Towrd Flow Parameters Characterization" <i>G Vakilinejad, A Al Abri & T Al Wahaibi</i></p> <p>#1946 "Improved Corrosion Resistance of Ball BurnishED API X52 Steel" <i>H Hamid, S Belabed & P Quang</i></p> <p>#6362 "Convective Heat Transfer Due to 1.5% TiO₂/Water Nanofluids in a Tube" <i>N Dukhan & A Radmanesh</i></p> <p>#8854 "Optical and Electrical Properties of Thin Films of CuO Deposited by Spray Pyrolysis Technique: Influence of Three Time of Annealing" <i>B Bouzid & D Radouane</i></p> <p>#9451 "Heat Transfer Enhancement Using TiO₂ Based Nano Fluid in Shell & Tube Heat Exchanger" <i>AA Memon, L Kumar, Ki Harijan & AG Memon</i></p> <p>#7528 "Study of Electronic and Thermodynamic Properties of Cubic Perovskite BiGaO₃" <i>G Bachir, H Malia & F Messaoud</i></p>

16:00-16:30**Coffee Break****Poster Sessions 1: 16:00-17:00**

#177	"A Study on Electromagnetic Force in Permanent Magnet Synchronous Motors with Rotor Eccentricity" <i>A Bouzida, R Abdelli & A Boudouda</i>
#2777	"Machine Tool Performance Analysis Using Artificial Intelligence (ANN)" <i>L Laouar, M Dib, M Bourebia, AM Mebarek & N Bouchelaghem</i>
#3077	"Variable Forgetting Factor RLS Algorithm for Acoustic Echo Cancellation" <i>M Benziane, M Bouamar, M Makdir, S Medjedoub & A Arabi</i>
#6905	"Economic Dispatch Problem for Cogeneration Systems Solved by Improved Harmony Search Algorithm" <i>AK Lahouari, B Fatima Zohra & B Belkacem</i>
#7607	"Performance Evaluation of IEEE 802.11n in WLAN" <i>B Saoud & S Medjedoub</i>
#8183	"Fabrication and characterization of Erbium Doped Magnesium Oxide Nanoparticles" <i>Z Quili, A Imene, B Boudine, S Miloud & H Ouahiba</i>
#8661	"Characterization and Reactivity in Propene Oxidation of H ₃ +xPMo ₁₂ -xVxO ₄₀ Acids Supported on Mesoporous SBA-15" <i>C Rabia & S Benadji</i>
#8883	"Evaluation of the Protective Performance of Silicon-Based Coatings on Carbon Steel in HCl Solution: Seems to the Rate of Nitrogen Added to TMDSO" <i>D Amel & F Hana</i>
#6647	"Energy Storage for a PV Chain" <i>L Benzaid & S Lekhchine</i>
#8269	"An Optimal Hybrid PV/Wind and Biomass" <i>S Belhour & K Ferouani</i>
#4016	"Experiences Gained and Lessons Learned in Using Battery Energy Storage System in Istanbul Low Voltage Pilot Grid" <i>U Deveci, SC Yilmaz, NS Cakar, RA Aydin & DC Bayram</i>
#942	"Structural and Electronic Properties of BaSrLiH ₃ for Hydrogen Storage Materials" <i>B Brahim & B Khatir</i>
#5418	"Control of Hybrid Energy System: Photovoltaic/Battery Storage" <i>B Ayachi, A Bahri, O Boudebbouz & L Boukalkoul</i>
#1120	"Solar Battery Bank Management Strategy" <i>B Ayachi & A Bahri</i>
#6181	"Design and Synthesis of Water-soluble Polypyrrole-Polybis(4-oxy benzene sulfonic acid)phosphazene Composite Polymers as High Performance Layered Lithium Rich Cathode Binder for Li-ion Batteries" <i>E Guney, H Duyar, E Büşra Celebi, F Hacvelioğlu</i>

Monday – December 19, 2022

Parallel Sessions 2

	ROOM – A	ROOM – B	ROOM – C
	Session 4: Electrochemical Energy Storage Session Chair: Ghassan Chehade	Session 5: Hydrogen Storage, Material and Applications Session Chair: Halil Demirdag	Session 6: Renewable Energies Session Chair: Emre Teksan
16:30 – 18:00	<p>#1866 “Battery Lifetime Prediction Using Ensemble and Non-Ensemble Machine Learning Algorithms” <u>FJ Js, EG Varuvel & A Sonthalia</u></p> <p>#5336 “Comparing the Performance of Boosting and Bagging Ensemble Methods for Predicting the Remaining Useful Life of Lithium Ion Battery” <u>EG Varuvel, FJ Js & A Sonthalia</u></p> <p>#4504 “Experimental Investigation of Li-Ion Battery Thermal Management Based on the Liquid-Vapor Phase Change in Different Modes of Heat Transfer with the Environment” <u>M Goodarzi, M Ameri & H Jannesari</u></p> <p>#7908 “Phase-Change Enhancement in Latent Energy Storage Systems Equipped with Full and Segmented Radial Fins”, <u>A Moradian, M Ameri & S Majidi</u></p> <p>#7997 “Proposing a Comprehensive End-to-End Scheme to Support Next-Generation Battery Research and Technology” <u>E Imanpourjadaei, N Javani & S Rahnamayan</u> </p> <p>#305 “Recent Advances and Prospects in Lithium-Ion Battery Thermal Runaway Mitigation and Prevention Techniques” <u>PK Nema, M Palanisamy & R Thangavel</u> </p>	<p>#3184 “An Evaluation of Boil-Off Gas Recovery Methods for Hydrogen Production and Storage from Onboard Ammonia Decomposition” <u>D Andriani & Y Bicer</u></p> <p>#8288 “An Overview of Underground Natural Gas and Hydrogen Storage with CO₂ Sequestration Technology” <u>M Alshafi, AS Abushaikh & Y Bicer</u></p> <p>#6409 “Performance Assessment of a Metal Hydride Compressor Based Hydrogen Refuelling Station Powered by Renewable Energy” <u>UR Singh & SS Bhogilla</u></p> <p>#8256 “Fuel Cell Energy Harvesting on Hydrogen Storage Inclusion to Microgrid Power Optimization” <u>AN Afandi</u></p> <p>#5969 “Numerical Study of Heat Transfer of Hydrogen Combustion in Noble Gases Atmosphere in Compression Ignition Engine” <u>N Mat Taib, MRA Mansor, WMF Wan Mahmood & H Koten</u> </p> <p>#1245 “Providing the Power Demands of an Administrative Organization by a SOFC with OFMSW” <u>SA Abdollahi & N Asgari</u> </p> <p>#4042 “Performance Examined a Solar Energy Sourced Combined Plant with s-CO₂ Power Plant” <u>YE Yüksel, F Yılmaz & M Ozturk</u> </p>	<p>#709 “Design of a BMC Bidirectional DC/DC Management Converter for a Solar Battery Storage System” <u>N Ben Si Ali, S Ghoudelbourk, N Benalia, N Zerzouri & A Rechach</u></p> <p>#6131 “Hybrid Energy Storage System (HESS) for Standalone PV Microgrid” <u>S Ghoudelbourk, N Ben Si Ali & A Rechach</u></p> <p>#4751 “Techno-Economic Comparison of Solar Cooling System” <u>P Anand, H Niyas & SS Bhogilla</u></p> <p>#2999 “Hybrid Controller Designing for a Microgrid Frequency Control Including Electric-Vehicle and Storage Systems” <u>H Shayeghi, R Mohajery, A Rahnama, N Bizon & P Thounthong</u></p> <p>#6712 “Electrical and Optical Characterization of Sn Doped CuO Obtained by Spray Pyrolysis for Application in Renewable Energy” <u>D Radouane, B Bouzid & A Nihed</u></p> <p>#3626 “Sizing of a “PV –Off Grid” Site with Battery Storage- a Study of a Real Case” <u>M Rezki, I Griche & A Bouzida</u></p>
	19:30-21:30 Gala Dinner <i>The shuttle busses will leave the conference venue (Istanbul Medeniyet University, Ziraat Bankası Kütüphanesi) at 18:20</i> <i>Gala Dinner Location: TCDD Fenerbahçe Sosyal Tesisleri, https://goo.gl/maps/uYYxtM61YATXdAaEA</i>		

Tuesday – December 20, 2022






09:00 – 10:30	Room – A
	Location: Istanbul Medeniyet University Ziraat Bankası Kütüphanesi, Uskudar / ISTANBUL (https://goo.gl/maps/4B93zsduPgZ3oGu8)
	Invited Talks Session Chair: Adnan Midilli
	Cengiz S. Ozkan “Prospects in Battery Energy Storage Over the Next Decade”
	Yucel Sahin “A novel method for the production of doped-graphene based electrodes used in electrochemical energy storage systems: Yucel's method”
	Jo Darkwa “Decarbonisation of the Buildings Sector – Which Way?”
10:30-11:00 Coffee Break	

Parallel Sessions 3

	ROOM – A	ROOM – B	ROOM – C
	Session 7: Thermal Energy Storage Session Chair: Arif Hepbasli	Session 8: Renewable Energy Systems Session Chair: Adnan Midilli	Session 9: Electrochemical Energy Storage Session Chair: Yucel Sahin
11:00 - 12:30	<p>#1062 “Experimental and Computational Investigation of Thermal Energy Storage In Heat Exchangers Containing Sodium Acetate Trihydrate” <i>M Tortlak, A Halač & N Delalić</i></p> <p>#3210 “Numerical Study of Fins Effect on Electronic Component Cooling Under Forced Convection Condition” <i>FZ Benouis, Y Ould Amer & S Meziane</i></p> <p>#4510 “Energetic and Exergetic Analysis of Solar-Based Sensible Thermal Energy Storage System in Charging Process Using TRNSYS”, <i>O Gök, E Alptekin, MA Ezan & A Ereğ</i></p> <p>#5349 “Effect of Packing Diameter on Performance of High Temperature Packed-Bed Systems” <i>B Koçak & H Paksoy</i></p> <p>#8902 “Development of Thermal Energy Storage Systems Based on Nanoparticle-Enhanced Phase Change Materials”, <i>R Haghighi Khoshkhou & H Masoumi</i></p> <p>#5701 “Chemistry and Energy Storage, a Bibliometric Study for the 100th Year of the Republic of Türkiye”, <i>S Emir & H Paksoy</i></p>	<p>#1939 “Process Simulation of Torrefied Biomass Gasification In A Bubbling Fluidized Bed Gasifier”, <i>Kaan Erdem & Duygu Gunduz Han</i></p> <p>#2851 “Modeling and Performance Evaluation of Municipal Solid Waste Gasification in a Bubbling Fluidized Bed” <i>D Gunduz Han & K Erdem</i></p> <p>#3239 “Effect of Nature Buffer, Cisse Thikness Layers and Temperature on Solar Cells Performance Using Scaps-1D Simulation Program” <i>G Mohamed Amine</i></p> <p>#4349 “Study and Simulation of MPPT Algorithms for Buck Converter-Based PV System on Matlab/Simulink” <i>I Nora, B Nadia, B Nadia, R Abdelkarim & S Ghoulbourk</i></p> <p>#6366 “Coverage by a Mix of Renewable Energies the Needs of a Detached House”, <i>T Baki & D Nehari</i></p> <p>#5489 “Natural Ageing of Biobased Composite from Alfa Fiber / Polymer Matrix: Effect of Treatment with Zinc Oxide Nanoparticles” <i>M Khaldi, MM Bouziane & H Bougherara</i></p>	<p>#831 “Growth of TiS₂ Nanostructure Suitable for Lithium & Sodium Ion Battery” <i>P Dehghan, E Ansari, S Hoornam, A Etghani, M Yasoubi, Z Sanaee & S Mohajerzadeh</i></p> <p>#3688 “Diagnosis Fault of Semi-Conductor for Power Converters in Solar Photovoltaic System with Battery Storage Connected to Grid” <i>M Hichem, B Tahar, B Khoulood & D Djalel</i></p> <p>#4632 “Effect of Cellulose Acetate on the Energy Storage Performance of Polyaniline/ Cinnamic Acid / Cellulose Acetate Nanocomposite Supercapacitor Electrode” <i>Z Ghebache, M Triaki, A Benzerafa, N Boudieb & F Hamidouche</i></p> <p>#7979 “Elaboration and Electrochemical Properties of GCE@Ni(OH)₂ThF Modified Electrode for Supercapacitor Application” <i>A Benchettara, SE Berrabah & A Benchettara</i></p> <p># 4576 “Heat transfer performance of water-based carbon nanotube nanofluids in microchannel heat exchangers”, <i>M Armağan, A Arbak, E Erturk, S Pusat, E K Demir, S Karagoz & Y Karagoz</i></p> <p>#8645 “Technical and Economic Comparative Analysis of Lead-Acid and Lithium-Ion Batteries for Stationary Storage Applications” <i>AA Kebede, HA Behabtu & T Jemal</i></p>
	12:30-14:00 Lunch		

Tuesday – December 20, 2022

Parallel Sessions 4

	ROOM – A	ROOM – B	ROOM – C
	Session 10: Renewable Energy Systems and Energy Storage Session Chair: Ercan Erturk	Session 11: Renewable Energy Systems Session Chair: Tugba Tetik	Session 12: Thermal Energy Storage Session Chair: Edwin Geo Varuvel
14:00 - 15:30	<p>#9037 “Assessment of Trigenation Energy Systems with Storage Options” <u>F. Sorgulu & I Dincer</u></p> <p>#319 “Geothermal Resources of Yozgat Province and Their Usage Areas” <u>B. Bickici Arıkan</u></p> <p>#9236 “Energy Storage Role in the Offshore Wind Energy Systems” <u>U. Durğunay, N. Javani, Z. Yumurtacı</u></p> <p>#9936 “Energy and Exergy Analysis of a Hydrogen Fueled SI Engine”, <u>A. Arbak, Y. Karagoz, EK Demir, E. Teksan, E. Tuncer & N. Javani</u></p> <p>#4209 “A Policy on Integrated Green Energy Storage” <u>M. Ozsaban & A. Midilli</u> </p> <p>#4875 “A New Solar and Geothermal Based Integrated Energy Production and Storage System” <u>A. Karaca & I. Dincer</u> </p>	<p>#2013 “Effects of Factors of Photovoltaic System on Optimum Power Generation” <u>M. Bou-Rabee</u></p> <p>#6764 “Effect of Light Wood Precast Concrete on Hygrothermal and Energy Transfers in the Building” <u>BK Ben Ammar & B. Mezghiche</u></p> <p>#8906 “Numerical Study of a Photovoltaic Cell”, <u>B. Ouassila</u></p> <p>#8398 “Multi Source Power Quality Enhancement Using a Power Active Filter” <u>D. Rachid, G. Hachemi & B. Brahim</u></p> <p>#9116 “Simulation of a Photovoltaic System by Software Polysun” <u>S. Mohamed, K. Haiat, G. Khaoula & S. Hibat Allah</u></p> <p>#8662 “The Potential Using of Ferries to Grid System in Istanbul City Lines”, <u>AS Karakurt & V. Bashan</u> </p>	<p>#9489 “A Theoretical Study of Thermal Properties of Porous Material Used in Building” <u>N. Sotehi</u></p> <p>#6440 “A Comparative Study of Molten Salts and Liquid Metals as Thermal Energy Storage Media in Concentrated Solar Power Plants” <u>MS Naqeeb Jagirdar, H. Niyas & SS Bhogilla</u></p> <p>#5937 “Hydrogen Heating System for Improving the Trailer Thermal Comfort During Cold Nights” <u>S. Benoumhani, N. Saifi, B. Dokkar & MC Benzid</u></p> <p>#1855 “A Numerical Study on a Phase-Change Process in a Cylindrical Capsule” <u>H. Genceli, M. Asker & M. Al-Raw</u></p> <p>#7778 “Experimental Investigation on the Effect of Porosity in the Storage Tank on the Thermodynamic Performance of an Encapsulated Ice Thermal Energy Storage Tank” <u>B. Turgut, D. Erdemir & N. Altuntop</u> </p> <p>#8757 “A Review of Phase Change Materials Used in Li-Ion Battery Thermal Management Systems” <u>E. Altuntop, D. Erdemir, V. Ozceyhan & Y. Kaplan</u> </p>
	15:30-16:00 Coffee Break		








Poster Session 2: 15:30-16:30

Location: Istanbul Medeniyet University Ziraat Bankası Kütüphanesi, Uskudar / ISTANBUL

15:30 - 16:30	<p>#1991 “Heat Recovery Process for Improving Solar Adsorption Cooling Machine’s Performance” <u>W. Chekirou, B. Nahman & K. Ahcen</u></p> <p>#614 “Adsorbent/Adsorbate Pairs Used in Solar Cooling Adsorption Systems” <u>W. Chekirou, B. Nahman & K. Ahcen</u></p> <p>#3885 “Biodiesel Produced from the Transesterification of a Vegetable Oil Over 12-Tungstophosphoric Acid in Bulk Form and Supported on Silica” <u>C. Zaourar, Y. Idrissou & T. Mazari</u></p> <p>#4021 Nature of the Material and Effect on the Blades of a Wind Turbine (NACA 2414)” <u>S. Belhour & K. Ferouani</u></p> <p>#4139 “Photodegradation Study of Cationic Dyes by Zinc Ferrite Catalyst Under Sun Light” <u>K. Rouibah, FZ. Akika, H. Ferkous & S. Boukerche</u></p> <p>#7388 “Impact of Setting Transition Metals on Structural Properties of [Ni (C₇H₇NO₂)₂(NO₃)₂(H₂O)₂] Phase” <u>Y. Bouaoud, M. Damous, T. Benlatreche, H. Merazig & G. Dénès</u></p> <p>#8322 “Thermal Properties of Sodium Acetate Trihydrate and the Effect of Water Content on the Super-Cooling” <u>A. Dobraca, S. Metović, M. Torlak & N. Delalić</u></p> <p>#8559 “Damage Mechanisms of an Eco-Composite Material Application in Energy Storage” <u>SA Benmansour, A. Ferouani, A. Benmoussat, A. El Mahi, M. Benramdane & A. Hocini</u></p> <p>#8942 “Ab Initio Study of the Ground States, Electronic and Thermodynamic Properties of the Intermetallic Hydride Compound FeTi” <u>R. Boulechfar, H. Meradji & S. Ghemid</u></p> <p>#2729 “Influences of Stacking Sequences on the Strength of Treated Kenaf/Carbon Fibers Reinforced Epoxy Hybrid Composites” <u>B. Bouhamida, B. Aicha & M. Abderrazek</u></p> <p>#6372 “Influence of Energy Transfer in a Negative Corona Discharge DC by Hydrodynamic Plasma Simulations” <u>AK Ferouani, SA Benmansour, C. Ougherb & M. Lemerini</u></p>
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Tuesday – December 20, 2022

Parallel Sessions 5

	ROOM – A	ROOM – B	ROOM – C
	Session 13: Thermal Energy Storage Session Chair: Nader Javani	Session 14: Hydrogen Storage Material Session Chair: Ercan Erturk	Session 15: Energy Aspects Session Chair: Yasin Karagoz
16:30 - 18:00	<p>#5991 “Development of A Composite and Electrolyte Membrane Based On PVDF /Li+ for the Accumulator” <i>F Benhacine, O Abderrahmane, FM Lounis & AS Hadj Hamou</i></p> <p>#7208 “An Integrated Energy System with Molten Salt Heat Storage for Multiple Useful Outputs” <i>M Temiz & I Dincer</i></p> <p>#522 “Electroplating Anode Active Materials For Lithium Ion Batteries”, <i>MN Ates</i></p> <p>#279 “Design of New Non-Isolated High Gain Converter Without Coupled Inductor for Fuel Cell Application” <i>R Rajesh, N Prabaharan, TK Santhosh, T Vigneysh & M Salem</i> </p> <p>#7151 “Development and Characterization of Doped Magnesium Hydroxide for Medium Heat Storage Application” <i>A Kur, J Darkwa, J Calautit, R Boukhanouf, M Worall, N Albeladi, R Mokaya, A Laybourn, K Robertson & S Roger-Lund</i> </p> <p>#2079 “Intergrated Phase Change Material Windcatcher System For Hybrid Cooling And Ventilation In Tropical Buildings” <i>O Eso, J Darkwa & J Calautit</i> </p>	<p>#9546 “Physical and Electrochemical Features of MgFe₂O₄ for Hydrogen Production” <i>M Benlambarek, N Salhi, R Benrabaa, A Boulahouache, SE Berrabah & M Trari</i></p> <p>#1717 “Hydrogen Energy Storage Options for Various Renewable Energy Resources” <i>GK Karayel, N Javani & I Dincer</i></p> <p>#3914 “Ab Initio Calculations of the Structural and Electronic Properties of SrLiH₃ and BaLiH₃ Compounds for Hydrogen Storage Materials” <i>B Brahim & B Khatir</i></p> <p>#3768 “Electrochemical Hydrogen Production Performance of Aluminum Alloys: A Comparison of Commercial Alloys in Different Alkaline Solutions” <i>A Danaci, N Kup Aylikci & V Aylikci</i> </p> <p>#4923 “Optimal Techno-Economic Analysis on Hydrogen Energy Storage Integrated PV/Wind Hybrid Stand-Alone Microgrid” <i>Kalidas P & S Sundaram</i> </p> <p>#655 “Comparative Study on Non-Isolated DC-DC Converters Topologies for Fuel Cell Vehicles Application” <i>S Okba, R Saadi, MY Hammoudi & IE Tinedert</i> </p>	<p>#146 “Enhancement of Thermoelectric Properties by Na and Y Substitution into CaMnO₃” <i>G Çetin, İ Ergin, M Gürsul, B Özçelik, A Sotelo & MA Madre</i></p> <p>#8684 “Prediction of Coal Mine Methane Gasses of the U.S.A by Arima Method” <i>G Daloglu, F Çemrek & H Koten</i></p> <p>#6101 “CASO-CFAR Detector for Mimo Radar in Homogeneous and Non-Homogeneous Gamma Clutter” <i>MA Bouteldja & M Baadeche</i></p> <p>#3136 “Parameters Identification with Experimental Verification of Induction Motors by Using Different Metaheuristic Optimization Algorithms” <i>R Houili, A Titaouine, MY Hammoudi & A Betka</i></p> <p>#3381 “Energy Analysis and Working Fluid Selection for Simple Vapor Compression Cycle with Suitable Refrigerants as Alternatives to R134A” <i>AA Memon, MW Chandio, F Qureshi, L Kumar & AA Memon</i></p> <p>#9842 “An Analysis of Mechanical Engineering Studies” <i>Umit Gunes</i> </p>



Wednesday – December 21, 2022

Parallel Sessions 6

	ROOM – A	ROOM – B	ROOM – C
	Session 16: Renewable Energy Systems Session Chair: Ali Bahadır Olcay	Session 17: Energy Storage Applications Session Chair: Saban Pusat	Session 18: Energy Aspects Session Chair: Duygu Gunduz Han
09:00 - 10:45	<p>#8050 "Power Quality Improvement Using Fact Device Powered by Photovoltaic System" B Brahim</p> <p>#5679 "An Interpretive Model to Analyze Ocean Energy Challenges" A Trivedi</p> <p>#9934 "Exergy and Exergoeconomic Analysis of Dry Reforming Technology Coupled with Gas Turbine Cycle" S Alizadeh, M Valizad & M Irani</p> <p>#5274 "Energy Efficiency for Fan-Electric Motor Systems Using Frequency Inverters", A Yalabık & S Pusat</p> <p>#9805 "Orbital Energy Modelling with DFT Method" H Gümüş, C İpek & Ç Şahin </p> <p>#6632 "Mathematical Optimization of Railway Gravitational Lift Energy Storage" V Ramnath </p>	<p>#7684 "PHES System Using a Centrifugal Pump for Buildings" A Babadağ & Z Yumurtacı</p> <p>#9804 "Characterization of NiO Thin Films Prepared by Sol-Gel Spin Coating Technique: Effect of Film Thickness" D Blizak Meriem & S Ysbaa</p> <p>#6341 "Drive of Electric Vehicles by Switched Reluctance Motor and Its Control" A Rechach, S Ghoudelbourk & N Ben Si Ali</p> <p>#1762 "Harmonic Elimination and Reduction in Pwm Inverter: With Three-Phase Induction Motors Using Iterative Numerical Method" R Houili, MY Hammoudi & A Titaouine </p> <p>#4322 "Use of Solar Energy to Produce Hydrogen Fuel", SA Abdollahi, A Rahimi Jafari & AM Mousavi </p> <p>#8619 "Numerical Analysis of Mechanical Behavior of Gasket Under Different Thicknesses and Clamping Forces" M Taş, PJ Alphonse, B Boğa, H Atasoy, T Meşeli & G Elden </p>	<p>#7558 "Substation Technology Selection Using an Integrated AHP-Topsis Based Approach" V Trivedi</p> <p>#7669 "Impact of Doping on Structural Properties of Bi2212 Phase" B Nora, S Hadda & B Chahrazed</p> <p>#3273 "The Effect of Compositional Disorder on ZnxCd1-xS Energy Band Structure and Optical Properties" F Mezrag & N Bouarissa</p> <p>#4367 "Osgo-Cfar Detector for Mimo Radar in Weibull Distributed Clutter" B Mohamed & MA Bouteldja</p> <p>#5102 "Mechanical Tension Control of Winding Systems For Paper Webs" G Hachemi, D Rachid & B Brahim</p> <p>#1064 "A Mono-Polar HVDC Link Simulation with AC and DC Link Failures" M Mohamed & M Mohamed </p>
	10:45-11:00 Coffee Break		

Wednesday – December 21, 2022

Parallel Sessions 7

	ROOM – A	ROOM – B	ROOM – C
	Session 19: Energy Aspects Session Chair: Hadi Genceli	Session 20: Energy Aspects Session Chair: Altay Arbak	Session 21: Energy Aspects Session Chair: Bugrayhan Bickici Arkan
11:00 - 12:45	<p>#8189 "Prediction Study of Crystal Structure and Optoelectronic Properties of WCLX (X = 3 to 6)" Z Zahra, C Tayeb, F Messaoud & G Bachir</p> <p>#7750 "Theoretical Study on the Effects of Ligands and Coordinations in the Trinuclear Sandwich Complexes of [Pd₃(COT)₂(L)] + 2(COT = C₈H₈ and L = H₂O, CO, N₂, HCN, HNC, NH₃, PH₃, PCl₃, PF₃, CS et CH₂)", B Akila & Z Bachir</p> <p>#9176 "Thermo-Physical Investigations of Dithymoquinone Molecule by Using Density Functional Theory (DFT)" <u>C İpek</u>, H Gümüş & Ç Şahin</p> <p>#4500 "Density-Functional Study -Optoelectronic Properties of the Compound BiGaO₃" <u>B Karim</u></p> <p>#2289 Performance Assessment of a Decarbonized CHP Plant, Including Photovoltaic Panels and Re-Electrification of Hydrogen", <u>P Heidarnejad</u>, S Jafarmadar & Z Yumurtaci</p> <p>#8482 "Energy And Exergy Analyses of Single and Double Loop Kalina Cycles", G Gonca, Y Karagöz, EK Demir & S Pusat</p> <p>#5803 "Design and Application of Fuzzy Logic on Arduino Mega MPPT Using MATLAB/Sumilink" <u>Mohamed</u> & G Aicha </p>	<p>#9425 "SMIB Stability Enhancement Using Storage and PID Based On ANFIS" B Nadia, BSA Nadia, R Abdelkrim, G Sihame & Z Noura</p> <p>#6437 "Pipeline Corrosion Due to the Electromagnetic Pollution Caused the High Voltage Transmission Energy Systems" O M'hamed, T Omar, I Rachid & B Ahcene</p> <p>#9950 "Bearing Remaining Useful Life Prediction: Baseline Study" T Boukra & B Ayachi</p> <p>#3325 "H_∞ MVT Observer Based Controller of PMSM Drive Using Convex Optimization" <u>K Mimoune</u></p> <p>#4892 "Investigation of the Effect of Extreme Lean and Cold Combustion on NOx Emissions in Hydrogen Fueled SI Engine", AE Teksan, E Tuncer, Y Karagoz, A Arbak & S Pusat</p> <p>#3464 "Evaluation of District Heating Systems for Turkey", <u>S Pusat</u>, & Y Karagoz</p> <p>#6954 "Assessing Filterability Properties of Higher Biodiesel Blends Using Filter Blocking Tendency and Filter Rig Test" <u>Y Pramudito</u>, NA Fathurrahman, AS Auzani, R Anggarani, CS Wibowo & B Sugianto </p>	<p>#223 "Synthesis, Electrochemical Studies of a New Inhibitor in Acidic Solution" <u>S Boufas</u></p> <p>#2790 "The Effect of Cu Percentage on the Thermal Behavior of Dynamic Contacts Copper-Steel, Brass-Steel and Bronze-Steel" B Choubella, B Ali & Z Hamid</p> <p>#1679 "Development of Software for the NC Programs Optimization" M Rahou, S Fethi & Abdelkader Rahmoun</p> <p>#1064 "A Mono-Polar HvdC Link Simulation with AC and DC Link Failures", Mankour Mohamed & M Mohamed</p> <p>#2424 "Optimal Sliding Mode Controller for Attitude Tracking of Flexible Spacecraft" T Abdenacer, H Somia & B Mohamed</p> <p>#2766 "X-Ray Diffraction Study of Ordering in the Ternary Ti-Al-C Lightweight Metallic Alloys" S Boukhessaim & A Guecem</p> <p>#2971 "Experimental Investigation of The Effects of Biodiesel Fuels on The Performance And Emissions of The Internal Combustion Engine", M Saraç, A Tuğrul Pamuk, G Kökkülünk, A Arbak & Y Karagöz</p> <p>#5595 "Performance Analysis of Kalina Cycle (Kc)-Organic Rankine Cycle (Orc) Combined Waste Heat Recovery System For A Container Vessel", G Gonca, Y Karagöz, EK Demir & S Pusat</p>