

PROGRAMME

PAPER SECTION (after lunch) - CASA UNIVERSITARILOR - (14:30 - 17:30)

TIME	16.12.2025								17.12.2025									
	Low-Carbon Technologies			Practical and experimental technologies			Hydrogen Power		A.I. and Clean Energy			Hydrogen Practices			Hydrogen Policies and Economics			
	CHAIR: Nicoleta Cloateră			CHAIR: Horatiu Roibu			CHAIR: Liviu-Andreea Dina CO-CHAIR: Paul-Mihai Mircea		CHAIR: Marcel Nicola			CHAIR: Andreea Kellenberger			CHAIR: Paul-Mihai Mircea CO-CHAIR: Diana Ban (Tutici)			
	No.	AUTHOR(S)	PAPER	No.	AUTHOR(S)	PAPER	No.	AUTHOR(S)	PAPER	No.	AUTHOR(S)	PAPER	No.	AUTHOR(S)	PAPER	No.	AUTHOR(S)	PAPER
14:30	1	Aboubakr Sarah, Rizolu Alexandru, Zuleet Adnana, Buga Mihaela, Vlad Alexandru	Characterization of In-Situ Sodium Deposition in Anode-Free Sodium Metal Systems OE8	1	Liana-Simona Sblmă, Clementina Sabina Moldovan and Marian Ciupercăanu	Determining Embedded Emissions in Metallic Products by Using GHG Intensity as Scientific Metric and Reporting The Results so as to Comply CBAM Standards OE10	1	Jaroslav Milewski	Concept of a Solid Oxide Electrolysis-Molten Carbonate Fuel Cell Hybrid System to Support a Power-to-Gas Installation OH3	1	Marcel Nicola, Claudiu-Ionel Nicola	Improved Performance Control of PV Array and Battery Hybrid System Based on PI Controller Tuned With Grey Wolf Optimization Algorithm IO3	1	Andreea Kellenberger, Delia Duca, Mircea Laurentiu Dan, Mădălin Bozeşan-Drehe, Nicolae Vasilich, Roxana Muntean, Ulrich Rost, Florian J. Wirkert, Michael Brodmann, Aldo S. Gago, K. Andreas Friedrich	Evaluating corrosion resistance and in-situ performance of copper bipolar plates with protective Nb and Ti-coatings for proton exchange membrane water electrolysis OH4	1	Cristian GHEORGHIU, Diana BAN, Eduard MINCIUC, Vladimir TANASIEV	The financial and economical assessment of integrating Green Hydrogen in the transition towards environmental sustainability of data centres OH6
14:45	2	Nicoleta Cloateră, Mihaela Mureşanu, Cristian Tigă, Cezar-Ionuţ Spînu	Pathways to Sustainable Energy in Modern Society: Ceramic Nanomaterials for (Photo)Electrochemical Energy Generation OE9	2	Horatiu Roibu	From Water Storage to Renewable Power: A Case Study on Ialnitza Reservoir and its Wider Relevance for Eastern Europe OE13	2	Dr. Michaela Ibrion and Prof. Amir. R. Nejad	Landscape of Offshore Energy Hubs, Critical Raw Materials and Green Hydrogen OH5	2	Claudiu-Ionel NICOLA Marcel NICOLA	Disturbances Classification in Power Quality Using K-Nearest Neighbors and Discrete Wavelet Transform Analysis Based on Low-Cost Hardware IO4	2	Francisca-Georgiana CHIRIŢĂ, Olga BUCOVETCH, Ioan BŢIU-ESTRĂTE, Răvan Mihai DOBRESCU	Green Hydrogen in Romania's District Heating Systems – Economic Impacts on End-Consumers and Risk Assessment OH7	2	Diana BAN (TUTICI), Cristian GHEORGHIU, Eduard MINCIUC, Vladimir TANASIEV	Technical Analysis of a Hydrogen-Powered Backup Energy System for a Data Center OH11
15:00	3	Hyunwoong Park	Upconversion of Biogas CO2 Using Gas-Diffusion Dendritic Bismuth Electrocatalysts OE16	3	Mustapha Farji	Numerical Study of Solar-Heated Concrete/PCM Wall Performance in Three Moroccan Climate Zones OE25	3	Jaroslav Milewski	Separating CO2 from Flue Gases Using a Molten Carbonate Fuel Cell OH17	3	Sebastian Sblmă, Liana-Simona Sblmă	Performance Evaluation of GPU-Enhanced Multithreaded Algorithms for Optimizing Large-Scale High-Precision Matrix Multiplication OE5	3	Geana Elisabeta-Irina, Ciucure Corina Teodora, Constantin Andreea Adelina, Ionetea Roxana Elena	Biohydrogen Production from Lignocellulosic Biomass: Comparative Evaluation of Agro-Industrial Residues OH8	3	Ahmet Faruk Kilicaslan, Ibrahim Dincer and Ali Khalvati	Hydrogen Production from Waste-Activated Sludge Using a Membraneless Bioelectrochemical Reactor OH23
15:15	4	Adnana Spînu Zuleet, Adina Mellinte, Sarah Aboubakr, Robert Markowski, Mihaela Buga, Alexandru Vlad	Performance of a New Coordination Polymer as a Positive Electrode Material for Calcium-Ion Storage OE17	4	Daniel Truta, Mihai Ionescu, Ovidiu - Dădian Mihală, Popa Teodor, Stefan Seitan, Hermina Deliu	Aspects Regarding Modernization of High Power Laboratory for Limiting the Effects Due to Electromagnetic Fields IO5	4	Seyma Kil Acar, Hasan Sadikoglu, Ibrahim Dincer	Investigation of Renewable-Based Hydrogen and Ethanol Production System OH19	4	Mihaela Tinca Udristioiu, Youness El Mghoughi	Unravelling the Impact of NOx, CO, and VOCs on Tropospheric Ozone Formation: Insights from Statistical and Causal Analysis OE6	4	Hyunwoong Park	Saline Water Electrolysis With Selective Oxygen Evolution Reaction vs. Chlorine Evolution Reaction OH13	4	Berkay Sahin, Adnan Midilli	Techno-Economic Analysis of PEM Electrolyzers Using Renewable Surplus OH9
15:30	5	Hurmus Gursu and Ibrahim Dincer	Experimental Assessment of Hydrogen Evolution in Alkaline Media OH27	5	Ionescu Mihai, Iovan Daniela, Poenaru Andrei-Alexandru, Boncea Marius, Mihală Ovidiu, Stefan Seitan	Experimental Study on the behaviour of a 400 kV Insulator String with Glass Insulators under Power Arc Conditions IO6	5	Aiste Zukaityte, Tareq Al Ansari, Yusuf Bicer	Efficiency Assessment of a Portable Hydrogen-Water Generator OH26	5	Youness El Mghoughi, Mihaela Tinca Udristioiu	Outlier Detection in Ozone and PM Data: Identifying Extreme Pollution Events Using Statistical, AI, and Causal Approaches OE7	5	Avram Sorin, Otel Irina, Chivu Luminita	Energy Transition Dynamics in Romania: Renewable Sources Integration and Decarbonization Pathways in the Context of European Climate Policies OE3	5	Elisa Ghirardi, Giovanni Brumana, Giuseppe Franchini	Techno-economic comparison of domestic and imported green hydrogen supply pathways for Germany OH14
15:45	Coffe break																	
16:00	6	Ahmet Emin Dedeoglu and Ibrahim Dincer	Floating Hydrogen Refueling Station For a Green Shipping Corridor OE26	6	Săiceanu Cristian-Eugeniu, Andrei-Alexandru Poenaru, Boncea Marius, Iovan Daniela, Ionescu Mihai, Cioileanu Daniel-Constantin	Experimental Study About the Switching Capacity of a Circuit Breaker in Out-of-Phase Situation IO7	6	Serdar Halis, Eyfer Boğar, Öner Atalay, Emre Arabaci	A Cleaner and More Efficient Spark-Ignition Engine through HHO Gas Enrichment with RSM-based Optimization OH12	6	Mikail Reza Onat, Murat Emre Demir	Hybrid Offshore Renewable Energy-Based Process Model for Green Marine Fuels: Hydrogen and Ammonia Production OE18	6	Banau Dragos Georgiana, Minduc Eduard, Ana Borissova	Comparative Simulation of Green Hydrogen Production via Water Electrolysis from Photovoltaic, Wind, and Hybrid Renewable Systems in TRNSYS OH15	6	Hariam N P, Mohd Farusham Ghazali, Sumaiya Zainal Abidin, Dan Barbuiescu, K Sudhakar	Decentralized Hydrogen Farming from Public Carpark Infrastructure: A Techno Economic Analysis OH18
16:15	7	Cağrı Gökhan Türk, Ibrahim Dincer	A Comparative Study On Energy Densities of Various Fuels And Batteries OE28	7	Marius Boncea, Mihaela Popescu, Andrei-Alexandru Poenaru, Cristian-Eugeniu Săiceanu, Daniela Iovan	Experimental Study About the Switching Capacity of a SF6 Free Switch Disconnecter IO9	7	Ayşe Sinem Meke and Ibrahim Dincer	Investigation of Hydrogen Production from Organic Wastes Through a Bio-Electrochemical Pathway OH21	7	Imadeldin Abdallah, Ibrahim Dincer	Integrated Tidal-Wind-Biomass Based System With Storage for Inuit Communities in Northern Quebec, Canada OE31	7	Sumeyya Ayca and Ibrahim Dincer	Green Hydrogen Production Using Ultrasonically Enhanced Gas-Doped ZnO Photoelectrodes OH20	7	Davut Ertekin	Development of a High-Gain Bidirectional Converter for Hydrogen, Battery, and Grid Integrated Electric Vehicles OE19
16:30	8	Ayşe Sinem Meke, Ibrahim Dincer and Ali Khalvati	Enhanced Biohydrogen Production Under Mixotrophic Conditions Using a Natural Microbial Consortium OE29	8	Aurelia Scomea, Mihai Scomea	The effects of AI and Cryptocurrencies on Energy Consumption and How Green Energy Could Help IO10	8	Esin Karatas Oguz and Ibrahim Dincer	Enhanced Hydrogen Evolution Performance Using Nickel-Coated Stainless Steel Cathodes in Alkaline Electrolysis OH22	8	Omer Refik Sozbir, Ibrahim Dincer	Environmental Assessment of Formic Acid Synthesis by Biocatalytic Electrochemical Reduction of Carbon Dioxide Using Tin-Electrodeposited Copper Mesh OE32	8	Raluca - Andreea Felseghi	Synergies Between the Energy-Active Built Environment and Green Hydrogen Technologies: A Review OE2	8	Davut Ertekin	Adaptive Small Signal-based Control of a High Gain Bidirectional Power Converter for Hybrid Hydrogen Electric Vehicles OE20
16:45	9	Ahmet Faruk Kilicaslan and Ibrahim Dincer	A Biomass-Based Integrated Bioelectrochemical System OE30	9	Nurdan Güven, Zafer Utlu	The Relationship Between National Policies and Thermodynamics: A Theoretical and Applied Study on Energy, Exergy, Entropy, and Political System Dynamics OE14	9	Assem Abdurakhmanova and Ibrahim Dincer	Economic Evaluation of Solar-Based Liquid Hydrogen Utilization for Hydrogen Peroxide Production OH25	9	Faisal Khan	Keynote speaker	9	Jerome Stanley M, Leenus Jesu Martin M, Edwin Geo Varuvel	Hydrogen-Enriched Gasoline Combustion for Lean Limit Extension and Emission Reduction in GDI Engines OE24	9	Sofya Morozova, Arif Karabuga, Behiye Yuksek, Zafer Utlu	Determination of Optimal Operating Conditions for Hydrogen Production Within Sensitivity Analysis OH1
17:00	10	Mikail Yagiz	Experimental Investigation of New Anode Flow Field Designs with Different Internal Geometries for PEMEC Performance OH10	10	Arif Karabuga, Behiye Yuksek, Zafer Utlu, Hasan Ayarturk	Thermodynamic Assessment of the Geothermal Based Electricity and Hydrogen Production for Sustainable Energy OH2	10	Mohamad Ayoub, Ibrahim Dincer	Experimental Investigation of Layered Copper Oxide Mesh Electrodes for Photoelectrochemical Hydrogen Production OH24	10	Andrei-Alexandru Poenaru, Marius Boncea, Cristian-Eugeniu Săiceanu, Mihai Ionescu, Daniela Iovan, Stefan Seitan	Research on Artificial Intelligence Algorithm to Predict the Behaviour on Short Circuit Situation of a Circuit Breaker IO8	10	Ayca Capoglu, Ibrahim Dincer	An Investigation Of Linden-Derived Activated Carbon For Hydrogen Storage OH22			
17:15	11	Mikail Yagiz	Experimental Investigation of Flow Field Design and Channel Geometry on the Performance of a Direct Ethanol Fuel Cell OE15				11	Yi Yang	Inside the MEA: Structure-Transport Correlations at the Nanoscale OH16									

* Legend:

- Keynote Speaker
- Online Presentation
- Onsite Presentation