

5th International conference of Chemical, Energy and Environmental Engineering
15-17 July 2025 Egypt Japan University of Science and Technology, Alexandria, Egypt.

Conference Agenda

1st Day: July 15th, 2025

Registration and Opening Ceremony		
9:00	10:00	Registration
10:00	11:00	Opening Session (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElwTs2znpbaJrXDlkQTI.1 Meeting ID: 865 0125 4184 Passcode: 508448)
11:00	11:30	Opening Exhibition
11:30	11:40	Group Photo
11:40	12:00	Coffee Break
12:00	13:20	Session1 - (Library theatre 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElwTs2znpbaJrXDlkQTI.1 Meeting ID: 865 0125 4184 Passcode: 508448) Invited Speakers Chairperson: Prof. Ahmed El-Shazly, (EJUST) and Prof. Hamdy Aboali, (EJUST)
12:00	12:30	Prof. Takashi Asawa, Institute of Science Tokyo “Optimizing thermal storage effect of radiant floor cooling system using phase change materials for buildings in hot and humid climates”
12:30	13:00	Prof. Abdelrahman Zkria, Faculty of Engineering Sciences, Kyushu University, Fukuoka, Japan “Diamond Materials for Sustainable Energy and Environmental Innovation”
13:00	13:20	Prof. Mona Gamal Edlin, Egypt-Japan University of Science and Technology, Egypt “JICA-Research Project: Development and innovation of sustainable technologies for hydrogen production and storage with environmental impact assessment for industrial applications”

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13:20	13:30	Break	
13:30	14:45	Session 2 - (Library theatre 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElWts2znpbaJrXDlkQ.Tl.1 Meeting ID: 865 0125 4184 Passcode: 508448) Fluid Mechanics and Thermal Sciences Chairperson: Prof. Eslam Reda, (EJUST) & Eng. Abdalla Tayel (Company of Water&Wastewater)	Session 3 - (Library theater 2) (Join Zoom Meeting https://us02web.zoom.us/j/89384261501?pwd=v0uze6sngAyaoiWBMe2ufjldcdKFx.1 Meeting ID: 893 8426 1501 Passcode: 809079) Mathematical Modeling & Oil Refining Chairperson: Prof. Usama Nour, (EJUST) & Dr. Mohamed Kenawy (Abo-Qir Fertilizers Company)
13:30	13:45	Mahmoud Koriem , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt <i>“Innovative Harmony Blade Design for Variable Area Savonius Wind Turbines: A Numerical Study”</i>	Mohamed Elgendy , Chemical Engineering Department, Faculty of Engineering, Alexandria University, Egypt <i>“Mathematical Modeling for Wax Deposition Mechanisms under Thermal Gradient in Solvent Dewaxing Unit”</i>
13:45	14:00	Mostafa Zaki Atwa Sharaf , Faculty of Engineering, Alexandria University, Egypt <i>“A Developed Design of Low-Cost Insulin Pump for Automated Insulin Delivery (AID) System”</i>	Elhussien Mohammed , Faculty of Engineering, Alexandria University, Egypt <i>“Impact of Bottom Outlet Boundary Conditions on Simulation Accuracy and Convergence in Gas-Solid Cyclone Separators”</i>
14:00	14:15	Mohamed Mahdi Abou Zeid , Faculty of Engineering, Alexandria University, Egypt <i>“Flow Diverter Treatment Assessment in patient-specific Intracranial Aneurysms Using CFD: Aligning Hemodynamic Changes with Reported Predictors”</i>	Abeer Salah , National Institute of Laser Enhanced Science (NILES)- Cairo University, Egypt <i>“Nonlinear optical absorption and optical limiting of olive oil by using z-scan technique”</i>
14:15	14:30	Ahmed Mostafa Hasaballa , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt <i>“Integrating Solar Chimneys and Windcatchers for Passive Cooling: A CFD Study on Conjugate Designs in Variable Environmental Conditions”</i>	Ahmed Yehia Ibrahim , EPROM company German International University, Egypt <i>“Refining Plant Energy Optimization: Steam Optimization”</i>
14:30	14:45		Ahmed Yehia Ibrahim , EPROM company German International University, Egypt <i>“Optimization of a Sulphur Recovery Unit for Incinerator Fuel”</i>
14:45	15:30	Lunch	
20:00		Dinner (Hilton King’s Ranch)	

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2nd Day: July 16th, 2025

		Session1 - (Library theatre 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElwTs2znpbaJrXDlkQTI.1 Meeting ID: 865 0125 4184 Passcode: 508448)	
		Invited Speakers Chairperson: Prof. Ahmed El-Shazly, (EJUST) and Prof. Mahmoud Nasr, (EJUST)	
9:30	10:00	Prof. Manabu Fujii , School of Environment and Society, Institute of Science Tokyo “Non-target analysis of PFAS and its remediation technology”	
10:00	10:30	Prof. Tsuyoshi YOSHITAKE , Department of Advanced Energy Science and Engineering, Kyushu University “Quenched-produced diamond (Q-dia) films by coaxial arc plasma desposition” Online presentation	
10:30	11:00	Prof. Sheena Kumari , Institute of water and wastewater Technology, Durban University of Technology, South Africa “Beyond Traditional: Sustainable Wastewater Treatment with Microbes”	
11:00	11:30	Prof. Francis Namu Njoka , Department of Energy, Gas and Petroleum Engineering Kenyatta University, Kenya “Hydrothermal gasification of biomass wastes for hydrogen-rich syngas”	
11:30	12:00	Coffee Break	
12:00	13:00	Exhibition and University Tour	
13:00	14:30	Session 2 - (Library theatre 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElwTs2znpbaJrXDlkQTI.1 Meeting ID: 865 0125 4184 Passcode: 508448) Energy Technology and Application Chairperson: Prof. Hamdy Aboali, (EJUST) & Eng. Mohamed Zaky (Ezz Steel Company)	Session 3 - (Library theater 2) (Join Zoom Meeting https://us02web.zoom.us/j/89384261501?pwd=v0uze6sngAyaoiWBMe2ufjldcdKFx.1 Meeting ID: 893 8426 1501 Passcode: 809079) Environmental Engineering Chairperson: Prof. Hassan Shokry, (EJUST) & Dr. Iman Gowhar (Alexandria Sewage Company)
13:00	13:15	Mohammed Hodroj , Lebanese International University “Experimental evaluation of performance Parameters in air-to-water finned-tube heat exchangers under variable inlet conditions”	Alaa Kamal Ibrahim , Environmental Health Department, High Institute of Public Health, Alexandria University, Egypt “A Trial Experiment on Using Ship Fouling for Anaerobic Wastewater Treatment in Grease Factories: A Sustainable Practice”

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13:15	13:30	Akram Haitham , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Integrated Passive and Active Design Strategies for Enhancing Energy Efficiency in Residential Buildings: A Simulation-Based Analysis”	Mohamed Abdelwahab Elmetwally Badr , Marine Officer and PhD of Environmental Engineering, Egypt “Enhancement of Anaerobic Treatment of Grease Manufacturing Wastewater using Marine Fouling: Effect of Mixing and Heating”
13:30	13:45	Yehia Akram , Energy Engineering Department, Egypt-Japan University of Science and Technology, “Utilization of organic waste to produce electricity by co-firing biogas or syngas with natural gas (Case Study in Talkha power station in Dakahlia)”	Maisa SalahEldinIsmail Ahmed , Alexandria Water Company, Holding Company of Water & Wastewater, Egypt “Dual System for Treating Water and Generating Green Hydrogen Using Environmentally Friendly Techniques and Reducing Carbon Footprint of the Process.”
13:45	14:00	Alaa Eldin Manaa , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Design and Simulation of a Flat Plate Solar Water Heater for Sustainable Energy in Borg Al-Arab, Alexandria, Egypt”	Mostafa M. Abdelmalek , Environmental Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Nitrogen Dioxide Concentration Forecasting Based on Machine Learning Algorithms: New Borg El Arab City, Alexandria, Egypt as a Case Study”
14:00	14:15	Mohamed Eldesoky , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Energy Saving in Cold Storage Using a Hybrid Solar-Powered Refrigeration System”	Amr Elsayed Abbas Mansy , Egypt-Japan University of Science and Technology, Egypt “Utilization of industrial waste fly ash for the adsorptive photocatalytic degradation of toxic dye
14:15	14:30	Sama Yasser Mohamed , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Gravity Energy Storage System: Design and Techno-Economic Assessment of a Full-Scale Implementation with Respect to Lithium-Ion Battery Performance and Cost Metrics”	Yasmen Heiba , Civil Engineering Department, Faculty of Engineering at Shoubra, Benha University, Egypt “Sustainable Circular Water Solutions: Optimizing Macrophyte Selection for Green Roof Greywater Treatment in Arid Cities”
14:30	15:30	Lunch	

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3rd Day: July 17th, 2025

10:00-11:00		Session 1 - (Library theater 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElwTs2znPbaJrXDIkQTL.1 Meeting ID: 865 0125 4184 Passcode: 508448) Energy Engineering Chairperson: Prof. Eslam Reda, (EJUST) & Eng. Maisa Salah Eldin(Company of Water& Wastewater)	Session 2 – (Library theater 2) (Join Zoom Meeting https://us02web.zoom.us/j/89384261501?pwd=v0uze6sngAyaoiWBMe2ufjlcdKfX.1 Meeting ID: 893 8426 1501 Passcode: 809079) Chemical and Environmental Engineering Chairperson: Prof. Marwa Elkady (EJUST) & Eng. Lamiaa Moustafa(Company of Water& Wastewater)
10:00	10:15	<i>Hesham Yousry, Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Development of a Hybrid Solar-Wind Standalone Street Lighting System for Sustainable Off-Grid Applications”</i>	<i>Marwa Nabil, Advanced Technology and New Materials Research Institute, City of Scientific Research and Technology Applications, New Borg El-Arab City, Alexandria, Egypt “Green Synthesis of crystalline and amorphous calcium carbonate for different applications”</i>
10:15	10:30	<i>Logien Salem, Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Study the performance of new designed solar dryer powering by tubular solar air heater, PV system and phase change materials”</i>	<i>Marwa Eid Abdel Aziz Mohamed, Central Metallurgical Research and Development Institute, Helwan, Cairo, Egypt “Synthesis and Characterization of newly developed Hydroxyapatite/ Multiwall Carbon Nanotubes Reinforced Polypropylene Biocomposites”</i>
10:30	10:45	<i>Abdelrahman Gaber, Faculty of Engineering, Alexandria University, Egypt “Optimizing Foam Chamber Orifice Design for Enhanced Fire Suppression in Oil and Gas Storage Tanks using CFD”</i>	<i>Abdalmonem Shawky Alkhawaga, Faculty of Engineering, Tanta University, Egypt College of Engineering UAEU “Remote sensing innovations in water quality assessment: a bibliometric review study”</i>
10:45	11:00	<i>Abdelsalam Abdelhady Abdellatif Zidan, United Arab Emirates University “Impact of Glucose Concentration on Hydrogen Production Efficiency in Microalgal-Cyanobacterial-Bacterial Co-Cultures”</i>	
11:00	11:15	Break	

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11:15	12:45	Session 4 - (Library theatre 1) (Join Zoom Meeting https://us02web.zoom.us/j/86501254184?pwd=QvhRRuFuKHElWts2znpbajRlXDIkQTI.1 Meeting ID: 865 0125 4184 Passcode: 508448) Innovative Research Chairperson: Prof. Mahmoud Sharaan, (EJUST)&Prof. Francis Namu Njoka,, (Kenyatta University)	Session 5 – (Library theater 2): (Join Zoom Meeting https://us02web.zoom.us/j/89384261501?pwd=v0uze6sngAyaolWBMe2ufjldcdKFx.1 Meeting ID: 893 8426 1501 Passcode: 809079) Online Presentations Chemical and Environmental Engineering Chairperson: Prof. Amal Elsonbaty, (EJUST)& Eng. Mohamed Elsayed(SIDPEC Company)
11:15	11:30	Mahmoud Nasr , Egypt-Japan University of Science and Technology, “Phyto-management: An environmental resilience strategy for uniting water, food, climate, and energy “	Reham Salah Ahmed Salem , Demonstrator at Faculty of Engineering, Alexandria university, Irrigation and Hydraulics Department, Egypt “Optimum Position of Drainage Gallery Due to Seismic Force in Concrete Gravity Dams ”
11:30	11:45	Derrick Dadebo , Egypt-Japan University of Science and Technology, Egypt “Integrated anaerobic digestion/pyrolysis scheme for sustainable textile-dyeing wastewater and biowaste valorization ”	Randa Hassan Ghoneim , Alexandria university, Egypt “Advancing Brine Treatment Technologies for Sustainable Desalination and Salt Recovery ”
11:45	12:00	Ahmed Elshazly , Egypt-Japan University of Science and Technology, “High Concentration Photovoltaics and Metal-Organic Framework Membranes for Zero Energy Desalination ”	Ahmed Tohami , Energy Engineering Department, Egypt-Japan University of Science and Technology, Egypt “Improving Torque and Stability in Darrieus Turbines for Tidal Energy: A CFD Study of Slat-Integrated Airfoil Configurations ”
12:00	12:15	Eslam Reda , Egypt-Japan University of Science and Technology, “Clean energy generation for street lighting and remote rural electrification via a novel hybrid PV/wind turbine system design ”	Noha Said , Environmental Engineering Department, Faculty of Engineering, Zagazig University, Zagazig, Egypt, “Enhancing Rice Straw Characteristics for Sustainable Bioenergy: Washing Effects on Ash and Combustion Efficiency ”
12:15	12:30	Hamdy Aboali , Egypt-Japan University of Science and Technology, “Utilization of ammonia for mobility decarbonization ”	M.M. Nawar , Petrochemical Engineering Department, Faculty of Engineering, “Synthesis and Characterization of Green Polymers for Food Packaging ”
12:30	12:45		Belal Ashraf Hassan , Sanitary Engineering Department, Faculty of Engineering, Alexandria University, Alexandria, Egypt “Integrated Flash Flood Management Strategies for arid zones: A Hydrological and GIS-Based Approach ”
12:45	1:00	Closing Session (Library theatre 1)	