

Conference Program

International Conference
on Energy and Sustainability
(ICES) 2024

22-23, April 2024 A'Sharqiyah University, Ibra



Day 1: Monday 22 April 2024

08:30 AM – 09:45 AM

Onsite Registration and Welcome Refreshments

Opening Ceremony (Auditorium)<http://bit.ly/3xiblj2>

10:00 AM
 10:05 AM – 10:10 AM
 10:10 AM – 10:15 AM
 10:15 AM – 10:50 AM

Opening Ceremony

Opening Speech

Video About ASU

Keynote Speech*Oman's Renewable Energy and Green Hydrogen driving Oman's sustainability and energy transition agenda.*

Eng. Abdul Aziz Al-Shidhani, Managing Director, Hydrom and Chairman, NPWP, Oman.

Keynote Speech*From Watts to Wealth: The Economics of Sustainable Energy.*

Dr. Abdullah Al-Abri, Consultant, International Energy Agency (IEA)

10:50 AM – 11:25 AM

Honoring Session

11:25 AM – 11:35 AM

Session 1: 11:40 A.M – 12:40 PM**Technical Session A (Auditorium)**<http://bit.ly/3xiblj2>

Chair Name: Dr. Maan Hayyan

Technical Session B (COE-1015)<https://bit.ly/3TEcWg1>

Chair Name: Dr. Ali Istanbulu

Technical Session C (COE-1026)<https://bit.ly/4cL8lvM>

Chair Name: Dr. Mazher Balouch

11:40 AM	<i>Bioreactor System for Treatment of Slag Leachate Using Low-Cost Filter Materials.</i> Dr. Osama Ibrahim, Sohar University	11:40 AM	<i>Strength and durability performance of green concrete.</i> Mr. S. Ram Prasath, Vemu Institute of Technology, Tirupathi	11:40 AM	<i>Selection of the best Heat transfer fluid for PVT based hydrogen production system using TOPSIS Technique.</i> Senthil Raja, SRMIST-India
11:55 AM	<i>The significance analysis of robust and quantile regressors in partially skewed distributions using agricultural and climate variables.</i> Sanjith Bharatharajan Nair, Nizwa University.	11:55 AM	<i>Drag-Reducing Polymers as Energy-Saving Agents in Horizontal Two-Phase Oil-Water Dispersed Flow.</i> Abdulkareem Abubakar, ABU-Nigeria	11:55 AM	<i>FeO-Alumina catalyst for reforming of waste polyethylene terephthalate (PET) pyrolyzed products: synthesis, characterization, and performance evaluation.</i> Ephraim Audu, NARICT-Nigeria
12:10 PM	<i>Analytical simulation approach to evaluate the ambient humidity effects on the performance of a wind accelerator.</i> Abdulhamid Al Hinai, Sohar University.	12:10 PM	<i>Application of Choline Chloride - Ethylene Glycol Deep Eutectic Solvent for the Extraction of Monocyclic Aromatic Hydrocarbon Contaminants from Soil.</i> Haruna Ismail Almustapha, NARICT-Nigeria	12:10 PM	<i>Natural hydrophobic deep eutectic solvent-based peracids for the ultrasonic degradation of phenolics from wastewater.</i> Deborah Oluwatomilola Adeoye, NILST, Zaria
12:25 PM	<i>The effect of polycaprolactone polymer degradation in compost on seed germination.</i> Asma. Al Hosni, UTAS, Muscat.	12:25 PM	<i>Overview of the use of additives in Deep Eutectic Solvent – based electrolytes for improved electrodeposition of Zn metal.</i> Idris Mohammed Kutigi, NARICT- Nigeria	12:25 PM	<i>Surface modified bio-based graphene nanoplatelets for enhanced cutting transport efficiency in deviated holes using aqueous drilling fluids.</i> Muftahu N. Yahya, UTM-Malaysia

12:40 PM – 02:00 PM

Lunch Break (Engineering Building)

Session 2: (02:00 PM – 04:00 PM)Nama Presentation (**Auditorium**)<http://bit.ly/3xiblj2>

02:00 PM – 02:30 PM

*Nama Water Sustainability Strategy – Roadmap towards transition to Net Zero.*

Dr. Buthaina Al-Wahaibi, Research and Development Head, Nama Water Services

Technical Session A (Auditorium) http://bit.ly/3xiblj2 Chair Name: Dr. Rashid Al-Abri		Technical Session B (COE-1015) https://bit.ly/3TEcWg1 Chair Name: Dr. Mohammed Abdel Hameed		Technical Session C (COE-1026) https://bit.ly/4cL8lvM Chair Name: Dr. Adnan Kabbani	
02:30 PM	<i>Exploring Management Strategies for Water Desalination Technologies in Oman: Opportunities, Obstacles and Solutions.</i> Maadh Al Khayari, GCET.	02:30 PM	<i>Evaluating the Impact of Fault-Current Limiters for VSC-HVDC Projects.</i> Muhammad Ahmad, KFUPM-SA	02:30 PM	<i>Improvement In Fluid Loss Control and Viscosity of Water-Based Drilling Mud using Novel Nanohydroxyapatite under High Temperature and Sodium Chloride Salt Conditions.</i> Dr. Jeffrey O. Oseh, UTM-Malaysia
02:45 PM	<i>A study on usage of treated wastewater resource management for the sustainable development of Al Amerat.</i> Dr. Parameswari Kaliyaperumal, UTAS.	02:45 PM	<i>Development of Bioplastics from Renewable Biomass Waste Via Facile Hydrolysis Process.</i> Suleiman Yunusa, ABU-Nigeria	02:45 PM	<i>Effect of Nanoparticles in Drilling Fluids on the Transportation of Different Cutting Sizes in a Rotating Horizontal Pipe.</i> Dr. Jeffrey O. Oseh, UTM-Malaysia
03:00 PM	<i>HHO Technique to Enhance Power Quality in Autonomous Microgrids.</i> Karimulla Syed, UTAS	03:00 PM	<i>Groundwater Quality Assessment in Ede, Nigeria: Bridging Gaps and Meeting SDG.</i> Ifeoluwa Ifeoluwa Comfort Adebajo, LAUTECH-Nigeria	03:00 PM	<i>Production of starch-based bioplastic from the mixture of potato and cassava peel wastes starch using glycerol as plasticizers: A comparison on the effect of CaCO₃ and HCL as fillers.</i> Ahmad Shinkafi Nasir, ABU-Zaria
03:15 PM	<i>Biodiesel production from waste cooking oil using ethanol produced from sugar or dates syrup.</i> Said Al-Khalasi, Nizwa University.	03:15 PM	<i>Characterization of Castor Oil as an Admixture for Concrete.</i> Shuaibu Bello Abubakar, ATBU-Bauchi	03:15 PM	<i>Comparative Study on Enhancing Concrete Performance with Sustainable GGBS and Fly Ash-Based Recycled Aggregates.</i> R.Neha, KEC
03:30 PM	<i>Sustainable building production adopting optimized BIM phasing system.</i> Ali Istanbulu, A'Sharqiyah University.	03:30 PM	<i>Production of Eco-friendly Alkali Activated Concrete by the Effective Utilization of Recycled Construction and Foundry Wastes for Sustainable Highway Infrastructure.</i> Akhila S, NMAMIT-India	03:30 PM	<i>Autonomous electric vehicles with traffic surveillance using artificial intelligence: a method for smart cities.</i> Aaqib Raza, UTP-Malaysia
03:45 PM	<i>Experimental Investigation on the Potential Use of Geothermal Energy Piles Installed in Omani Soils.</i> Abdulaziz Al-Qeisi, SQU.	03:45 PM	<i>State of Art Review of Renewable Energy-Based Systems for Electrical Machine Applications: Challenges and Prospects.</i> Isiaka Shuaibu, UTP-Malaysia	03:45 PM	<i>Influence of Steel Fiber and Recycled Coarse Aggregate on the Durability and Hardened State Behavior of Self-Compacting Geopolymer Concrete.</i> Mohammed Wadi Aljumail, UTN-Malaysia

Day 2: Tuesday 23 April 2024

08:30 AM – 09:00 AM

Refreshments and Poster Session (Multipurpose Hall)

Session 3: 09:00 A.M – 10:40 AM

Keynote Speech (Auditorium)

<http://bit.ly/3xiblj2>

09:00 AM – 09:40 AM

*Industrial by-products in Oman as an emerging sustainable construction material*

Prof. Khalifa Al-Jabri, Professor, Sultan Qaboos University, Oman

Technical Session A (Auditorium)<http://bit.ly/3xiblj2>

Chair Name: Dr. Shaikh Saboor

**Technical Session B (COE-1015)**<https://bit.ly/3TEcWg1>

Chair Name: Dr. Motasem AlAziza

**Technical Session C (COE-1026)**<https://bit.ly/4cL8lvM>

Chair Name: Dr. Ali Al Ashebi






09:40 AM	<i>Transitioning from Landfills to a Sustainable Circular Economy: A Techno-economic and Environmental Assessment in Oman.</i> Dr. Siva, GCET	09:40 AM	<i>A review on Comparative study of using silica fume and Areca Fibre on Soil stabilization.</i> Yowa Yaniam, NERIST-India	09:40 AM	<i>Influence of bio-cementation and Rice Husk Ash on California Bearing Ratio of silty sand soil.</i> Martina Gumsar Sorum, NERIST-India
09:55 AM	<i>Phase change materials (PCM) for a Zero-carbon Food Preservation Technology for Remote Areas.</i> Mr. Fahad Saif Al Maqbali, UTAS	09:55 AM	<i>Design and Performance Analysis of the Multiple Power Electronic Converters Configuration in Electric Vehicles.</i> Muhammad Usman Sardar, TUT-Estonia	09:55 AM	<i>Carbon Footprint of a Port Reception Facility.</i> Vadym Zbaratski, GTU-Turkey
10:10 PM	<i>Data Mining for Enhanced Security: A Transformative Framework for Smart Grid Protection in the Digital Age.</i> Muataz Salam Al-Daweri, Nizwa University	10:10 PM	<i>Green Finance Initiatives in Indonesia to Support Sustainable Development Goals.</i> Sonia Lohana, UTHM-Malaysia	10:10 PM	<i>Life Cycle Assessment of Port Reception Facilities.</i> Burak Emre Şenel, GTU-Turkey
10:25 PM	<i>Sustainable construction waste management in oman: an overview.</i> Shakila Javed, UTAS-Muscat	10:25 PM	<i>A mathematical model for predicting compressive strength of geopolymers for CCUS wells from transit time of ultrasonic waves.</i> Nurul Nazmin Zulkarnain, UTP-Malaysia	10:25 PM	<i>Enzymatic co-conversion of rice husk and potato peel waste for bioethanol production, using NaOH pretreatment.</i> Ahmad Mahmud, ABU-Zaria

10:40 AM – 11:00 AM

Coffee Break and Poster Session (Multipurpose Hall)

Session 4: 11:00 AM– 01:00 PM

Technical Session A (Auditorium) http://bit.ly/3xiblj2 Chair Name: Dr. Mohammed Al-Abri				Technical Session B (COE-1015) https://bit.ly/3TEcWg1 Chair Name: Dr. Hamada Esmail				Technical Session C (COE-1026) https://bit.ly/4cL8lvM Chair Name: Dr. Mohammed Abdel Hameed			
11:00 AM	<i>Green Concrete using Recycled Coarse Aggregate and Fly ash: A Case Study in Oman.</i> Mohammed Ihtesham Hussain, UTAS	11:00 AM	<i>Environmental safety impacts of Aspira Nigeria and Northern Noodles regasification plants in Nigeria.</i> Nuraddeen B. Abdullahi, ABU-Nigeria	11:00 AM	<i>Impact of pH Level on Fresh Properties of Locally Produced Effective Microorganisms Concrete.</i> Adamu Abubakar Sani, ATBU-Nigeria						
11:15 AM	<i>Contribution to the design of a passive house with renewable energy in an arid climate.</i> Cherif Benoudjafer, Tahri Mohamed University, Algeria	11:15 AM	<i>Performance augmentation of triangular solar still using energy storage materials.</i> Naveen Sharma, NSUT-Delhi	11:15 AM	<i>Investigating Rubber Tire Waste in Acidic and Salinous Environments as a Sustainable Substitute for Coarse Aggregates: A Slump and Compressive Strength Analysis.</i> Adamu Sani Abubakar, ATBU-Nigeria						
11:30 AM	<i>Experimental Study on Replacement of Cement with Biochar in Concrete -A Step Toward for Net Zero Construction.</i> Rajiv Chauhan, IKG Punjab Tech	11:30 AM	<i>A review on the impact of biochar in soil stabilization for potential application in bioengineered structures.</i> Dinken Paksok, NERIST-India	11:30 AM	<i>Sustainable use of bio wastes as a stabilising agent in stabilisation of expansive soil: a review.</i> Nisha K Singh, NERIST						
11:45 AM	<i>Advancing Sustainable Construction: Plastic-Infused Concrete for Energy-Efficient Buildings.</i> Mohammed Javeed, A'Sharqiyah University.	11:45 AM	<i>Computational Insights into Functional Group-Metal Interactions for Enhanced Chromium Removal in Water Treatment: A DFT Calculation.</i> Toyese Oyegoke, ABU-Nigeria	11:45 AM	<i>Efficiency Optimization of Lead-Free Perovskite Solar Cells with CsSnCl₃ Active Layer: A Numerical Study.</i> Soufi Hadjer, UT-Algeria						
12:00 PM	<i>Analyzing the Hydrogen Economy and Sustainable Development in Oman through Social Life Cycle Assessment (SLCA).</i> Ludina Juma Al Bulushi, GCET	12:00 PM	<i>Sustainable Pb (II) Removal from Textile Industry Wastewater: A Biomass-Based Sorbent from Sugarcane Bagasse and Lemongrass for Eco-Friendly Effluent Treatment</i> Aminu Suleiman Dangamba, ABU-Nigeria	12:00 PM	<i>Flexural Performance of Sustainable Reinforced Concrete Beams using GFRB bars.</i> Priyadharshini B, Nirmala R, Charan Raj N, SIST-India						
12:15 PM	<i>Sustainability Assessment of Disaster Risk Reduction (DRR) in the Sultanate of Oman.</i> Ayman Nasser Al Rumhi / Dr. Siva, GCET	12:15 PM	<i>Unlocking the Potential of Graphene Oxide as an Early Strength Enhancer for Geopolymer Well Cement in the Downhole Environment.</i> Mohd Firdaus Habarudin, UTP-Malaysia	12:15 PM	<i>Optimization study of adsorption parameter for the removal of Zinc (Zn) and Arsenic on activated Coconut shell adsorbent using Response Surface Methodology.</i> Priyadharshini B, Marykutty Abraham, Nirmala R, Agalya S, SIST-India						
12:30 PM	<i>Importance of Solvent Reflux in Extracting Furfural Oil from Agricultural Waste.</i> Mohammed Omar, NU	12:30 PM	<i>The Role of Antifoam Additives in Altering the Compressive Strength in Geopolymer Well Cement.</i> Nurul Nazmin Zulkarnain, UTP-Malaysia	12:30 PM	<i>Environmental remediation and soil enhancement via biodigester-enabled organic waste conversion.</i> Abdullahi Bello, NBDA-Nigeria						
12:45 PM	<i>Production of biogas from agriculture waste through cellulose extraction.</i> Dr. Shabib Alrashdi, NU	12:45 PM	<i>Impact of the addition of pcm in solar still distiller.</i> Hidouri Khaoula, UG-Tunisia	12:45 PM	<i>Management of bilge water treatment sludge.</i> Nurullah Özdoğan, BUU-Turkey						

01:00 PM – 02:00 PM Lunch Break (Engineering Building)

Session 5: 02:00 PM – 04:00 PMKeynote Speech (**Auditorium**)<http://bit.ly/3xiblj2>

02:00 PM – 02:30 PM

*Energy Saving Potential of Sustainable and Smart Building Materials towards Net Zero Energy Buildings*

Dr. Shaikh Saboor, Associate Professor, Vellore Institute of Technology, India

Technical Session A (Auditorium)<http://bit.ly/3xiblj2>

Chair Name: Prof. Benoudjafer Cherif

**Technical Session B (COE-1015)**<https://bit.ly/3TEcWg1>

Chair Name: Dr. Mahfouz Said

**Technical Session C (COE-1026)**<https://bit.ly/4cL8lvM>

Chair Name: Dr. Madhusudhan Ramu



02:30 PM	<i>When is it Economical to Install Residential Renewable Energy Generators? Assessing the Value of Storage and Developing a Smart Home Energy Management System.</i> Hakan Gultekin, SQU	02:30 PM	<i>Experimental study of temperature and humidity distribution inside a greenhouse heated by solar thermal energy in continuous mode.</i> Ali Benhmidene, UG-Tunisia	02:30 PM	<i>Utilization of agriculture waste as pozzolanic material in concrete: Review</i> Mihin Rinya, NERIST-India
02:45 PM	<i>Life cycle assessment (LCA) modeling: waste vegetables and fatty residue seed kernels</i> Ms. Eqlima Aflah Maddad, NU	02:45 PM	<i>Emotion Recognition System Towards Sustainability Development.</i> Muhammad Nadzree Mohd Yamin, MU-Malaysia	02:45 PM	<i>Behavior of different types of plastic waste reinforced soil in pavement subgrade application.</i> Kime Rinya, NERIST-India
03:00 PM	<i>Thermal Mechanism to Improve Properties of Zrsio4 Reinforcement of ZA-27 Aluminum Alloy</i> Dr Mutlag Shafi, NU	03:00 PM	<i>Existence and prospective human health risk of Pharmaceutical and Personal Care Products (PPCPs) in different mean of water: A study of Malaysia.</i> Junaid Ur Rehman Abbasi, UTAR-Malaysia	03:00 PM	<i>Biochar Synthesis using Hydrothermal Method for Removal of Toxic Compounds from Industrial Wastewater</i> Muneer M. Ba-Abbad, Qatar University
03:15 PM	<i>Extraction and characterization of eco-friendly bio-pesticide from custard apple seed kernels.</i> Manahil Al Khusaibi, NU	03:15 PM	<i>Effect of Rejuvenators on Physical and Rheological Properties of Bituminous Binder.</i> Mohammad Farhad Ayazi, PU-India	03:15 PM	<i>Embodied energy and carbon in Construction and Demolition waste-based masonry products.</i> Namratha Bharadwaj, RVCE-India
03:30 PM	<i>Modeling and optimization studies for extraction of omani dates seeds oil using acoustic cavitation as a novel approach.</i> Manahil Al Khusaibi, NU	03:30 PM	<i>Enrichment of Poultry Litter Fertilizer Using Eggshell for Agricultural and Environmental sustainability</i> Dr. Suleiman Yunusa, ABU, Zaria	03:30 PM	<i>Review and Future Directions of Research on the Impact of Green Culture on Green HRM Practices and Environmental Performance.</i> Al-Baraa Abdulrahman Al-Mekhlafi, USIAM

03:50 PM – 04:20 PM

Closing Remarks and Awarding Sessions (**Auditorium**)



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