

Conference Program

International Conference on Green and Sustainable Materials (ICGSM-2025)

13-14 October 2025
Oman Time



Day 1: October 13, 2025

Registration

09:00- 09:50

Opening Ceremony

Venue: Auditorium, Student Services Center

10:00-10:05	Introduction to the conference
10:10–10:18	Welcome Address by (DVCAAR & Chair of Steering Committee)
10:18-10:20	Welcoming video to ASU

Keynote Session 1

Chair: Ms. Al-Maha Al-Habsi

10:20-10:50	Green and Low Carbon Hydrogen
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Speaker: **Mr. Matthias Altmann**

Ludwig-Bölkow-Systemtechnik GmbH, Munich/Ottobrunn, Germany.

10:50- 10:53	Video about the conference
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Keynote Session 2

10:55–11:25	Development of hydrogel beads using chitosan and essential oil emulsions for water purification.
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Speaker: **Prof. Mayson H. Al Khatib**

Department of Biological Sciences & Chemistry, College of Arts and Sciences, University of Nizwa, Nizwa, Sultanate of Oman.

11:25 – 11:30	Appreciation to keynote speakers and the group photo
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Coffee Break

Multipurpose Hall 1

11:30 M– 12:00

Parallel Sessions

12:00 – 13:15

ROOM 1 (ADM001)

Track 1 – Green Chemistry and Sustainable Synthesis (GCSS)

Chair: Dr. Ashanul Haque

12:00-12:15	Recent Advances in Nanofluids: Synthesis, Characterization, and Emerging Applications. Speaker: Dr. Khamis Saif Al Kalba Faculty of Education and Arts, Sohar University, Sohar, Oman.
12:20 - 12:35	Enhanced Antibacterial Activity of Selenium Nanoparticles Loaded on Activated Carbon: Synthesis, Characterization, and Biological Evaluation. Speaker: Dr. Aisha Al Musharraf Sultan Qaboos University, Muscat, Oman.
12:40 -12:55	Green membrane to remove Cu(II) from polluted water. Speaker: Ms. Fatima Jmaito Faculty of Sciences, Ibnou Zohr University, Laboratory of Applied Chemistry and Environment, Agadir, Morocco
13:00-13:15	Development and Validation of an RP-HPLC/FLD Method for the Determination of Biogenic Amines after Pre-column Derivatization with a New Pyrazoline Based reagent, 3-Naphthyl-1-(4-trifluoromethyl)-5-(4-carboxy phenyl)-2-pyrazoline, Speaker: Dr. Amal Al Sabahi Department of Basic sciences, College of Medicine and Health Sciences, National University, Sohar, Oman.
<i>ROOM 2 (ADM002)</i> Track 2 – Renewable Energy and Sustainable Materials (RESM) Chair: Dr. Mahmoud Elnaggar	
12:00-12:15	Highly Luminescent Lanthanide(III) Coordination Compounds for LED Applications. Speaker: Dr. Nawal K. Al Rasbi Dept. of Chemistry, College of Science, Sultan Qaboos University, Al-Khodh, Oman.

12:20 - 12:35	Ag@Zn-MOF Composites for High-Capacitance Energy Storage and Ultra-Sensitive Detection of Al^{3+} Upto 0.156 p . Speaker: Dr. Kafeel Ahmad Siddiqui Department of Chemistry, National Institute of Technology Raipur, G. E Road Raipur-492010, Chhattisgarh, India.
12:40 -12:55	Green Hydrogen Technology in Progress of Artificial Neural Networks Applications in Hydrogen production Speaker: Mr. Md Shaklain 1PG Department of Chemistry Langat Singh College(B R A Bihar University) Muzaffarpur Bihar India.
13:00-13:15	Experimental Investigation on Solar Panels to Enhance Output Power by Using Organic Phase Change Materials in Sultanate of Oman Speaker: Dr. Karimulla Syed Moh mad Engineering Department, University of Technology and Applied Sciences, Engineering Department, Shinas, Oman.
ROOM 3 (ADM003) Track 3 – Interdisciplinary Sustainability in Science (ISS) Chair: Dr. Rabab Mahmoud	
12:00-12:15	Optimization of PVA/CNC/ε-Polylysine Nanocomposite Coatings for Reducing Postharvest Weight Loss in Fresh Chillies. Speaker: Dr. Nor Hakim Abdullah Faculty of Bioengineering and Technology, University Malaysia Kelantan, 17600 Jeli, Kelantan, Malaysia.
12:20 - 12:35	Differential Control of Lipid Droplets: G3BP and Senescence Speaker: Dr. Maha Al-Roshdi Department of Biological Sciences and Chemistry, University of Nizwa, Nizwa, Oman.

12:40 -12:55	Human Health and Environmental Biology: An Overview of How Environmental Changes Impact on Human Health, Department of Computer Science and Management Information System. Speaker: Ms. Bayan Khalfan Al-Nabhani Oman College of Management & Technology, Barka, Oman.
13:00-13:15	Fabrication of a Biochar-Based Palm Frond/Omani Okra Mucilage/Alginate Composite for the Removal of Cadmium Ions from Aqueous Media. Speaker: Dr. Laila Al-shandoudi University of Technology and Applied Sciences, Oman.
<i>Lunch Break</i> 13:15 – 14:30	
<i>Online session</i> Venue: Auditorium 14:30 – 16:10 Chair: Dr. Satyanarayan Dev	
<i>Keynote Session 3</i>	
14:30 – 15:00	Sustainable Recovery of Rare Earth Elements from Electronic Waste Using Biosorption and Bioaccumulation. Speaker: Prof. Dominik Schild IMC Krems University of Applied Sciences, Institute Biotechnology, Krems, Austria.
<i>Keynote Session 4</i>	
15:00-15:30	Microstructure Design and Application of Photocatalytic Materials. Speaker: Prof. Wei Li College of Chemistry and Chemical Engineering, Shaanxi Key Laboratory of Chemical Additives for Industry, Shaanxi University of Science and Technology, Xi'an, Shaanxi, China.

Online Oral session

15:30-16:10

15:35-15:50	Design and Synthesis of Phenyl Quinoxalinone-Hydrazone Derivatives as EGFR Inhibitors Against Breast Cancer via Apoptosis, Speaker: Dr. Mohammed S. Nafie Department of Chemistry, College of Sciences, University of Sharjah, Sharjah, United Arab Emirates.
15:55-16:10	The Impact of Green Financing Instruments on the Capital Structure of Muscat Stock Exchange - Listed Companies in Oman. Speaker: Dr. Mohammed Jahangir Ali Department of Business Administration and Accounting, Al Buraimi University College, Al Buraimi - Sultanate of Oman.

Coffee Break & Poster Session

16:15 – 16:30

Social activity

16:30-19:00

Dinner at campus

19:00-21:00

Day 2: October 14, 2025

Venue: Auditorium

Keynote Session 5

Online

Chair: Dr Nisar Ali

09:00-9:30	Silane Synthesis via Hydroboration and Carbaboration: Exploring Open-Chain to Spiro-Compound Architectures.
Speaker: Dr. Ezzat Khan Chairman Department of Chemistry, College of Science, University of Bahrain, Main Campus Sakhir, 32038, Kingdom of Bahrain.	

Online session

09:35-10:45

09:35-09:55	Evaluation of Coconut and Palm Kernel Oils as Green Demulsifiers for Crude Oil Emulsion, Speaker: Dr. Roheem Fatimah Opeyemi Chemistry Department, Airforce Institute of Technology, Kaduna State, Nigeria.
10:00-10:15	ioactive Compound Profiling and Antioxidative Capacity of Pecan Processing Co-Products. Speaker: Mr. Hari Sannamuri Food Science Department, University of Central Oklahoma, EDMOND, OK,USA.

Coffee Break & Poster Session

10:15 – 11:00

In-person Parallel sessions

11:00 – 12:15

ROOM 1 (ADM001)

Track 1: Green Chemistry and Sustainable Synthesis (GCSS)

Chair: Dr. Ahmed Abdelfattah

11:00-11:15	Energy Band Gap Modulation and Enhanced Spin Dynamics in Er³⁺-Doped Co-Mn Ferrite Nanoparticles. Speaker: Dr. Syeed Asad Ali Department of Physics and Materials Science, Department of Applied Physics, Zakir Husain College of Engineering & Technology, Aligarh Muslim University, Aligarh, Uttar Pradesh, India.
11:20-11:35	Cinnaldehyde-Modified Chitosan Corrosion Inhibition Activity on Carbon Steel 316L (CS-SS-316L). Speaker: Dr. Muna Al-Hinai Department of Process Engineering, International Maritime College Oman, National University of Science and Technology, Sohar, Oman. & Department of Biological Sciences and Chemistry, College of Arts and Sciences, University of Nizwa, Nizwa, Oman.

11:40 -11:55	Green Synthesis of Silver Nanoparticles Using Frankincense Oil and Their Antimicrobial Activity Against Wall-Colonizing Microorganisms. Speakers: Dr. Amatur Roquia and Dr. Pankaj Sah Applied Sciences Department, College of Applied Sciences and Pharmacy, University of Technology and Applied Sciences-Muscat, Al Khuwair, Oman.
12:00-12:15	Phytochemical Isolation and Structural Characterization of Secondary Metabolites from Omani Plants. Speaker: Dr. Fatema Al-Rubaii Chemistry Department, Sultan Qaboos University, Muscat, Oman.
ROOM 2 Track 2: Renewable Energy and Sustainable Materials (RESM) Chair: Prof. Rachid Sbïaa	
11:00-11:15	Investigating the Impact of Soiling on the Performance of Various Solar Cell Technologies. Speaker: Dr. Hanan Albuflasa Department of Physics, College of Science, University of Bahrain, Sakhir, Kingdom of Bahrain.
11:20-11:35	Controlled Domain Wall Oscillations and Stability in Stepped Magnetic Nanowires for Multi-state Storage Memory. Speaker: Dr. Sulaiman Al Risi Department Supportive requirements, University of Technology and Applied Sciences, Shinas, Al Uqer, Oman.
11:40 -11:55	Antifouling Properties of Copper Oxide Microparticles and Zinc Oxide Nanoparticles in Greenhouse Cooling Systems. Speaker: Ms. Azhar Al-Busaidi Department of Marine Science and Fisheries, College of Agricultural and Marine Sciences, Sultan Qaboos University, Al Khoud, Oman

12:00-12:15	Sustainable Energy Management within Construction-Field in Oman, Speaker: Dr. Milad Heidari Global College of Engineering and Technology (GCET), Muscat, Oman.
ROOM 3 (ADM003) Track 3 Interdisciplinary Sustainability in Science (ISS) Chair: Dr. Einas Osman Online Session	
11:00-11:15	Single-Cured PDMS Hybrid Composites with TiO₂-Silicone Oil/Glycerol for Sustainable and Enhanced Dielectric Actuators. Speaker: Mr. Ahmad Farimin Osman Faculty of Artificial Intelligence and Engineering, Multimedia University, Persiaran Multimedia, Cyberjaya, Selangor, Malaysia.
11:20-11:35	Advancement in Surface Tailoring of Activated Carbon from Omani Date Palm Leaflets for Efficient Removal of Pharmaceuticals from aqueous solution and Hospital Wastewater. Speaker: Dr. Syeda Naheed Furqan Chemistry Department, College of Science, Sultan Qaboos University, Al-Khouth, Muscat, Oman.
11:40-11:55	Spin Polarized Dichalcogenide Alloy for Selective Adsorption of Gases. Speaker: Dr. Ahmad I. Ayesh Department of Physics and Materials Sciences, College of Arts and Sciences, Qatar University, P. O. Box 2713, Doha, Qatar.
12:00-12:15 Online	Impacts of Climate Change on Crop Development and Yield in The Nigerian Sahel Savanna: A Review. Speaker: Dr. Isa Magaji Azare Department of Environmental Management and Toxicology Federal University, Dutse, Jigawa State, Nigeria.

Lunch Break

12:15 PM – 13:30

Venue: Auditorium

Keynote Session 6

Chair: Prof. Nasiruddin Khan

13:30– 14:00

Construction and Structure Tailoring of Hybrid and Assembly Materials with Smart Surfaces for Oil Water Separation and Wastewater Treatment,

Speaker: **Dr. Nisar Ali**

Department of Basic and Applied Sciences, College of Applied and Health Sciences, A`Sharqiyah University, Ibra, Oman.

Parallel Sessions

14:15 – 16:15

Online session

Chair: Prof. Nasiruddin Khan

14:00– 14:15

Harnessing Green Chemistry to Develop Kinase-Inhibiting Di ideas for Cancer Therapy, 1Department of Medicinal Chemistry.

Speaker: Dr. Asmaa Said Yassen
Faculty of Pharmacy, Galala University, New Galala 43713, Egypt.

14:20– 14:35

Pyrene-Based Fluorescent Porous Organic Polymers for Recognition and Detection of Pesticides.

Speaker: Dr. Md. Serajul Haque Faizi
PG Department of Chemistry Langat Singh College (B R A Bihar university) Muzaffarpur Bihar India.

14:40– 14:55

Sustainable Chemiluminescence Biosensing via Nano-catalyst-Activated Dissolved Oxygen for Sensitive Hemin Detection.

Speaker: Dr. Abubakar Abdussal
Department of Pure and Industrial Chemistry, College of Natural and Pharmaceutical Sciences, Bayero University, Kano, Nigeria.

15:00– 15:15	Advanced Data Analytics in Sustainable Environmental Management: Models, Applications, and Emerging Trends. Speaker: Mr. Mohammed Ashfaque Department of IT, Buraimi University college (BUC), Buraimi, Oman.
15:20– 15:55	Cu(II)-based coordination polymer and its composite featuring electrochemical energy storage. Speaker: Dr. Musheer Ahmad Department of Applied Chemistry, Faculty of Engineering & Technology, Aligarh Muslim University Aligarh, Uttar Pradesh, India
<i>In-person Parallel Sessions</i> 14:15 – 16:15	
ROOM 1 (ADM001) Track 1: Green Chemistry and Sustainable Synthesis (GCSS) Chair: Dr. Abdullahi Aliyu	
14:00– 14:15	Molecular and Elemental Fingerprinting of Indoor Residuals in Muscat: Evidence of Organic and Heavy Metal Contaminants. Speaker: Mr. Khalid Al-Maqbali Chemistry Department, Sultan Qaboos University, AL Khoudh, Muscat, Sultanate of Oman.
14:20– 14:35	A study on Wind-Propulsion Technology (WPT) for Sustainable Shipping industries. Speaker: Dr. Sivasakthivel Thangavel Department of Mechanical Engineering, Global College of Engineering and Technology (GCET), Ruwi, Muscat, Oman.
14:40– 14:55	From Waste to Worth: Sustainable Innovation through Palm Frond Utilization in Oman. Speaker: Ms. Saada Alhabsi Department of Health, Safety Engineering and Management, International College of Engineering and Management, Muscat, State, Oman.

15:00– 15:15	Green Microfluidics for Sustainable Microparticle Production: A Low-Solvent Approach to Advanced Materials. Speaker: Ruqaiya Saif Al Nuuni Department of Chemical Engineering, Loughborough University, Loughborough, Leicestershire, UK.
<i>ROOM 2 (ADM002)</i> Track 2: Renewable Energy and Sustainable Materials (RESM) Chair: Dr. Mohammed Al Hinaai	
14:00– 14:15	Hybrid Renewable Energy Systems for Sustainable Industrial Applications. Speaker: Dr. Jeyaprakash Natarajan Global College of Engineering and Technology (GCET), Muscat, Oman.
14:20– 14:35	Solar-Powered Reverse Osmosis for Sustainable Saltwater Desalination. Speaker: Dr. Said Al-Khalasi UNESCO Chair on Aflaj Studies and Archaeo-Hydrology, University of Nizwa, Oman.
14:40– 14:55	Sustainable Green Antimicrobial Food Coating by Hydroxypropyl Cellulose Conjugated Gold Nanoparticles. Speaker: Dr. Sadia Mehmood Department of Chemical and Energy Engineering, Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Mang, Haripur, Pakistan.
15:00– 15:15	Unveiling the Influence of Calcination Temperature on Structural and Optical Properties of (NiO)_{0.5}-(ZrO₂)_{0.5} Nanoparticles Synthesized via Thermal Treatment. Speaker: Dr. Ibrahim Garba Shitu Department of Physics, Faculty of Science, Sulalewa University Kafin Hausa, Jigawa State, Nigeria.
<i>ROOM 3 (ADM003)</i> Track 3: Interdisciplinary Sustainability in Science (ISS) Chair: Mr. Fahad Al-Abri	

14:00– 14:15	Catalytic Upcycling of Linear Low-Density Polyethylene (LLDPE) to Propylene via Isomerizing Ethenolysis: A Microkinetic Modeling Approach. Speaker: Mr. Abdullah M. Al Maharbi Department of Engineering, German University of Technology in Oman (GUtech), Muscat, Oman.
14:20– 14:35	ViT- SegNet -ASFF: A Transformer-Driven IoT Framework for Real-Time Aerial Surveillance and Multi-Object Segmentation. Speaker: Ms. Rudaina Ahmed Al Hasani Process Engineering Department, International Maritime College Oman, National University of Science and Technology, Sohar, Oman.
14:40– 14:55	Dose Reliant Photo-Degradation of RhB Dye from Tricomponent (RhB, MB and Ciprofloxacin) Mixed Pollutant System Using Mixed Ligand Cd-MOF. Speaker: Mr. Vibhav Shukla Department of Chemistry, National Institute of Technology, Raipur, Chhattisgarh, India.
15:00– 15:15	Photocatalysis and Adsorption: An efficient and Sustainable approach for the Purification of Wastewater Using Natural and Composite Adsorbent–Catalyst Systems Speaker: Dr. Masood Ahmad Chemistry Section, Department of Applied Science and Pharmacy, University of Technology and Applied Sciences, PC 133, Sultanate of Oman.
<i>Closing Ceremony (Auditorium)</i> 16:00 – 17:00	



