POSTER PRESENTATION (03:00 pm)

INTERNATIONAL CONFERENCE
SUSTAINABILITY IN DESIGN, ENGINEERING AND ARCHITECTURE
31 OCTOBER 2026 [Saturday]

CHEMICAL AND FOOD TECHNOLOGY

SESSION CHAIR: Mr. Naseem Ahmad Khan, Mr. Ashraf Mateen

S. No.	TRACK ID	TOPIC AND AUTHOR
1	SDEA-2026-0006	**CFD-Based Hydrodynamic and Mass Transfer Optimization of Spacer Geometries in High-Pressure Reverse Osmosis Systems for Zero Liquid Discharge Applications** Devanshi Gupta, Afifa Khan
2	SDEA-2026-0030	**Stimuli-Responsive Edible Ink for 4D Food Printing: A Novel Approach to Intelligent Food Design** Pir Mohammad Junaid*, Sadaf Zaidi**, Sadaf Ahmad*, Rashid Imran Ahmad Khan*
3	SDEA-2026-0039	**Food Adulteration: A Hidden Threat** Vedant Bhardwaj
4	SDEA-2026-0040	**Non-thermal food processing Technologies** Rohit Kumar
5	SDEA-2026-0042	**From Waste to Fuel: Eggshell-Derived CaO for Sustainable Biodiesel Production from Inedible and Waste Cooking Oils** Dr. Rashid Imran Ahmad Khan, Sadaf Ahmad, Dr. Pir Mohd. Junaid
6	SDEA-2026-0044	**Integrating Ionic Liquids for Circular Agri Food Waste Valorization** Syed Ayanul Hasan
7	SDEA-2026-0051	**Adaptive or Closed-loop packaging for foods - Future direction** Sadaf Ahmad*, Sadaf Zaidi**, Rashid I. A. Khan*
8	SDEA-2026-0087	**Adulteration in Spices and Its Impact on Human Health: A Review** Parul Singh
9	SDEA-2026-0102	**Non-Thermal Food Processing Technologies: A Review of Emerging Approaches for Sustainable Food Preservation and Quality Retention** Faizah Fatima Zaidi
10	SDEA-2026-0121	**Recent Advancement in Thermal and Catalytic Pyrolysis of Plastic Waste to Liquid Hydrocarbon** Mohd Gulam Waris Khan, Dr. Hasan Akhtar Zaidi

11	SDEA-2026-0125	**Sustainable Recovery of Bioactive Compounds from Food By-Products: Emerging Green Extraction Technologies** Amaan Ul Kareem*, Mo Umaish Siddiqui**
12	SDEA-2026-0126	**Simulation of Municipal Solid Waste Gasification for Syngas Production using Aspen Plus** Aishatul Bushra, Arohi Shandilya, Wasi Ur Rahman
13	SDEA-2026-0135	**Green Hydrothermal Synthesis and Physicochemical Characterization of Peanut Shell-Derived Carbon Quantum Dots (CQDs)** Dharmender Kumar, Satya Vir Singh
14	SDEA-2026-0231	**Deep Eutectic Solvents as Sustainable Alternatives to Conventional Organic Solvents: A Comparative Study** Sumbul Chauhan

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S. No.	TRACK ID	TOPIC AND AUTHOR
1	SDEA-2026-0049	**Machine Learning-Assisted Techno-Economic Assessment of Large-Scale Green Ammonia Production: Prediction, Scenario Analysis, and Feasibility Evaluation** Mohd Anas Adnan, Moina Athar
2	SDEA-2026-0077	**Comparative Aspen Plus Simulation of Biodiesel Transesterification Processes: Reactor-Stage Benchmarking Against Literature and a Temperature-Sensitivity Study** Sana Fatima
3	SDEA-2026-0081	**Application of Microalgae for Sustainable and Economical Wastewater Biotreatment** Sundus
4	SDEA-2026-0122	**Optimisation of Rheological and Interfacial Properties of Polymer–Surfactant Systems for Sustainable Enhanced Oil Recovery – A Review** Dr Najam sardar
5	SDEA-2026-0143	**Smart and Sustainable Water-Based Drilling Fluids: Recent Advances, Challenges and Future Perspectives** Sundus
6	SDEA-2026-0150	**Determination of Particle Size of Carbon Black Using Dynamic Light Scattering (Dls) Method** Deependra Kumar
7	SDEA-2026-0154	**A Review on Sustainable Catalysts for Low-Cost Biodiesel Production: Advances, Techno-Economic Insights, and Future Perspectives** Manya gaur, Rameez Ahmad Aftab, Moina Athar
8	SDEA-2026-0158	**Comparative Aspen Plus Simulation of Biodiesel Transesterification Processes: Reactor-Stage Benchmarking Against Literature and a Temperature-Sensitivity Study** Sana Fatima
9	SDEA-2026-0159	**The Impact of Geopolitical Factors on Global Oil and Gas Supply Chain Sustainability** Km Muskan
10	SDEA-2026-0176	**Integrated Electrochemical Conversion of Carbon Dioxide into Value-Added Chemicals: Advances in Carbon Capture, Catalysis and Reactor Design** Khadija Fatima Abbasi
11	SDEA-2026-0238	**Thiourea-Linked Triazine Porous Organic Polymers for CO2 Capture** Ghaniya Mirza

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SESSION CHAIR: Prof. Faisal Hasan, Dr. Azra Parveen

CIVIL ENGINEERING		
S. No.	**TRACK ID**	**TOPIC AND AUTHOR**
1	SDEA-2026-009	**Enhancing Urban Safety and Sustainable Infrastructure Planning through Ground Penetrating Radar-Based Utility Mapping** Ashvini Kumar Yadav*, Krishna Kumar Yadav*, Satish Kumar Sinha*, Alok Saini**
2	SDEA-2026-0130	**Performance Evaluation of an MBR-Based JOHKASOU System for Organic Matter Removal from Domestic Wastewater** Varun Mathur*, Yasir Hamid**, A. A. Kazmi**
3	SDEA-2026-0230	**Green Construction Practices: A Critical Analysis of Environmental and Economic Claims Versus Ground Reality** Laiba, Shifa Zareen
INTERDISCIPLINARY AND APPLIED SCIENCES		
1	SDEA-2026-0004	**Hybrid Opto-Electrochemical Sensing for Microplastic Quantization** Shruti Shandilya, Riiya Gupta
2	SDEA-2026-0012	**Enhancement of Structural and Dielectric Properties in Rare-Earth Dysprosium-Doped Manganese Copper Tungstate Dy(x)Mn(0.5-x)Cu(0.5)WO_4 Nanomaterial** Mohammad Asif Adeeb, Faizul Qamar, Shakeel Khan
3	SDEA-2026-0022	**Photocatalytic Upcycling of Pet Microplastics into High-Value Chemicals** Gazal Nazir, Yasser Azim
4	SDEA-2026-0027	**Cr-Substituted Ni–Co Ferrites as Composition-Tunable Advanced Functional Magnetic Materials** Abu Hanifa, Dr Z. Hasan, Mohammad Ammar
5	SDEA-2026-0032	**Multiplicity and Entropy Production in pp Collisions at SPS and LHC Energies** Omama Rubza, M. Mohisin Khan, Shakeel Ahmad
6	SDEA-2026-0034	**Elucidating Fluorescence Sensing Mechanism for Nitroaromatic Explosives: A Comprehensive Review** Mohd Adeel Khan, Farman Ali
7	SDEA-2026-0059	**pH- and Magnetic-Field-Responsive Smart Polymeric Hydrogels for Selective Removal of Dyes and Heavy-Metal Ions from Wastewater** Sahil Khan, Yasser Azim
8	SDEA-2026-0064	**Topic- Zero Liquid Discharge for Sustainable Wastewater Management: Technologies and future perspectives** Mohammad Sadan

9	SDEA-2026-0067	**Structural and Dielectric Modulation of Li-Doped Mg-Zn Ferrite Nanomaterials Synthesized by the Sol-Gel Method** Abdul Rehman Haafiz, Dr. Syyed Asad Ali
10	SDEA-2026-0098	**Multiferroic and Multifunctional Properties of Sol–Gel Synthesized Nanocrystalline NdFeO3** Faizul Qamar, Mohammad Asif Adeeb, and Shakeel Khan
11	SDEA-2026-0123	**Topic- Zero Liquid Discharge for Sustainable Wastewater Management: Technologies and future perspectives** Mohammad Sadan and Yasser Azim
12	SDEA-2026-0166	**Land Assembly for Sustainable Urban Development in India: A Comparison of Delhi and Ahmedabad** Pallavi Varshney*, Dr. Syed Mohammad Noman Tariq**
13	SDEA-2026-0202	**Ultrasound-Assisted Heterogeneous Fenton-like Degradation of Tetracycline Hydrochloride Using CeO2 Nanoparticles and Its Kinetic Studies** Subiya Nasir, Mohammad Zulfiqar Ali Rafiquee
MECHANICAL ENGINEERING		
1	SDEA-2026-0023	**Nitric Oxide Formation in the Combustion of Diesel–Biodiesel Fuel Droplets** Kunwar Masoom Ali Khan, Garvit Kumar Sharma, Dr S. S. Alam
2	SDEA-2026-0047	**Nanoparticle-Enhanced Biodiesel Combustion in CI Engines: A Critical Review of Performance-Emission Trade-offs and Research Gaps** Manu Aditya Pratap Singh
3	SDEA-2026-0082	**Comparative Life Cycle Assessment of Solar PV, Wind, and Biomass Power Generation in the Indian Manufacturing Context: Addressing Regional Data Gaps** Ali Mohammad
4	SDEA-2026-0239	**Development of a Digital Twin Architecture for Real-Time Monitoring and Parameter Optimization of FDM Additive Manufacturing** Syed Ismail Sultan, Hammad Hayat, Syed Muhammad Hamza Hasan Rizvi, Dr. Faisal Hasan

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COMPUTER ENGINEERING		
S. No.	**TRACK ID**	**TOPIC AND AUTHOR**
1	SDEA-2026-0011	**Explainable AI for Early-Stage Embodied-Carbon Assessment: From Prediction to Design Scenarios** Faiz Sultan, Mohd Amaan Siddiqui
2	SDEA-2026-0156	**Cryptographic Pseudo Random Generator: A Comparative Study** Nandini Varshney, Dr. Izharuddin, Dr. Abdus Samad
3	SDEA-2026-0205	**Beyond Backpropagation: Biologically Plausible Learning as a Route to Low-Power, Sustainable AI Training** Mohammad Yousuf Raza, Shashwat Singh, Tabish Shah Mohsin
ELECTRICAL ENGINEERING		
1	SDEA-2026-0155	**Unsupervised early Fault Detection and Severity Assessment of Power-Electronic Converters for EV Fast-Charging Systems** Shrestha Ratnam, MD Zeeshan Alam
2	SDEA-2026-0221	**Cyclic Latin-Square Reconfiguration of TCT Photovoltaic Arrays for Enhanced Power Extraction Under Partial Shading** Hashir Waqar*, Dr Safiya Akhtar Kazmi**
ELECTRONICS ENGINEERING		
1	SDEA-2026-0109	**Video-Enabled Indirect Ophthalmoscope for Real Time Observation and Recording** Md Alquama Hassan
2	SDEA-2026-0116	**ASIC Design and Implementation of an Active Bandpass Filter in 180 nm CMOS Technology** Mohd Hasir, Aiman Malik, Mohd Wajid
3	SDEA-2026-0184	**Water Level Monitoring and Evaporation Assessment using Embedded System: A Hardware Implementation** Sania Zehra Naqvi*, Rupendra Kumar Pachauri**