

Second International Conference
on
Sustainable Advanced Technologies for Environmental Management (SATEM-2025)
Civil Engineering Department, IEST, Shibpur during December 15-17, 2025
Program Schedule

Day I	15/12/2025
09:30 – 10:30	Registration
10:30 – 11:30	Inauguration
11:30 – 11:45	High Tea
11:45 – 13:00	Key Note Lecture by Prof. Joseph Akunna, Abertay University, UK Topic: Sustainable Water Pollution Control Technologies in Urban settings
13:00 – 14:15	Lunch Break
14:15 – 16:00	<i>Technical Session I: Advanced Wastewater Treatment Technologies</i> <i>Session Chair: Prof. Pankaj Roy, Jadavpur University</i> <i>Session Co-Chair: Dr. Ujjwal Saha, IEST, Shibpur</i> <ol style="list-style-type: none"> 1. Treatment of Greywater by Photochemical Advanced Oxidation Processes and Optimized using Response Surface Methodology (Annu Kumari) (Paper ID 78) 2. Performance Assessment of UV/H₂O₂ Process for Treatment of a Textile Dyeing Effluent (Arkadeep Pal) (Paper ID 51) 3. Biomedical Wastewater Management: Comprehensive Assessment, Treatment Optimization, and ANN Predictive Modeling (Lairenlakpam Helena) (Paper ID 24) 4. Reactive Orange 84 Degradation using Anodic Oxidation and Optimization using Central Composite Design (Md Mahboob Alam) (Paper ID28R) 5. Red Soil–Derived Alkali-Activated Binder as a Sustainable Adsorbent for Crystal Violet Dye (Souvik Das) (Paper ID 72) 6. Reactive Red 141 Degradation using Ceramic Membrane Integrated Two-Chamber Electrolysis and Optimization through Box–Behnken Design (Budhodeb Biswas) (Paper ID 38R) 7. Feasibility of Enhanced Biological Phosphorous Removal from Real-life Wet Market Wastewater: A Laboratory Scale SBR Study (Mainak Maiti) (Paper ID 75R)
16:00 – 16:15	Tea Break
16:15 – 18:00	<i>Technical Session II: Advanced Water Treatment Technologies and Sustainable Water Quality Management</i> <i>Session Chair: Sunita Adhikary, Jadavpur University</i> <i>Session Co-Chair: Dr. Dipalok Majumder, IEST, Shibpur</i> <ol style="list-style-type: none"> 1. Adsorption Kinetics of Cr(VI) on Filter Waste Charcoal Surfaces from Wastewater (Devjani Das) (Paper ID 15) 2. A Comparative Study of Laboratory and IoT based Water Quality Monitoring in Bhawanipatna, Kalahandi (Sudhansu Sabar) (Paper ID 77R) 3. Performance Evaluation of Conventional Electrodialysis Cell for Brackish Water to Fresh Water Generation (Saraswat Dey) (Paper ID 39R) 4. Using the SWAT Model to Assess the Impacts of Landuse Changes on Water nutrient for an Ungauged Semi-arid Watershed (Bittu Kumar) (Paper ID 8) 5. Clogging Remediation and Performance Recovery of Subsurface Flow Constructed Wetlands Treating Domestic Wastewater (Kirti Ranjan Sahu) (Paper ID 30R) 6. Seasonal Variation in Pond and Groundwater Quality of Bhawanipatna Town, Odisha (P.Sanghamitra) (Paper ID 74R) 7. Photocatalytic Effect of Synthesized CuO Nanoparticles on Malachite Green Degradation from Wastewater (Saismrutiranjana Mohanty) (Paper ID 16)

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Day II	16/12/2025
10:00 – 11:15	Key Note Lecture by Prof. Sudarshan Kurwadkar, California State University, Fullerton Topic: From Silent Contaminants to Systemic Change: PFAS, Community Health Risks, and the Imperative for Advanced Environmental Solutions
11:15 – 11:30	Tea Break
11:30 – 13:30	<i>Technical Session III: Solid and Hazardous Waste Management</i> <i>Session Chair: Prof. Tumpa Hazra, Jadavpur University</i> <i>Session Co-Chair: Dr. Saptarshi Kundu, IEST, Shibpur</i>
	<ol style="list-style-type: none"> 1. Conversion of Faecal Sludge Biosolids into Insect Protein Using Black Soldier Fly Larvae in a Circular approach (Abhinay Rathod) (Paper ID 29) 2. Aerobic Composting of Vegetable Peels Using Cow Dung Cake and Mature Compost (Ankita Shome) (Paper ID 37R) 3. Characterization of soil like fraction obtained from biomining of legacy waste in Kolkata municipal area (Rajat Panda) (Paper ID 43R) 4. From Waste to Resource: Reviewing Bauxite Residue Integration in Green Construction Materials (Madhu C N) (Paper ID 70) 5. Emergence of Biochar Concrete as a Sustainable Alternative to Conventional Concrete (Swagato Das) (Paper ID 71) 6. Black soldier fly larvae based integrated biorefinery model for valorizing aquaculture sludge & municipal solid waste (Ritika Biswal) (Paper ID 32) 7. Design of a Sustainable Concrete Mix Using Synergistic Integration of Coconut Shell Biochar, Hydrated Lime, and Recycled Aggregate (Antara Balkrishna Kulkarni) (Paper ID 48) 8. Design Of Sustainable Concrete Mix Peanut Shell Biochar, Calcium Carbide Residue and Recycled Aggregates (Rahul B Gawli) (Paper ID 57R)
13:30 – 14:45	Lunch Break
14:45 – 16:00	Key Note Lecture by Prof. Sharad Gokhale, Indian Institute of Technology, Guwahati Topic: Sustainable Strategies for Urban Air Pollution Management
16:00 – 16:15	Tea Break
16:15 – 18:00	<i>Technical Session IV: Assessment and Control of Air Pollution and Management of Emerging Contaminants</i> <i>Session Chair: Dr. Deepanjali Majumder, NEERI, Kolkata Zonal Laboratory</i> <i>Session Co-Chair: Dr. Deep Roy, IEST, Shibpur</i>
	<ol style="list-style-type: none"> 1. Development and Field Calibration of a Low-Cost Multi-Stage Air Sampler for Ambient Particulate Matter Fractionation (Abhra Saha) (Paper ID 59) 2. Seasonal Trends in VOC Pollution in the Urban Areas of South Kolkata (Argha Kamal Guha) (Paper ID 84R) 3. Combined Air and Noise pollution-prone zone mapping and monitoring in an urban environment: A case study of Mumbai city (Siddhi Dhanmeher) (Paper ID 49) 4. Assessment of Community Knowledge and Behavior Contributing to Pharmaceutical Pollution in the Environment (Prachi Dessai) (Paper ID 14) 5. Assessment of Microplastic Contamination and Its Removal by Electrocoagulation in River Ganga Water (Anindya Chatterjee) (Paper ID 34) 6. Analyzing The Changes in Attributes of Capsicum annum Due to Bioplastic Exposure (Riddhi Chongder) (Paper ID 17R) 7. Advanced Bio-Based Packaging for Addressing Emerging Contaminants: Sustainable Integration of Biopolymers and Intelligent Sensors (Ananya G) (Paper ID 62R)

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Day III	17/12/2025
10:00 – 11:30	<p><i>Technical Session V: Advanced Wastewater Treatment Technologies</i> <i>Session Chair: Prof. Anupam Deb Sarkar, Jadavpur University</i> <i>Session Co-Chair: Dr. Sujit Kumar Dalui, IEST, Shibpur</i></p> <ol style="list-style-type: none"> 1. Performance study of an anaerobic packed-bed filter for treatment of oily wastewater (Biswabandhu Chatterjee) (Paper ID 80) 2. Sustainable Approach for Sewage Reuse Using Alum Coagulation Integrated with Artificial Neural Networks (Boynaoton Konthoujam) (Paper ID 10R) 3. Sustainable Bamboo-Derived Activated Carbon for Efficient Congo Red Removal: Experimental Optimization and ANN Modelling (Khoibam Ganitarani Devi) (Paper ID 5R) 4. A Novel Approach for Determining Inhibition Constant in the Haldane Kinetics for Substrate Removal (Tanmoy Bir) (Paper ID 68R) 5. Defluoridation of Water with the Adsorbents Prepared from Banana and Apple Fruit Peel Waste (Kurella Swamy) (Paper ID 76R) 6. Optimization of Methylene Blue Adsorption onto Indigenous Bamboo-derived Activated Carbon using Artificial Neural Networks (Kshetrimayum Kevin) (Paper ID 7R)
11:30 – 11:45	Tea Break
11:45 – 13:00	<p>Key Note Lecture by Prof. Agamuthu Pariatamby, Sunway University, Malaysia Topic: Innovative Sustainable Valorization Techniques for Municipal Solid Wastes</p>
13:00 – 14:15	Lunch Break
14:15 – 16:00	<p><i>Technical Session VI: Solid and Hazardous Waste Management and Case Studies in Urban and Rural Pollution Control and Innovative Techniques for measuring environmental pollutants</i> <i>Session Chair: Dr. Supriya Pal, NIT, Durgapur</i> <i>Session Co-Chair: Dr. Sneha Murmu, IEST, Shibpur</i></p> <ol style="list-style-type: none"> 1. Scenario-Based LCA of Municipal Landfill Waste: Environmental Implications and Sustainable Policy Framework (Dr. Tumpa Hazra) (Paper ID 60R) 2. Geotechnical Characterization of Soil Like Material Recovered from Legacy Waste at an Indian Dump Site. (Subhabrata Mahapatra) (Paper ID 58R) 3. Assessment Of Particulate Pollution from Stone Crushing Operations in a Mineral Quarrying Cluster, West Bengal (Munshi Izaz Refaz) (Paper ID 33) 4. Chemical Activation Approach for Strength and Durability Enhancement of Recycled Fine Aggregate Mortar (Subhadip Pramanik) (Paper ID 44R) 5. Circular Economy of Agriculture: Conversion of Rice Husk into Energy to Reduce Methane Gas Emissions (Dr Neeta Shivakumar) (Paper ID 67R) 6. Valorization of mixed Black Soldier Fly (BSF) Residues through Optimized Pyrolysis for Sustainable Biochar Production (Payal Priyadarshini) (Paper ID 31) 7. Eco-Friendly Tri-Hybrid Bio-Engineered Clay Bricks for Sustainable Construction Shravani S (Paper ID 42R)
16:00 – 16:30	Tea Break
16:30 – 17:30	Valedictory