



Tentative Program

3rd International Conference on
**Environmental Sustainability
through Waste and Recycling**

Dates

April 23-25, 2025

Venue

DoubleTree by Hilton
Houston Intercontinental Airport,
15747 John F. Kennedy Blvd.,
Houston, TX 77032 USA



The United Scientific Group - a 501 c3 non-profit organization is excited to announce the **Third International Conference on Environmental Sustainability through Waste and Recycling on April 23-25, 2025**, dedicated to fostering innovative ideas that can enhance the product pipeline for environmental sustainability through waste management and recycling. The conference brings together a diverse group of professionals, including scientists, researchers, entrepreneurs, CEOs, CSOs, academicians, and technologists from around the world. By facilitating discussions and collaborations, the conference aims to generate new approaches and strategies for minimizing waste, enhancing resource efficiency, and driving sustainable practices that contribute to a healthier and more sustainable future.

Program Last Updated on: March 11, 2025

Last minute changes due to functional, private, or organizational needs can be necessary. The event organizer accepts no liability for any additional costs caused by a change of program. **Program is subject to change.**

Scientific Sessions

- Wastewater Treatment
- Plastic & Paper Recycling Technology
- Food and Agricultural Waste Recycling
- Reduce, Reuse and Recycle
- Waste to Energy
- Zero Waste
- Resource Recovery
- AI in Recycling
- Waste Management technologies
- Recycling Methods
- Environmental Impact
- Transitioning to Circular Economy

- Sustainable Practices
- Governance, Regulations and Policies
- Economic Challenges
- Bio-Medical Waste
- Waste Oil Recycling
- Environmental Modelling
- Digitizing the Waste Industry
- Technology and Innovation
- Chemical Waste Recycling
- Effects of 3R's in climatic change
- Community Trends and Behavioral Habits
- E-Waste Recycling and Management
- Nano waste and Recycling

Tentative program

Moderator: **To be Announced**

Keynote Presentations

	<p>Recycling of Composite Metallic Coatings Brajendra Mishra, Worcester Polytechnic Institute, Worcester, MA</p>
	<p>Beyond Waste Recycling – The Circular Bioeconomy System John Classen, North Carolina State University, Raleigh, NC</p>
	<p>Title will be updated soon!!!! Yongsheng Chen, Georgia Institute of Technology, Atlanta, GA</p>
	<p>A Diagnosis of Solid Waste Management in the State of Amazonas, Brazil Julio Pinheiro, Amazonas State Court of Auditors, Brazil</p>
	<p>Green, Sustainable Process for Recovery of Cathode Active Metals from Spent Lithium-Ion Batteries Sukalyan Sengupta, University of Massachusetts Dartmouth, North Dartmouth, MA</p>
	<p>Landfill Mining of Legacy MSW from Old Dumps in India: Moving towards Sustainability Manoj Datta, IIT Delhi, India G V Ramana, IIT Delhi, India</p>
	<p>Evidential and Contextual Dynamics in the Circular Economy: Insights from Future Thinking and Technological Interventions Xukai Fu, Beijing Jinkai New Energy Environmental Technology Co., Ltd, China</p>
	<p>A Status Report Towards Transitioning to a Global Hydrogen Economy S.A. Sherif, University of Florida, Gainesville, FL</p>
	<p>Extend Fresh Produce Shelf Life with Revolutionary Technology Bruce Roesner, GreenLifeTech Corporation, Banner Elk, NC</p>

Oral Presentations

The Effect of Materiality on Perceptions of Product Recyclability

Kiersten Muenchinger, University of Oregon, Eugene, OR

Planetary Health Rounds: a Novel Approach for Embedding Planetary Health Education into Undergraduate and Post-graduate Medical Curricula

Loukman Ghouti, Dalhousie University, Canada

A Sustainable Future: Leveraging IPD and BIM for Green Construction Success

Ebenezer Fanijo, Georgia Institute of Technology, Atlanta, GA

Assessing the Effectiveness of Free Nitrous Acids in Enhancing Organic Waste Treatment in Anaerobic Digestion: Controlling Problematic Microorganisms and Boosting Biogas Yield

Guangbin Li, University of Maryland, College Park, MD

Closing the Aluminum Loop: An Innovative Process for Black Dross Valorization

Diego Guerrero, Université de Lyon 1, France

Utilization of Peanut Shell Biochar as a Standalone Soilless Medium for Cultivating Leafy Vegetables

Elizabeth Manneh, University Putra Malaysia, Malaysia

Hydrodeoxygenation of bis(2-hydroxyethyl) Terephthalate as a Model Compound of Polyethylene Terephthalate Waste using Spray Pyrolysis Synthesis of γ -Al₂O₃ Supported Ni-Fe catalyst

Seung-Soo Kim, Kangwon National University, South Korea

In-liquid Microwave Plasma Assisted CO₂ Conversion

Chiaki Terashima, Tokyo University of Science, Japan

Alternatives for Solid Waste Management in the Manaus Industrial Pole, Amazonas, Brazil

Alexandre Rivas, Amazonas State Court of Auditors, Brazil

EPR in the United States: What Does Industry need to do to Get Ready for EPR?

Jason Bergquist, RecycleMe, Brunswick, ME

Understanding Household Food Waste in Ireland – Assessment, Environmental Burden, and Mitigation Strategies

Anushree Priyadarshini, Maynooth University, Ireland

The Role of Rural Communities in Sustainable Waste Management

Yareni Ramirez Salado, Autonomous University of Guerrero, Mexico

Transforming PET-G Waste into Electrically Conductive Nanocomposites for Electromagnetic Interference Shielding Applications

Nadia Abdollahi Goraghani, University of British Columbia, Canada

Workflows for Industrial Transition to Circular Economy

Patricia, University of Florida, Gainesville, FL

Green Consumerism, Strategic Cooperation and Corporate Social Responsibility in a Recycling Industry

Tai-Liang Chen, Zhongnan University of Economics and Law, China

Assessing State Bio-Energy Eco-System in India: A System Perspective

Perminder Jit Kaur, IISc Bangalore, India

Water-Energy Nexus: Water Related Energy Efficiency, Production and Extraction

Catherine N. Mulligan, Concordia University, Canada

How to Improve Water Splitting Processes using Environmentally Friendly Catalysts

Aida M Diez, University of Vigo, Spain

Advancing Sustainable Construction with Bio-oil and Biochar: Innovations in Waste Utilization and Carbon Reduction

Sharareh Shirzad, Appalachian State University, Boone, NC,

REEs Precipitation from Phosphogypsum Leachate: Impact of Temperature and Additives

Hajar Bellefqih, Ecole des Mines Saint Etienne, France

Recycling Technology for PV Module Waste and the Carbon Reduction Benefits

Teng-Yu Wang, Industrial Technology Research Institute, Taiwan

Antimicrobial Cellulose Aerogels from Agricultural Waste for Biomedical Applications

Sam Yeo, University of British Columbia, Canada

Investigation on the Stress-strain Relationship of Rubberized Geopolymer

Sunday U Azunna, University Putra Malaysia, Malaysia

Analysis of Factors Influencing the Recycling of Plastic and Composite Packaging Waste using the PESTEL Method

Arturas Torkelis, Kaunas University of Technology, Lithuania

Secondary Environmental Factors Affecting Traits in Plants with Potential for Revegetation of Areas Impacted by Iron Mining Tailings

Fabricio Jose Pereira, Federal University of Alfenas, Brazil

The Feasibility of Material Recovery from Processing the Entire Municipal Solid Waste Stream

Tommy John, Tommy John Engineering, Bandera, TX

Water Supply and Fluoride in the Canary Islands: Health Impact Analysis

Soraya Paz-Montelongo, Universidad de La Laguna, Spain

Bionanotechnology for environmental sustainability

Tatiana Cardoso Bufalo, Federal University of Lavras, Brazil

Efficient Oil-water Separation with Coalescing Technology

Zhaoyang Liu, Hamad bin Khalifa University, Qatar Foundation, Qatar

The Waste Paradox: How Perceptions of Value Shape Consumption and Disposal

Lainika Johnson, TrashLogic, Carmichael, CA

Powering Circular Agriculture: Economic Analysis of Renewable Energy Integration for Sustainable Poultry Farming

Parisa Moghaddam, OHIO state university, Columbus, OH

A Model for Strategic & Financial Valuation of a Waste to Energy Unit

Petros Theodorou, Athens University of Economics and Business, Greece

Cassava Wastewater Valorization for the Production of Biosurfactants

Cristiano Jose de Andrade, UFSC, Brazil

Poster Presentations

Cognitive Dimensions of Environmental Behavior: Enhancing Waste Separation and Public Health through Cognitive Awareness

Darja Kobal Grum, University of Ljubljana, Slovenia

Analysis of Decomposition of Bioplastic Bags in Compost

Crystal Cheng, Torrey Pines High School, San Diego, CA

Sustainable Biocomposites for 3D Printing: Valorization of Lignin and Starch

Shery Rose Quieng, Bioceb, Houston, TX

Enhancing PET Depolymerization via Mechano-Enzymatic Hydrolysis in a Roller Mill

Ali Zaker, McGill University, Canada

Impact of Oil Palm Broom Fiber on the Mechanical Properties of Rice Husk Ash-Cement Concrete

Taofiq Olabanji Mohammed, Georgia Institute of Technology, Atlanta, GA

Assessment of Green Microalgal Strains for Simultaneous Municipal Wastewater Treatment and Heavy Metal Bioremediation

Poomani Penny Govender, University of Johannesburg, South Africa

The Physicochemical Characterisation and Computational Studies of Tilapia Fish Scales as a Green Inhibitor for Steel Corrosion

Krishna Kuben Govender, University of Johannesburg, South Africa

Titles to be announced!!!

Geoff Wang, The University of Queensland, Australia

Satya Narayan Sharma, JBB Technocrat Private Limited, India

Meryem El rharib, University Hassan II, Faculty of science, Ain Chok, Morocco

Aseel A Alnimer, Wilfrid Laurier University, Canada

Elzbieta Rynska, Warsaw University of Technology, Poland

Essaid Bilala, Ecole des Mines Saint Etienne, France

Venkateswara Rao Kode, University of Tennessee at Chattanooga, Chattanooga, TN

Carlo Jaeger, Global Climate Forum, Germany

Ben Lucas, Inland Technology, Inc., Humble, TX

Presentations yet to be confirmed!

Powering Circular Agriculture: Economic Analysis of Renewable Energy Integration for Sustainable Poultry Farming

Parisa Moghaddam, Ohio state university, Columbus, OH

New Methodologies for Evaluating the Accuracy of Textile Sorting Technologies for Recycling

Sarika Bajaj, Refiberd, Cupertino, CA

Life Cycle Assessment for Sustainable Rare Earth Metal Reduction

Sunday Usman, University of Arizona, Tucson, AZ

Revolutionizing Air Quality Prediction: A Gated Recurrent Unit-Based Approach to PM2.5 Forecasting

Hao Zheng, University of Nottingham, China

Driving Sustainability in the Sugarcane Industry: Life Cycle Assessment of Conventional and Emerging Spraying Technologies in Tanzania

Paschal Simon Milindi, University of Dar es Salaam, Tanzania

Waste Reduction as Ethical Behaviour: A Bibliometric Analysis and Development of Future Agenda

Rizwan Mushtaq, EDC Paris Business School, France

Leaching of Metals from Waste Printed Circuit Boards Using Efficient Carboxylic Acid-Based Deep Eutectic Solvents

Emmanuel Anuoluwapo Oke, University of the Witwatersrand, Johannesburg, South Africa

Environmental and Economic Perspectives of Waste Pickers at Landfill Sites in Tshwane Metropolitan Municipality

Tshegofatso Nhabe, University of Johannesburg, South Africa

The Physicochemical Characterisation and Computational Studies of Tilapia Fish Scales as a Green Inhibitor for Steel Corrosion

Krishna Kuben Govender, University of Johannesburg, South Africa

Integration of a Solar Energy System for Powering an Industrial Prototype in Rare Earth Extraction

Wassila Ajar, Ecole des Mines Saint Etienne, France

Combined Effect of Moisture Content and Drying Time on the Quality of Black Pellets Produced from Charcoal Fine

Angelica de Cassia Oliveira Carneiro, Federal University of Vicosa, Brazil

Development of a Voxel-based CAD System for Upstream Life Cycle Design and its Application to LCA

Kanta Hoshiba, Waseda University, Japan

Illegal Dumping of Solid Waste: A Challenge Towards Sustainable Practices

Mpinane Flory Senekane, University of Johannesburg, South Africa

Development of a Quail-Based Closed-Loop Food System for Sustainable Urban Agriculture

Liz Briggs, University of South Florida, Tampa, FL

The Preliminary Achievement of the Establishment of a Green Hospital with the Example of a Hospital in central Taiwan

Yi-Chu Liu, China Medical University Hospital, Taiwan

Enhancing Hydrogen Production: Acidic-Basic Structural Modification of Nickel-based catalysts for Ammonia Decomposition

Reem Albashrawi, Saudi Aramco, Saudi Arabia

Demand Scheduling in Electric Vehicle Charging Stations with V2G Services under Variable Energy Tariffs

Rusber Rodriguez, University of Technology of Compiegne, France

Remote Sensing Based Algorithm to Estimate Park Cooling Aiding Environmental Planning

Sudeshna Haldar, Indian Institute of Technology, India

Analyzing Nestle's Waters and Nespresso Divisions: Systematic Approaches for Improving Corporate Sustainability

Auns Azhar, Univeristas islam internasional Indonesia, Indonesia

Exploring Sustainable Development Options for Rural Areas Based on Environmental Optimization

Ming-Jyh Chen, China Medical University Hospital, Taiwan

Polyolefin-Based Cladding Panels from Discarded Fishing Ropes: A Sustainable Solution for Managing Fishing Gear Waste in Isolated Islands

Zakariae Belmokhtar, University of Sherbrooke, Canada

PRESENTATION SLOTS AVAILABLE !!!!!



Interested In Collaboration and Exhibition!!

Email us: ensure@uniscigroup.org

We Wish to see you at ENSURE-2025

(Houston, TX)

Creating Innovation for a Sustainable Future