



# WWM International

The Resource Recovery People  
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INTERNATIONAL RESOURCE RECOVERY  
CONFERENCE & EXPO ON

## WATER, WASTE MANAGEMENT & ENERGY

**MAY 27 – 28, 2025**  
**CHICAGO, IL USA**

**VENUE: UIC 750 South Halsted Street,  
Chicago, IL 60607, USA. Student Center East - IL Room**

### CONFERENCE PROGRAM & AGENDA

#### Tuesday, May 27, 2025

08:00 - 09:00 AM

**Registration, Networking Breakfast**

09:00 - 09:05 AM

**Welcome Remarks by Master of Ceremonies**

Cliff Haefke, Director ERC UIC

09:05 - 09:15 AM

**WWMI President Welcome Address**

Sam Pappu P.E

09:15 - 09:20 AM

**Introduction of Keynote Speaker**

Cliff Haefke, Director ERC UIC

09:20 - 09:30 AM

**Conference Welcome Address**

Dr. Joanna Groden, Vice Chancellor for Research UIC

09:30 - 09:45 AM

**Conference Spotlight Address**

Randy Conner, Commissioner,  
Chicago Department of Water Management

09:45 - 09:50 AM

**Introduction of Consul General of India**

Khaja Moinuddin P.E, Treasurer WWMI

09:50 - 10:05 AM

**Distinguished Opening Talk**

Somnath Ghosh, IFS Consul General of India, Chicago

10:05 - 10:20 AM

**Conference Featured Speaker**

Margo Markopoulos,  
Director of the Illinois Office of Trade and Investment

10:20 - 10:35 AM

**Conference Keynote Address**

Vice President Patricia Theresa Flynn, MWRDGC

10:35 - 10:55 AM

**WWMI -- Rural Development Alliance**

Inauguration of the program for India and Thailand

10:55 - 11:10 AM

**Conference Keynote Presenter-1**

Thomas Smith, Senior Director,  
Energy Development, Caterpillar

11:10 - 11:25 AM

**Conference Keynote Presenter-2**

Martin Gross, CEO Gross-Wen Tech

11:25 - 11:30 AM

**Conclusion of Inaugural Session**



# MAY 27, 2025

Track – 1 Water/Wastewater	Track-2 Solid Waste	Track-3 Energy Resources
<b>Track Coordinator: Halis Simsek, Assistant Professor, Purdue University</b>	<b>Track Coordinators: Ruth Abbe, President, Zero Waste USA Dr.Krishna Reddy, Professor, UIC</b>	<b>Track Coordinator: Cliff Haefke, Director, ERC-UIC</b>
<b>1:00 pm to 2:00 pm</b>		
<p><b>Session1: Innovations in Industrial and Agricultural Wastewater Treatment</b> <b>Moderator: Karthik Basthi Shivaram, Purdue University</b></p> <p>MWRD – City of Chicago \$6 M partnership project to enhance stormwater Management <b>Justinn Kirk P.E Principal Civil Engineer- MWRD</b></p> <p>UDMSR- A Low cost, reliable, and efficient system for decentralized treatment of Sewage. <b>Prof Upendra Patel- MS University Baroda, India</b></p> <p>Valorization of High Strength Industrial Wastewater <b>Dr. Meltem Urgun-Demirtas, Ph.D Argonne National Laboratory</b></p>	<p><b>Session1: Accelerating Environmental Outcomes in Waste Management</b> <b>Moderator, Ruth Abbe, President, Zero Waste USA</b></p> <p>Resource Recovery Potential of Bioreactor Landfills. <b>Dr.Krishna Reddy, Professor, UIC</b></p> <p>Large-Scale Assessment of PFAS Sequestration in MSW Landfills <b>Prof. Milind V. Khire, UNC, Charlotte</b></p> <p>Improving Environmental and Economic Outcomes of Legacy Coal Ash Ponds <b>Grace Wilken, Sustainability Specialist, Illinois Sustainable Technology Center, Urbana, IL</b></p>	<p><b>Session 1: How are Wastewater Facilities Achieving their Energy and Sustainability Goals?</b> <b>Moderator: Cliff Haefke, ERC, UIC</b></p> <p>Achieving Net Energy Positive Wastewater Treatment in OurLifetimes <b>Bryan Maxwell, Illinois Sustainable Technology Center</b></p> <p>Case Studies from Around the Globe Exploring Net Zero Carbon Goals <b>Marcello Pibiri, ERC, UIC</b></p> <p>Biogas CHP in Action: Aligning Infrastructure with Sustainability Goals <b>Jason J. Ruffatti, PE, Baxter &amp; Woodman</b></p>
<b>2:00 PM TO 2:15 PM NETWORKING BREAK</b>		
<b>2:15 PM TO 4:00 PM</b>		
<p><b>Session2: Low-Cost Decentralized Solutions &amp; Case Studies</b> <b>Moderator: Mohit Rana, Purdue University</b></p> <p>Phycoremediation of aquaponic wastewater &amp; optimization of microalgal biomass production <b>Juan Velasquez – Purdue University</b></p> <p>From Pollution to Precision: Blockchain, AI, and Cybersecurity in Modern Wastewater Solutions <b>Nagaraju D &amp; Rameshwar Balanagu- UNFI</b></p> <p>Wastewater Sludge (bio-solids) Management, prospective Regulations and Reuse to achieve effective Circular Economy in India – Need of the Hour <b>Dr. Uday Kelkar- CEO, NJS Engineers India</b></p> <p>Navigating Global Nutrient Limits: Cost-Effective Municipal Wastewater Treatment, Process Modeling, and Energy Recovery Considerations. <b>Karthik Manchala- Virginia Tech</b></p>	<p><b>Session2: Local Governments on the Path to Zero Waste</b> <b>Moderator, Teresa Bradley, CEO, Race to Zero Waste, President, National Recycling Coalition</b></p> <p>Advancing Zero Waste &amp; Circular Economy Practices in Chicagoland <b>Anthony Tindall, Solid Waste Coordinator, Cook County, Illinois</b></p> <p>Berkeley's Zero Waste Master Plan – Policies, Programs &amp; Infrastructure <b>Christienne de Tournay, Chair, Berkeley, California Zero Waste Commission</b></p> <p>Local Government Path to Zero Waste <b>Marta Keane, National Recycling Coalition, Will County Green, Illinois</b></p> <p>Panel Discussion: Rural Community Development- Water and Waste Management perspective <b>Moderator: Dr.Prakasam Tata, Executive Director, Center for the Transformation of Waste Technology</b></p> <p>Panelists: Dr.Ratnam Chitturi, Founder at North South Foundation <b>Shilpa Alwa, Founder and Executive Director, Surge for Water</b> <b>Dr. Abdul Salam Mohammed, CEO Markaz Knowledge City, India</b> <b>Suneel Rajavaram, Senior Manager, CAWST, Canada</b> <b>Srinivasa Alluri, Founder and President, Global Charity Manavatha, India</b> <b>Thanet Natisri, American Ground Water Systems, Thailand</b></p>	<p><b>Session 2: What will the future look like? Hydrogen, Carbon Capture, Solar, and Batteries?</b> <b>Moderator: Thomas Smith, COGEN World Coalition &amp; CHP Alliance</b></p> <p>Energy Management at WRRFs - Is Hydrogen a Viable Option? <b>Brendan Wolohan, Carollo Engineering</b></p> <p>SMARTFARM - Carbon Capture by Energy Crops <b>Prof. Gopal Kakani, University of Florida</b></p> <p>Strategic Energy Management with Solar and Large-Scale On-Site Batteries <b>Ben Bezark, Greenleaf Advisors, LLC</b></p> <p>Strategic Energy Master Planing for Wastewater Treatment Plants <b>Joe Marino, Brown &amp; Caldwell</b></p>

# MAY 28, 2025

Track – 1 Water/Wastewater	Track-2 Solid Waste	Track-3 Energy Resources
Track Coordinator: Halis Simsek, Assistant Professor, Purdue University	Track Coordinators: Ruth Abbe, President, Zero Waste USA Dr.Krishna Reddy, Professor, UIC	Track Coordinator: Cliff Haefke, Director, ERC-UIC
9:00 AM TO 10:00 AM		
<p>Session3: New Technologies in WasteWater Treatment <b>Moderator: Stephen McCracken</b></p> <p>A New Integrated Approach to Beneficial Uses of Biogas-CO2 in Wastewater Treatment <b>Bryan Johnson- ETI, LLC</b></p> <p>Recover, Rinse and Repeat: Sponge -based Reusable Platform for Sustainable Remediation <b>Prof. V Dravid- North Western University</b></p> <p>Harnessing Electroconductivity in New Generation Membranes for Desalination <b>Prof. Swatantra Pratap Singh- IIT Bombay</b></p>	<p>Session3: Beneficial Reuse of Byproducts <b>Moderator: Christienne de Tournay, Berkeley Zero Waste Commision</b></p> <p>Land Application of Biosolids: Managing Practices, Regulatory Requirements and Public Perception Challenges <b>Dr.Albert Cox, MWRD Chicago</b></p> <p>Potential and Implications of Reusing Food Industry Byproducts for Geotechnical Applications <b>Dr.Arvin Farid, Boise State University, Boise, ID</b></p> <p>Creating Zero Waste Solutions through Leadership and Innovations Sustainable Solid Waste Solutions in Mexico <b>Frank Avila, CEO, Avila Law Group</b></p>	<p>Session 3: Sustainable Energy Strategies for Wastewater Facilities: Energy Efficiency, Co-Digestion, Renewable Natural Gas, and Combined Heat &amp; Power <b>Moderator: Cliff Haefke, ERC, UIC</b></p> <p>Optimizing Energy Use: Finding Savings and Beginning Your Plan <b>Faaran Bangash, USDOE Industrial Assessment Center at UIC</b></p> <p>Economics of Biogas Production and Selling RNG from Co-digestion of Food Waste in WWTP Digesters <b>Paul Baker, Guild Associates Inc.</b></p> <p>Biogas to Energy: Proven CHP Solutions for Sustainable Wastewater Treatment <b>Greg Bruch, Clarke Energy</b></p>
10:00 AM TO 10:15 AM NETWORKING BREAK		
10:15 AM TO 11:30 AM		
<p>Session4: Wastewater Treatment in Agriculture and Rural Area <b>Moderator: Juan Velasquez – Purdue University</b></p> <p>Integrating Resource Recovery with Rural Development: A Case Study of Markaz Knowledge City, India <b>Dr. Abdul Salam Mohammed- CEO, Makaz Knowledge city, India</b></p> <p>Bioremediation of high strength industrial effluent using algal-bacterial consortia: Nutrient reduction and microbial insights <b>Karthik Basthi Shivaram – Purdue University</b></p> <p>Feeding black soldier fly larvae using treated agricultural wastewater sludge: A zero-waste sustainable solution <b>Nowrin Aktar Shaika- Purdue University</b></p>	<p>Session 4: Zero Waste and Circular Economy <b>Moderator: Peter Adrian, National Recycling Coalition</b></p> <p>Rotary Club Leadership Promoting Zero Waste Strategies in Kathmandu Nepal <b>Ruth Abbe, President, Zero Waste USA</b></p> <p>Extended Producer Responsibility (EPR) and Circular Economy: A Paradigm Shift in Sustainable Resource Management <b>Prof. Kaushik Bandyopadhyay, Jadavpur University, Kolkata, India</b></p> <p>Resource Efficiency: The New Leadership Imperative for a Circular Future <b>Dr. Garry Cooper, CEO and Co-Founder of Rheaply</b></p>	<p>Session 4: Modernizing Energy Infrastructure: Grid Challenges, Distributed Solutions, and Scientific Advancements <b>Moderator: Kenneth Hultquist, Energy Resources Center, UIC</b></p> <p>Challenges of Grid Infrastructure and How Onsite Energy Solutions are Supporting the Changing Electric Grid <b>Graeme Miller, U.S. DOE Midwest Onsite Energy TAP</b></p> <p>Decentralized Power with Centralized Benefits: Enabling a Smarter Grid with Distributed Energy Resources and Microgrids <b>Suresh Jambunathan, Energy &amp; Water Development, LLC</b></p> <p>Advancing Distributed Energy Solutions in Wastewater and Municipal Solid Waste Facilities: Innovation in Action <b>Nick Halabi, Caterpillar</b></p> <p>Session 5: Microalgae, Biochar, and Co-Digestion – Pathways to a Sustainable Bioenergy Future <b>Moderator: Marcello Pibiri, ERC, UIC</b></p> <p>Sustainable Biodiesel Production from Wastewater-Grown Microalgae: Advancing Clean Energy and Circular Bioeconomy <b>Levent Kilic, Purdue University</b></p> <p>Corn Stalk Biochar for Improved Biomethanation of Aquaponics Residue <b>Mohit Rana, Purdue University</b></p> <p>Effect of Mixing Ratio on Anaerobic Co-Digestion of Aquaculture Sludge and Corn Husk <b>Rajesh Nandi, Purdue University</b></p>

# RESOURCE RECOVERY CONFERENCE MAY 28TH 2025 | VALEDICTORY PROGRAM

**1:00 – 2:00 PM**

**Panel Discussion: “Planning for a Sustainable Future: Aligning Community Infrastructure with Energy and Environmental Strategies”**

**Moderator:**

**Cliff Haefke Director ERC UIC**

**Panelists:**

**Dr. Sharon Waller, Commissioner MWRDGC**

**Dr. Catherine O’Connor, Director of Engineering, MWRD**

**Dr. Uday Kelkar- CEO, NJS Engineers India**

**Martin Jacobson - Senior Engineer, ComEd**

**Brent Perz, Vice President, Baxter & Woodman**

**2:00 – 2:10 PM**

**Valedictory Keynote Speaker-1**

**Lou Sandoval, President & CEO IL Chamber of Commerce**

**2:10 – 2:20 PM**

**Valedictory Keynote Speaker-2**

**Dr. Sharon Waller, Commissioner MWRDGC**

**2:20 – 2:30 PM**

**Valedictory Keynote Speaker-3**

**Dr. Catherine O’Connor, Director of Engineering, MWRD**

**2:30 – 3:15 PM**

**WWM International Award of Excellence in  
Resource Recovery Awardees:**

**1) Dr. Prakasam Tata,**

Executive Director, Center for Transformation of Waste Tehnology

**2) Cliff Haefke,**

Director, Energy Resources Center, University of Illinois Chicago

**3) Dr. Krishna Reddy,**

Professor of CME University of Illinois, Chicago

**4) Ruth Abbe,**

President, Zero Waste USA

**5) Dr. Uday Kelkar,**

Managing Director and CEO NJS Engineers India

**6) Dr. Abdul Salam, CEO**

Markaz knowledge City, India

**3:15 - 3:20 PM**

**Vote of Thanks: Chetan Kale, Secretary WWMI**



**Honoring the WWMI Conference Patrons:**

**Mohammed Abdul Nayeem**

Chairman, Masah Construction Company, Saudi Arabia



Lou Sandoval



Dr. Sharon Waller



Dr. Catherine O'Connor



Dr. Prakasam Tata



Cliff Haefke



Dr. Krishna Reddy



Ruth Abbe



Dr. Uday Kellkar



Dr. Abdul Salam