

Jacobs Workshops at WEFTEC 2023—Sunday, 10/1

Workshop Session		Workshop Time	Room Location
Presentation Time	Presentation Title	Jacobs Presenter Name	
Sunday, 10/1			
	<u>W05 Aeration Control for Practitioners: Optimization of Aeration, Process, and Energy</u>	8:30 am—5:00 pm	S503
	Facilitator	<i>Leiv Rieger</i>	
	<u>W06 Game-Based Modeling</u>	8:30 am—5:00 pm	S501d
	Workshop Chair	<i>Heather Stewart</i>	
8:40—9:00 am	Why Do We Use Process Models?	<i>Heather Stewart</i>	
	<u>W09 Dewatering Optimization</u>	8:30 am—5:00 pm	S505b
2:30—3:00 pm	Breakout Focusing on O&M	<i>David Oerke</i>	
4:00—4:30 pm	Design Considerations and Case Studies for Dewatered Solids Conveyance	<i>Zwelani Ngwenya</i>	
	<u>W11 Design and Implementation of Membrane Bioreactors in Water Recycling</u>	8:30 am—5:00 pm	S405
3:30—4:30 pm	Hot Topic 2: Nutrient Control in Reuse Flowsheets	<i>Colin Fitzgerald</i>	
	<u>W16 Measuring and Reducing Water Resource Recovery Facility Greenhouse Gas Emissions</u>	8:30 am—5:00 pm	S404a
8:45—9:05 am	Carbon emissions in the wastewater industry and mitigation options within the context of the IPCC Sixth Assessment Report	<i>Emma Shen</i>	

Jacobs Technical Sessions at WEFTEC 2023-Monday, 10/2

Technical Session		Session Time	Room Location
Presentation Time	Presentation Title		Jacobs Presenter Name
Monday, 10/2			
	<u>Primary Treatment Technologies: Should We Settle for Conventional Primary Sedimentation?</u>	1:30 pm—3:00 pm	S401a
	Moderator		Arifur Rahman
	<u>Global Approaches to Tackling Fugitive Methane Emissions</u>	1:30 pm—3:00 pm	S402a
	Moderator		Emma Shen
1:35—1:55 pm	Benchmarking and Reducing Fugitive Methane Emissions from Sludge Treatment and Biogas Handling		Amanda Lake
	<u>What Will Power Water's Future Innovation Ecosystems?</u>	2:00 pm—2:30 pm	Booth 7739, North Hall B
2:00—2:30 pm	What Will Power Water's Future Innovation Ecosystems?		Rick Warner
	<u>Full-scale Thermal Drying System Implementation</u>	3:30 pm—5:00 pm	S501d
	Facilitator		Todd Williams
	<u>Improving Biosolids Treatment Efficiency</u>	3:30 pm—5:00 pm	S403b
	Assistant Facilitator		Joyce Chang
	<u>Advancements and Optimization with Chlorine, Peracetic Acid, and Performic Acid Disinfection</u>	3:30 pm—5:00 pm	S405
4:00—4:30 pm	Performic Acid Testing for Evaluation of Disinfection Efficacy and Toxicity in WWTP Secondary Effluent at Both Laboratory and Onsite Pilot Demonstration		Matt Noesen
	<u>Alternative Approaches to Intensify Secondary Treatment</u>	3:30 pm—5:00 pm	S404a
	Facilitator		Tim Constantine
4:00—4:20 pm	Integrated Fixed-film Activated Sludge (IFAS): Operational Experience in Achieving High Levels of TN Removal With Variable Conditions		William Leaf
	<u>Decarbonization Case Studies</u>	3:30 pm—5:00 pm	S401d
	Facilitator		Blaga Delic

Jacobs Technical Sessions at WEFTEC 2023—Tuesday, 10/3

Technical Session		Session Time	Room Location
Presentation Time	Presentation Title	Jacobs Presenter Name	
Tuesday, 10/3			
	<u>Managing the Modern Media Mix to Keep Your Community Engaged</u>	8:30 am—10:00 am	S505b
	Facilitator	Marci Davis	
8:30—8:50 am	PESO Model Walk-through	Marci Davis	
	<u>The Big Bad Blower: Huffing and Puffing Air Through Your Aeration Basins</u>	8:30 am—10:00 am	S401d
	Assistant Moderator	Arifur Rahman	
	<u>Sidestream Nitrogen Removal: From Established to NextGen</u>	8:30 am—10:00 am	S501a
	Assistant Facilitator	Colin Fitzgerald	
	<u>Applications of Machine Learning in Full-Scale Nutrient Management Part I</u>	1:30 pm—3:00 pm	S504c
	Moderator	Bruce Johnson	
	Assistant Facilitator	Cheng Yang	
2:25—2:40 pm	Mechanistic Modelling Within a Hybrid Controller	Tom Johnson	
2:40-2:50 pm	Facilitated Discussion: Mechanistic Modelling	Tom Johnson	
	<u>Recognize the DRIFT in Asset Management Implementation</u>	1:30 pm—3:00 pm	S501a
1:30—1:50 pm	Ten Years Later: Benefits and Lessons Learned After Implementing a Continuous Sewer Assessment Program at Northern Kentucky SD1	Courtney Kennedy	
2:00—2:20 pm	How Risk-driven Asset Management Re-prioritized Omaha's Flood Protection and Wastewater Lift Station Strategies	Emily Holtzclaw	
	<u>Reconsidering Biological Treatment for Water Purification: Reuse-nutrient</u>	1:30 pm—3:00 pm	S404c
	Moderator	Ryujiro Tsuchihashi	
	<u>Case Studies of Machine Learning in Full-Scale Nutrient Management Part II</u>	3:30 pm —5:00 pm	S505b
	Moderator	Bruce Johnson	
	Assistant Facilitator	Cheng Yang	
4:00—4:15 pm	Agua Nueva WRF ODIN Pilot Case Study	Bruce Johnson	

Jacobs Technical Sessions at WEFTEC 2023—Tuesday, 10/3 (continued)

Technical Session		Session Time	Room Location
Presentation Time	Presentation Title	Jacobs Presenter Name	
Tuesday, 10/3			
	<u>Creating Renewable Revenue Streams with RNG</u>	3:30—5:00 pm	S402b
	Assistant Facilitator	<i>Joyce Chang</i>	
	<u>From Global Best Science to Mitigation of Nitrous Oxide</u>	3:30—5:00 pm	S403b
	Facilitator	<i>Julian Sandino</i>	
3:50—4:05 pm	From Theory to Practice: Global Progress on N2O	<i>Amanda Lake</i>	
	<u>Refining Wastewater Effluent for Purification: Reuse-nutrient Removal-nexus II</u>	3:30—5:00 pm	S404a
	Assistant Facilitator	<i>Ryujiro Tsuchihashi</i>	
3:30—3:50 pm	Tuas WRP: A Resource Recovery Factory	<i>Colin Newbery</i>	
4:00—4:20 pm	Pilot-scale Validation of Tertiary MBR Design Concepts for Potable Reuse in Southern California	<i>Colin Fitzgerald</i>	

Jacobs Technical Sessions at WEFTEC 2023—Wednesday, 10/4

Technical Session		Session Time	Room Location
Presentation Time	Presentation Title		Jacobs Presenter Name
Wednesday, 10/4			
	<u><i>Intentional Integration of Social Equity into Climate Planning</i></u>	8:30 am — 10:00 am	S402a
	Assistant Facilitator		<i>Blaga Delic</i>
	<u><i>Intensifying and Optimizing Anaerobic Digestion</i></u>	8:30 am — 10:00 am	S503
9:30—9:50 am	Thermal and Microbial Sludge Hydrolysis Processes: Evaluating Their Role in Sustainable Water Resource Recovery Applications		<i>Maddy Fairley-Wax</i>
	<u><i>PdNA Whole Plant Considerations</i></u>	8:30 am — 10:00 am	S504a
	Moderator		<i>Colin Fitzgerald</i>
	<u><i>Re-direct Carbon for Better Use</i></u>	8:30 am — 10:00 am	S502
	Assistant Moderator		<i>Arifur Rahman</i>
	<u><i>Water Reuse: Challenges and Opportunities</i></u>	8:30 am — 10:00 am	S403b
	Assistant Moderator		<i>Aaron Mann</i>
	<u><i>BAP Tunnels and Interceptors</i></u>	10:30 am—12:00 pm	S504a
10:30—11:00 am	Validating Sediment Predictions In Major Collection Systems: Insights From The London Tideway Tunnels		<i>Joss Plant</i>
	<u><i>Microplastics Interaction with Pathogens and Other Microconstituents</i></u>	10:30 am—12:00 pm	S502
	Lead Facilitator		<i>Jenny Reina</i>
	<u><i>Pushing the Boundaries of Our Biological Models</i></u>	10:30 am—12:00 pm	S404a
	Assistant Facilitator		<i>Colin Fitzgerald</i>
	<u><i>Unlocking Hydrolysis and Internally Stored Carbon Utilization for Nitrogen</i></u>	10:30 am—12:00 pm	S503
	Lead Facilitator		<i>Colin Fitzgerald</i>

Jacobs Technical Sessions at WEFTEC 2023—Wednesday, 10/4 (continued)

Technical Session		Session Time	Room Location
Presentation Time	Presentation Title		Jacobs Presenter Name
Wednesday, 10/4			
	<u>Advancing Desalination and Treatment of Non-traditional Source Water</u>	1:30—3:00 pm	S503
	Assistant Facilitator		<i>Ryujiro Tsuchihashi</i>
	<u>Creating Resilience with Stormwater Projects</u>	1:30—3:00 pm	S502
2:00—2:30 pm	Designing for Climate Change: Flood Risk Mitigation Using Optimization (Alexandria, VA)		<i>Daniel Baldwin & Laurens Van der Tak</i>
	<u>Managing the Third Effluent Part II</u>	1:30—3:00 pm	S501d
1:30—1:50 pm	Potomac Interceptor Long-term Corrosion Prevention Program: DC Water Using Innovative Tools to Support Strategy Development		<i>Adrian Romero</i>
2:30—3:50 pm	Austin Water Integrated Approach to Odor Control: Sewer to Plant Considerations		<i>Adrian Romero</i>
	<u>Planning and Process Improvement Case Studies: Winning with Twinning</u>	1:30—3:00 pm	S505b
1:30—1:50 pm	Leveraging Big Data Platforms in Water and Wastewater to Accelerate Machine Learning Optimization at a Regional Scale		<i>Joshua Registe</i>
1:30—3:00 pm	Soft Sensing Influent Concentrations with Airflow Rates by Digital Twins: A Real Case Study from Oldham WwTW		<i>Cheng Yang</i>