
Innovations in Process Engineering Conference
New Tools, Technologies, and Techniques for Research, Design, and Operation

June 20-23, 2022
Miami, Florida, USA

**ABSTRACT, WORKSHOP, AND SESSION PROPOSAL SUBMITTAL DEADLINE:
NOVEMBER 2, 2021**

www.wef.org/ProcessEngineering

Now in its second year, the Innovations in Process Engineering Conference is designed to serve as a cutting-edge showcase for the introduction and discussion of innovations and new practices for water resource recovery facilities. The conference will focus on broad topical coverage in terms of treatment efficacy, efficiency, and enhancements as well as resource recovery and improved understanding and operation through monitoring tools and advanced data analytics. The target audience includes researchers and practitioners who are energized in leading the discussion and implementation of technical development in our industry. Concentrating heavily on research, development and innovation, the conference encourages any and all stages and scales of innovation from well-developed process concepts to bench-scale, and pilot-scale research and full-scale demonstrations.

The conference provides the opportunity to share and participate in discussions of innovations in the tools, technologies, and strategies used for the research, design, and operation of treatment plants. The content should expand the toolkit and thinking of researchers, design engineers, and operational staff and will include advancements in process monitoring, the development of emerging technology, the modeling and design of those processes, and relevant technical topics related to new and innovative treatment process operation and optimization.

This conference will be an opportunity to highlight and consider the future of water resource recovery facilities. All focuses and disciplines in the field are encouraged.

Examples of topics that will be considered include, but are not limited to:

Developments in design and operation of treatment processes including new strategies, tools, and technologies:

1. Nutrient removal and recovery
2. Balancing and optimizing carbon management
3. Enhancing secondary treatment, including densification, ballasted processes, and membranes
4. Sedimentation and separation processes
5. Contaminants of emerging concern and associated treatment means
6. Process aeration and mixing systems
7. Alternative disinfectants and improved disinfection control
8. Digestion – pretreatment, post-treatment, control, co-digestion
9. Digester gas treatment technologies
10. Optimizing thickening and dewatering processes
11. Advances in sidestream treatment
12. Technologies for potable and non-potable reuse
13. Energy saving/conservation technologies
14. Novel approaches for treatment and resource recovery

Developments in design and operating tools and monitoring:

15. Advances in process control systems and emerging sensor-based and data analytics-based controls
16. Advances in process, hydraulic, data, and CFD modeling and non-traditional ways of using traditional models
17. Understanding, monitoring, and selecting for beneficial microbial communities

Abstracts are being solicited for both posters and podium presentations. Abstracts should be no longer than two pages in length with an explicit word limit of 1500, not including references or graphics. Abstracts must be submitted via the online system, with reference bibliography, tables, and graphics uploaded separately. To submit an abstract, please visit www.wef.org/ProcessEngineering. **Abstracts must be received no later than 11:59 PM U.S. Eastern Time on November 2, 2021.**

This conference does not include content that is already well covered at WEFTEC and other topical specialty conferences. Examples of topics that should not be submitted to this conference include case studies of well-established technologies, management (biosolids, people/workforce, utility, assets/equipment, finance, construction), collection and conveyance systems, equipment evaluation, project delivery, master/facility planning, surface water quality-related topics, operator training issues, permitting/regulation, and aging infrastructure.

Abstracts will be evaluated and ranked for selection based on their total score using the criteria in the following table:

Abstract Evaluation Criteria				
Scoring Level	Novelty	Technical Content	Benefits & Significance	Quality
1	Nothing new	Just a concept	Of no interest to audience	Minimal text, limited discussion of project
2	Chance of small improvement	Well defined concept and clear objectives	Modest benefit to focused audience	Clear relevant text but no tables or figures
3	Modest incremental improvement	Well defined concept, clear objectives and methods	Modest benefit to broad audience	Clear text and either one table or figure
4	Very significant incremental improvement	Clear objectives and methods. Outcomes suggested but not fully described	High interest and benefit to focused audience	Clear text with figures and tables but presentation or logic could be improved
5	Potential breakthrough	Clear objectives, methods described, and (anticipated) conclusions outlined	Broad benefits to broad audience	Well written logical text with high quality figures and tables

Selected abstract authors will be notified in December and will be encouraged to submit a full manuscript to *Water Environment Research* in advance of the conference. Authors may also choose to submit their original or revised extended abstract prior to the conference to be included in the Mobile App and/or printed abstract booklet. In accordance with Federation policy, accepted authors must confirm participation and submit a speaker biography and may be required to do provide other information about their presentation. If materials are not provided by the designated deadlines, speakers may be replaced. Presenters are expected to register for the Conference and pay the appropriate registration fee. No travel or assistance funds are available for speakers.

Workshop and Session Proposals

The Conference Steering Committee is also soliciting for Workshop and Session Proposals. Guidelines for submitting a Workshop or Session Proposal can be found on the conference webpage at www.wef.org/ProcessEngineering. Proposals must also be received no later than 11:59 PM U.S. Eastern Time on November 2, 2021.

Questions? Please Contact:

Water Environment Federation

Education & Training – Innovations in Process Engineering 2022

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