95th Annual Water Environment Federation Technical Exhibition & Conference

WEFTEC 2022

CALL FOR ABSTRACTS

Ernest N. Morial Convention Center
New Orleans, LA | October 8 - 12, 2022

WEF and the WEFTEC Program Committee are seeking technical program content in the form of abstracts and topical session proposals for WEFTEC 2022. Our vision is to map relevant, high quality technical and market content to a variety of sessions. New for 2022! The Program Committee has shared what they consider to be the most pressing issues under each topic. Special consideration will be given to those whose submissions address these. Sessions will be designed to meet the diverse learning objectives of the water industry experts and enhance their experience at WEFTEC 2022.

WHAT ARE TECHNICAL SESSIONS?

Technical Sessions are 60-to-90-minute sessions consisting of a group of abstracts (presentations) that are related topically. If a submitted abstract is selected for a technical session, the author will be required to submit a full paper/ manuscript and select a presenter for the presentation time given to them. Presentation time lengths vary from 10 minutes to 20 minutes based on Program Committee decisions and session design.

SUBMISSION

For WEFTEC 2022, you have two options for becoming an author/speaker.

Session Proposal

A session proposal should consist of several presenters and facilitators, a complete agenda, and a cohesive theme or topic. The session's goal or objective must ensure knowledge exchange or development. While the session can involve multiple presentations, it should also incorporate some form of interaction with attendees. Speakers selected for your session proposal should be diverse, meaning they should not all represent the same utility or organization but should come from different backgrounds and experiences. This includes not having all clients from one consulting organization or manufacturer.

Abstract

Individual abstracts can be submitted to the Program Committee who will review and determine the best session for your presentation to fit in. Presentation lengths may vary from 10-20 minutes and may involve discussion depending on the session type. The committee may decide to do a speed session and could select your abstract. If you are selected for a speed session with a presentation length under 10 minutes, a full paper/manuscript will not be required.

Note: Agreeing to present a paper at WEFTEC is an obligation to participate in the event (including paying for all travel costs and registration fees). Accepted presenters will be expected to prepare a full-length paper for the proceedings and sign WEF's license agreement giving WEF permission to use the paper.

TOPICS & FOCUS AREAS

Both session proposals and individual abstracts, will be required to select one topic and one focus area that best relates to your submission. The italicized bullets under each topic represent the program committee's areas of interest.

TOPIC

Asset Management
- *AM Program Development*
- *Risk/Criticality/Condition Assessments*
- *Performance Reporting*
- *Asset Reliability*

Effective Utility Management
- *Workforce Issues (Retention, Hiring, Career Progression)*
- *Data Management*
- *Public/Stakeholder Engagement and Outreach*
- *Cyber Security*

Project Delivery
- *Alternative Project Delivery Methods*
- *Design Delivery Standards*

Rates, Finance, and Capital Planning
- *Rates and Affordability*
- *Financial Equity (with respect to access to water)*
- *CIP Planning and Prioritization*
- *Alternative Financing*

Resiliency and Security *(Including Emergency Operations and Safety)*
- *Environmental Resiliency (Sea Level Rise)*
- *Disaster Recovery & Emergency Operations*
- *Employee and Public Safety*
- *Sustainable Best Practices*

Collection Systems
- *Certification and Training of Collection Utility Operations Staff*
- *Private Property Challenges and Solutions*
- *Pressure Pipe Condition and Rehab*
- *Models versus Monitoring*

Wet Weather Issues
- *Wet Weather Treatment Process Technologies and Strategies*
- *Planning for Resiliency*
- *Chemically Enhanced Primary Treatment*
- *Impact of Wet Weather on Secondary Treatment*

Air Quality and Odors
- *Air Quality Monitoring*
- *Odor Management in Collection Systems*
- *Odor Management at WRRFs*
- *Odor and Corrosion Control Technologies*

Treatment: Preliminary and Primary (Does not include handling and disposal of grit, screenings, and solids- see Residuals and Biosolids)
- *Grit Removal and Screening*
- *Primary Filtration*
- *Carbon Diversion*
- *FOG Management*

Treatment: Secondary (Does not include Nutrients)
- *Aeration and Mixing Efficiency*
- *Preventing Bulking Sludge and Foaming Events*
- *Selective Wasting (i.e., hydrocyclones, surface wasting)*
- *Clarifier Modeling*

Treatment: Advanced (Does not include Nutrients)
- *Biofilm and Granular Sludge Systems*
- *Improved Modeling of Carbon Removal*
- *Pharmaceutical and Emerging Contaminant Removal*
- *Membrane Bioreactors*

Nutrients: Mainstream Nitrogen Removal (Not stormwater/watershed issues)

- *Simultaneous Nitrification Denitrification*
- *Shortcut Nitrogen Removal including Mainstream Partial Nitration/Anammox*
- *Partial Denitrification and Anammox*
- *Biofilm Technologies including MABR*

Nutrients: Mainstream Phosphorus Removal *(Not stormwater/watershed issues)*

- *Biological Phosphorus Removal*
- *Chemical Phosphorus Removal*
- *Fermentation to Aid Biological Phosphorus Removal*
- *Kinetic and Modeling Studies of Biological Phosphorus Removal*

Nutrients: Mainstream Nutrient Removal (Both N and P Removal- Not stormwater/watershed issues)

- *Case Studies for Full-scale Design and Alternative Assessment*
- *Cost Evaluation and Alternatives Assessment*
- *Microbial Ecology for Biological Nutrient Removal*
- *Kinetic and Modeling Studies for Biological Nutrient Removal*

Nutrients: Sidestream Treatment (Including urine/source separation)

- *Sidestream Treatment Technologies (e.g., Partial Nitration/Anammox, Post Aerobic Digestion, etc.)*
- *Phosphorus Recovery*
- *Struvite Control*
- *Kinetic and Modeling Studies of Sidestream Treatment Process*

Residuals and Biosolids (Not including Energy Recovery)

- *Innovation in Dewatering Technology*
- *Understanding Grit Characteristics and Improvements in Management*
- *Co-digestion of HSW with Wastewater Solids*
- *Fate of PFAS in Biosolids*

Energy Management and Optimization

- *Instrumentation to Improve Energy Capture and Utilization*
- *Improvements in Heat Energy Capture from Biosolids*
- *Understanding Heat and Energy Balances for Optimizing Energy Capture*
- *Energy Sustainability*

Energy Recovery

- *Thermal Processes*
- *Hydrogen Production from Biosolids*
- *Biogas Enhancement*
- *Innovation in Gas Clean-up Technology*

Water Reuse, Desalination, and Brine Recovery

- *Potable Reuse Planning and Implementation*
- *Brine Management and Treatment*
- *Reuse Treatment Advances and Monitoring*
- *Policy and Regulations relating to Water Reuse*

Disinfection and Public Health

- *Innovative Disinfection Technologies and Applications*
- *Wastewater Based Epidemiology and Pathogens*
- *Emerging Disinfectants*
- *Public Health Policy and Regulations*

Instrumentation, Control, and Automation

- *Sensor Maintenance and Quality Control*
- *Data Analytics, Machine Learning, and Digital Twins*
- *Process Control*
- *SCADA and DCS Systems*

Microconstituents, Contaminants of Emerging Concern, and Trace Organic Compounds

- *Pharmaceuticals and Personal Care Products*
- *Algal Toxins, Hormones, and Endocrine Disruptors*
- *Per-and Polyfluoroalkyl Active Substances (PFAS)*
- *Other Emerging Contaminants such as Microplastics and Nanomaterials*

Stormwater

- *Flash Flooding in Urban Areas*
- *Environmental and Social Justice in a Stormwater Setting*
- *Incorporating Climate Change Impacts in Stormwater Analytics/Design*
- *Remedies for GSI Design Issues*

Industrial Issues and Treatment Technologies

(industrial settings include Food & Beverage, Downstream Oil and Gas/Refining, Upstream Oil and Gas, Chemicals, Petrochemicals, Pharmaceuticals, Power, Mining and Forest Products.)

- *Achieving Sustainability Goals*
- *Industry-specific Challenges and Solutions*
- *Difficult-to-treat Contaminants in an Industrial setting*
- *Unique Technology Applications for the Industrial Market*

Small Communities, Decentralized Systems

- *Financing Alternatives*
- *International/National Case Studies*
- *Staff Training*

Diversity, Equity & Inclusion

- *Water Stress, Water Equity & Water Justice*
- *Multigenerational Workforce*
- *Success stories and failures with implementation of DE&I*

Future Issues

- *Water Energy Food Nexus*
- *Decarbonization of the Water Industry*
- *Extreme Climate Events – Planning for Unplanned Consequences on Water*
- *Coastal Issues*

Watershed Management

- *Integrated Planning*
- *Regional Watershed Management*
- *Watershed-based Permitting and TMDLs*
- *PFAS Studies with Ambient Data*

FOCUS AREA

- Research and Development
- Regulation
- Design and Technology
- Operations and Maintenance
- Management

PREPARATION & SUBMISSION

GENERAL INFORMATION

- There is no limit to the number of abstracts that may be submitted by an individual, company, organization, or institution.
- Each abstract should be submitted one time only. Duplicate abstracts will be discounted.
- Do **not** submit the same abstract or a very similar one to different topics.
- Membership in WEF is not a requirement for submission and/or presentation.
- All participants must register for WEFTEC 2022 and are responsible for their travel and lodging expenses and registration fees for the conference.
- Registration will open in June 2022.
- The official language of WEFTEC is English.
- Abstracts mentioning equipment should include the manufacturers of the equipment as authors.

ABSTRACT GUIDELINES & FORMATTING TIPS
FORMAT AND LENGTH
- Abstracts are limited in length to 1100 words. This is the equivalent of 4.5 pages, double-space, 11-point font Arial with 1-inch margins. The word count does not include graphics, tables, references, or sources.
- At a minimum, the abstract must be one full page or at least 250 words.
- You will be asked to input two learning objectives for the individual abstract and three for the session proposal. The learning objective should clearly what people can take away and learn from your presentation.
- There are individual fields for the presentation title, authors, references, keywords, and learning objective. Use these fields and do not put them in the body of your abstract.
- You must copy and paste the body of your abstract into the online system or re-type it. There is no option to upload a document.
- Do not attempt to copy and paste headers or footers into the system.
- Do not put your document into a PDF.
- Formatting of copied and pasted text will be retained. However, simple formatting (such as italics, bold, and underline) can be added using the online submission system. Instructions are provided online during submission.

IMAGES/GRAPHS
- Images, photos, tables need to be uploaded separately.
- We recommend you put any excel tables into a .jpg before uploading.
- It is recommended (not required) that images and tables be no more than 650 pixels wide and not more than 900 pixels high. Simple images/tables can be on the smaller side of the recommended pixels and the more complex it is; the image MAY need to be larger than the recommended size.
- Always check the preview tab to make sure your images are readable.

CONTENT
- Abstracts must clearly define the objectives, status, methodology, findings, and significance of the investigation or study.
- Submissions on hot topics, regulatory issues, and new water or wastewater technologies are especially welcome.

CRITERIA FOR SELECTION

All abstracts and session proposals will be judged with the following criteria. These criteria are the minimum criteria, and all abstracts meeting these will be considered for the program. The selection process is highly competitive, and submitters should take time to be sure all submissions meet or exceed the following criteria.

APPLICABILITY
The abstract/session proposal should present ideas, concepts, or lessons learned that are transferable and usable at other facilities and situations.

DEMONSTRATED RESULTS/CONCLUSIONS
The topic presented in the abstract/session proposal should be mature and proven, including lessons learned. Depending on the type of abstract, this could measure the extent that plans are developed, or stages/projects are completed.

CONSEQUENCES
The abstract/session proposal should address the consequences of the issue/project presented. The consequences, both intended and unintended, could include environmental, economic, and social impacts. Both positive and negative results are encouraged.

RELEVANCE
The topic presented in the abstract/session proposal should appeal to the WEFTEC audience, presenting breakthrough technologies, new concepts, and novel applications of concepts, original ideas, new twists, hot topics, or application of fundamental techniques to today's problems.

CONTENT, CLARITY, AND QUALITY
Authors should prepare clear, concise abstracts to follow the requirements. The quality and content of the abstract/session proposal are considered indicative of the final paper and presentation at WEFTEC 2022.

HOW TO SUBMIT

All WEFTEC 2022 individual abstracts and session proposals must be submitted online.
Abstract Submission Site: https://ww3.aievolution.com/wef2201/
If you encounter a problem with your submission, please email speakers@wef.org.

IMPORTANT DATES

DECEMBER 15, 2021

All abstract and session proposal submissions must be submitted by 11:59PM Eastern. After this time, the submission portal will close. Submitters will no longer be able to create or edit existing abstract submissions.

JUNE 2022

By June 1, 2022, the primary author of each abstract and session proposal submission will receive a notification letting them know if their submission has been accepted or rejected by the WEFTEC Program Committee.

JULY 2022

All authors whose abstracts have been selected for the program are required to complete a full paper/manuscript for the conference proceedings. Final acceptance for the program will be contingent on receipt of the paper/manuscript and a license agreement signed by all co-authors.