

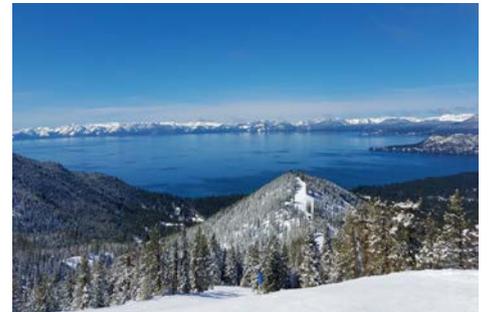
# The 17th IWA Leading Edge Conference on Water and Wastewater Technologies



# Call for papers

27 MARCH -2 APRIL 2022, RENO, NEVADA, USA

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Organised by:



University of Nevada, Reno

## INVITATION FROM THE CHAIRS OF THE PROGRAMME COMMITTEE



**Jonathan Clement**  
Nanostone Water Inc  
(The Netherlands)



**Ana Soares**  
Cranfield University  
(United Kingdom)

Given this event was delayed due to the global pandemic, the 17th year [Leading Edge Conference on Water and Wastewater Technologies](#) (LET 2022) will represent a time for re-connecting and networking. Critical water technology developments are emerging continuously and it's important to be aware of these.

The water industry has a key role to play towards achieving net-zero targets and mitigating climate change. We need to be bold, and think outside the box, working in multidisciplinary teams to ensure that new solutions are comprehensive and future-proof. Every year the committee attempts to focus on the issues that are globally and regionally receiving the most attention. Bringing innovations, novel technology developments, and leading-edge applications from across the industry is key to this conference.

Each session is developed to create a cohesive and interesting discussion. This is accomplished by inviting some of the most impactful water technology leaders in the industry. On behalf of the Programme Committee, we strongly encourage you to actively participate in this conference through the submission of your papers on innovative and sustainable technology approaches.

We hope to again attract exciting and novel contributions that have made the LET conferences such a high-level event in the past decade. The success of this conference will largely depend on your participation, so please join us in Reno in March 2022. We are confident we will have a stimulating and invigorating exchange on all these ideas and solutions you have developed. Looking forward to seeing you all in person as we are aiming for a 100% face-to-face conference.



## INVITATION FROM THE CHAIR OF THE ORGANIZING COMMITTEE



**Krishna Pagilla**  
University of Nevada  
(United States)

The [17th Leading Edge Conference on Water and Wastewater Technologies](#) (LET 2022) marks a new beginning after a prolonged pandemic that is impacting all of us in many ways. We are excited to host this conference as an in-person event. It is a great opportunity to meet colleagues face-to-face again, exchange ideas, and learn about the latest developments in water and wastewater technology and research innovations.

As the Chair of the Organizing Committee, it is my pleasure to invite you to the 17th IWA LET 2022, hosted in Reno-Sparks, Nevada, USA. The host, University of Nevada, Reno is nearly 150 years old, and is a Carnegie Tier I research university with extensive programs in water sciences and engineering. It is the epicentre of a knowledge driven regional economy. The twin cities, Reno and Sparks, with a combined population of approximately 400,000 are located in the scenic Eastern Sierra mountain region with mild weather and a wide variety of world-class outdoor recreation opportunities nearby.

These include the Lake Tahoe watershed, exceptional skiing, snowboarding, sailing, mountain biking, kayaking, rock climbing, and hiking trails such as the 165-mile Tahoe Rim Trail, Pacific Crest Trail, and the Truckee River from Lake Tahoe through downtown Reno and Sparks to Pyramid Lake. Major technology companies located in the region, including Tesla Gigafactory One, Google, Apple, and Amazon.

Water resources and sustainable water management are critical to the region's economy and environment. The attendees of LET2022 will be able to tour the state-of-the-art water treatment facility of Truckee Meadows Water Authority, which has extensive and unique surface reservoirs and aquifer storage and recovery operations. In addition, the Truckee Meadows Water Reclamation Facility is a very advanced facility producing reclaimed water for reuse and environmental discharge.

OneWater Nevada, a regional collaborative effort to develop potable reuse solutions for the region is likely to be of interest to the conference attendees. The organizing committee expects a large local attendance from California and other western states of the US, which are facing severe droughts and wild fires, and are in need of innovative water and wastewater treatment technologies. For the technology vendors and developers, LET 2022 offers a great platform to showcase their products to the US market and international audience. The organizing committee is looking forward to welcoming you.

Yours faithfully  
*Krishna Pagilla*

## PROGRAMME COMMITTEE

**Bruce Rittmann**, (Conference President) Arizona State University, United States

**Jonathan Clement**, (Co-Chair) Nanostone Water, The Netherlands

**Ana Soares**, (Co-Chair) Cranfield University, United Kingdom

**Mark van Loosdrecht**, Delft University of Technology, The Netherlands

**Gary Amy**, Clemson University, United States

**Chris Dermody**, Jacobs, United States

**Marc Deshusses**, Duke University, United States

**Ian Law**, IBN Solutions, Australia

**Megan Plumlee**, Orange County Water District United States

**Lydia Teel**, University of Nevada, United States

**Beverly Stinson**, AECOM, United States

**Stewart Sutherland**, Scottish Water, United Kingdom

**Shane Trussel**, TrusselTech, United States

**Jeff Yarne**, Yarne & Associates, United States

**Sunli Sinha**, Virginia tech, United States

## SPONSORSHIP OPPORTUNITIES

We partner with some of the water sector's leading companies and organizations and work together for a better water future. Our sponsors and partners benefit from a unique opportunity to connect with thought leaders from within and outside the water sector and to network with over 1000 delegates. If you are interested in sponsoring IWA LET2022 or having a stand in the Exhibition, please check our [sponsorship opportunities](#). To book, please contact:

Kizito Masinde Global Events & Awards Director,  
International Water Association  
Email: [kizito.masinde@iwahq.org](mailto:kizito.masinde@iwahq.org)

## ORGANIZING COMMITTEE

**Krishna Pagilla**, (Chair) University of Nevada, United States

**Laura Haak**, University of Nevada, United States

**David Hanigan**, University of Nevada, United States

**Angel Lacroix**, Truckee Meadows Water Authority, United States

**Nikita Lingenfelter**, Nevada Division of Environmental Protection, United States

**Casey Mentzer**, Truckee Meadows Water Reclamation Facility, United States

**Vijay Sundaram**, AECOM, United States, United States

**Rick Warner**, Warner and Associates. United States

## KEY DATES

**15 September 2021**: Deadline for outline paper (max. 2 A4 pages) submission

**1 December 2021**: Notification of acceptance of outline papers

**December 2021**: Opening registration

**December 2021**: Super early bird (registration for authors)

**20 March 2022**: Submission of full papers (only oral presenters)

**24 March 2022**: Submission of digital poster files (to be included in the online pre-print proceedings)

## CONFERENCE VENUE

The 17th Leading Edge Conference on Water and Wastewater Technologies will be hosted at:  
**Nuggets Casino Resort Convention Centre**  
1100 Nugget Ave, Sparks, NV 89431, United States



## WE INVITE YOU TO SUBMIT A PAPER

Submitting a paper for the **LET 2022** gives you an opportunity to present your work to a global audience and the opportunity of publication in a leading international peer-reviewed journal.

The conference technical programme will consist of platform presentations, poster presentations, workshops and panel discussions.

All outline papers selected for presentation will be included in the online preprint – which will be accessible to all conference delegates.

Full papers from a selection of presentations will also be considered for publication in one of the IWA Publishing journals. Selected posters will be on display for the period of the conference.

Outline papers are now invited on the respective topics and should be submitted via our **conference website**.

Outline papers will be accepted for oral or poster presentations and shall be limited to a maximum of two A4 pages (including figures and tables). The outline paper has to contain adequate information to allow for a sound review. For guidelines on formatting outline papers and more information about **LET 2022**, please visit [www.iwa-let.org](http://www.iwa-let.org)

Further information regarding registration for **LET 2022** and paper presentations, including a templates for outline papers, is available at [www.iwa-let.org](http://www.iwa-let.org)

The submission deadline for outline papers is **15 September 2021**. Submissions will be peer-reviewed and authors will be notified of the decision on their paper following the final meeting of the Programme Committee on 1 December 2021.

## CONDITION OF PRESENTING

By submitting a paper you are consenting to be the corresponding author and the first point of contact for all communication regarding your submission. You will be responsible for communicating with any other authors of the submission.

Once the outline paper is selected for either platform presentation or poster presentation, at least one of the authors must register for the conference and present the paper at the conference.

All authors who register for the conference may have their article considered for publication in an IWA journal (Water Science and Technology). Please note that acceptance of a paper for conference presentation does not guarantee subsequent acceptance for journal publication.

## PROCEDURE FOR SUBMISSION

The following sequence of actions is the only method for submitting material for an oral or poster presentation at **LET 2022**.

You are asked to submit an outline paper, whether you intend to give an oral or poster presentation.

**The maximum length of your outline paper is to be 2 pages (A4) of text, plus 2 pages (A4) of figures, tables and references.**

Click [HERE](#) to see the outline paper template.

All submissions must include:

- A **title** that clearly expresses the subject of the paper
- All **authors'** names and affiliations
- Contact information (name, designation, email address, postal address, and phone number) of **corresponding author**
- Type of presentation (oral or poster presentation)
- **Theme** of your presentation
- Short **abstract** summarising, which should not exceed more than 10 lines
- **No more than two A4 pages** of an outline paper that must contain adequate information to allow a sound review: an introduction, concise details of methods and results, and conclusions

To be accepted for **LET 2022** conference, submissions must report work that is **novel, correct, well described**, and be of **interest** to conference participants. Submissions must contain original data and meet international ethical standards. Selection criteria include high technical quality, relevance to the conference themes, and significant informative content. **Outline papers that are deemed commercial in nature will not be accepted.**



## LET 2022 THEMES

### Adapting Water Supply Systems for Climate Resilience



Many utilities are now implementing this on a very intensive scale. As climate change effects become more pronounced, water quantity and quality are straining the ability of utilities to meet supply demands and quality criteria. Utilities across the globe are working with complex programs to interpret climate data and their effect on water systems. This session will present information on how these systems work and provide benefits.

### Alternative Technologies for Indirect and Direct Potable Water Reuse



The standard technology for water recycling for potable purposes is being challenged. RO is often seen as the panacea, but there may be combinations of other treatments that would be sufficient to achieve acceptable and safe water quality. This session will explore new treatment scenarios for IPR (indirect potable reuse) and DPR (direct potable reuse) systems and the technologies.

### Emerging Technologies for Digital Water



The Digital Water session will focus on evolving digital water technologies enabling water treatment and distribution, customer engagement, long-range planning, as well as a focus on the information management and data governance capabilities needed to pull it all together.

### Pre-treatment Techniques for Desalination



Research and technology development for improving desalination over the past decade has focussed on energy reduction. In recent years, large desalination plants have faced serious problems and even failures because of inadequate pre-treatment. This session will focus on recent developments and innovations with pre-treatment solutions for desalination.

### Emerging Technologies that Enable High Effluent Quality and Resource Recovery



The session focuses on novel concepts and processes that promote high effluent quality and resource recovery. Nutrient removal optimization continues to be an important challenge and much progress is being made for both organic and inorganic resource recovery. This session will also discuss the advance in novel technologies such as anammox, granular sludge, membrane aerated biofilms, algae systems, ion exchange, novel adsorbents, etc.

### Emerging Contaminants: Microplastics, Pharmaceuticals, Personal Care Products (PPP) and Antibiotic Resistance



With the increased public concern related to pollution by emissions of microconstituents in effluents, water utilities have to evaluate the impact of these emissions on end users of water. This session will address modifications/conversions in wastewater reclamation plants and efficient technologies for the removal of these compounds.

### Wastewater Based Epidemiology



This session focuses on recent advances in wastewater based epidemiology. Predictive intelligence on the detection and quantification of chemical or biological agents excreted by humans, which can be found in wastewater, are being used to gain information about general public health as well as an early warning tool, with the recent COVID-19 pandemic management being an example. Informations highlighting the application of wastewater based epidemiology at sewershed scale and in hotspots, and the benefits and challenges are welcome.

### Treatment of Complex and High Strength Wastewater



This session focuses on complex and high strength wastewaters that require specialized treatment technologies. The water industry is having to provide innovative technologies to treat streams such as industrial effluents, sludge liquors, black water and yellow water in centralised and decentralised facilities. Innovations and their applications will be considered for this session.