The 18th IWA Leading Edge Conference on Water and Wastewater Technologies





Organised by:







INVITATION FROM THE CHAIRS OF THE PROGRAMME COMMITTEE



Jonathan Clement Ramboll, Singapore



Ana Soares Cranfield University, United Kingdom

The official theme for the 18th Leading Edge Conference on Water and Wastewater Technologies (LET2023) is achieving sustainability through water technology. This is an exciting topic for what will be the 20th anniversary of the LET series – a significant achievement that we will recognize with a special celebration.

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 over the past two decades. The success of this conference will largely depend on your participation, so please join us in Daegu in 2023. We are confident we will have a stimulating and invigorating exchange on all these ideas and solutions you have developed. We look forward to welcoming you soon in South Korea this spring!

INVITATION FROM THE CHAIR OF THE ORGANISING COMMITTEE



Seungkwan (SK) Hong Korea University, South Korea

We are extremely pleased that Korea has been selected as the host location for the 18th Leading Edge Conference on Water and Wastewater Technologies (LET 2023). Korea is a hub of innovation and technology, making it an ideal setting to host the LET 2023 conference. This event provides a unique opportunity to meet colleagues face-to-face, exchange ideas, and learn about the latest technological developments and innovations in the areas of drinking water and wastewater management.

On behalf of the Organising Committee, we welcome your active participation to make this an unforgettable and stimulating event. I strongly encourage you to submit content for the conference and join us in Daegu.





CORE PROGRAMME COMMITTEE

Jonathan Clement, (Co-Chair) Ramboll Water, Singapore Ana Soares, (Co-Chair) Cranfield University, United Kingdom

Mark van Loosdrecht, Delft University of Technology, The Netherlands

Jörg Drewes, Technical University of Munich, Germany SK Hong, Korea University, South Korea

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 hundreds of delegates. If you are interested in sponsoring IWA LET2023 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

KEY DATES

31 November: Deadline for plenary lecture proposal **15 December 2022:** Deadline for outline paper (max. 2 A4 pages) submission

31 January 2023: Notification of acceptance for authors **31 January 2023:** Advance technical programme announced

1 March 2023: Workshop proposal deadline

CONFERENCE LOCATION

The 18th Leading Edge Conference on Water and Wastewater Technologies will be held in the buzzing Korean city of Daegu, North Gyeongsang Province, which is located in the southern part of the country. South Korea is an ideal setting to host this edition focusing on achieving sustainability through water technology. The event will be held in the fantastic facilities of Daegu's **EXCO** venue.



LET 2023 HOST COUNTRY PARTNERS

The main host country organiser of LET 2023 18th Leading Edge Conference on Water and Wastewater Technologies is the IWA Korea National Committee, with the Korea Water Partnership providing the administrative office on behalf of IWA KNC. The IWA KNC brings together the following leading organisations:

Korean Society of Environmental Engineering Korean Society on Water Environment K-Water Korea Water & Wastewater Works Association Korea Environment Corporation Korean Society of Water and Wastewater















WE INVITE YOU TO SUBMIT A PAPER

Submitting a paper for the **LET 2023** 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 **LET2023**, please visit www.iwa-let.org

Further information regarding registration for **LET 2023** and paper presentations, including a templates for outline papers, is available at **www.iwa-let.org**

The submission deadline for outline papers is 15 December 2022. 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 31 January 2023.

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

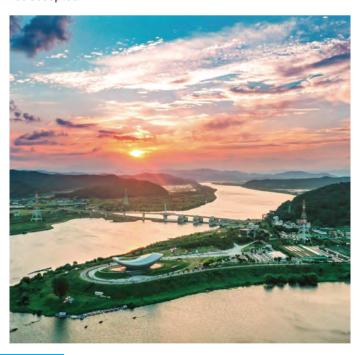
The following sequence of actions is the only method for submitting material for an oral or poster presentation at LET 2023.

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 <u>HERE</u> 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 2023 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 2023 TRACKS

Water Treatment Track



Industrial solutions

Manufacturing process are water demanding and the water quality requirements for advanced facilities is very demanding. At the same time industry is faced with economic challenges and tightening regulations with regard to water use and waste generation. This has led to the rapid development and adoption of novel and advanced technologies.

Sustainability

For decades the water industry focused on technologies that can effectively remove contaminants and pathogens. While there are many treatment technologies that can achieve any desired water quality, there is now a shift toward achieving treatment objectives in a far more sustainable way. This means specifically toward carbon emissions, energy reductions, higher water recovery, resource recovery and reduction in chemical use.

Innovations in Desalination

With conventional inland sources being used to their maximum extent, seawater is becoming a major target source. Treatment of seawater is very challenging involving desalination (which is very energy intensive) and the pretreatment step which is problematic due to the high algae content of seawater. One element that will be covered is mineral recovery. Technologies are continuously being developed to overcome these problems.

Emerging innovative water technologies

New scientific developments are leading to new water technologies that can achieve multiple objectives in a single step. These include new materials, novel membrane systems, catalytic membrane systems and ion exchange for removing organics.

Wastewater Treatment Track



Monitoring and reduction of greenhouse gas emissions

The anthropogenic release of greenhouse gases (GHGs) has been demonstrated to be a major contributor to climate change, and like other industries, the water sector must reduce GHG emissions. This session will provide a better understanding on the quantification of GHG in wastewater related processes as well as strategies for reduction, mitigation, transformation and abatement towards achieving Net-Zero targets.

Energy positive wastewater technologies

Increasing uncertainty on the energy market including supply, resilience, and costs are a big concern for the water sector, together with decarbonisation. Innovations on renewable energy and heat production in wastewater treatment plants are moving at a fast pace with significant developments in the water and sludge and gas lines. This session focuses on energy generation, recovery and balances from heat, electricity, hydrogen, ammonia, sludge, using innovative technologies in wastewater treatment plants.

Emerging innovative wastewater technologies

Current pressures faced by the water industry have highlighted how innovation and the next generation of technologies can solve real problems whilst, meeting tight regulations but bringing added economic benefits by comparison to state of the art. The session addresses big questions on the innovative technology options for mainstream and sidestream, nutrient management, resource recovery all the way to persistent pollutants.

Sustainable green technologies

The water industry is leading the way making sustainability pledges, to become greener, taking in consideration the local economy, society and the environment backdrop. New technological solutions are delivering reduced greenhouse emissions, benefits to the local communities and the environment. The session provides and overview of solutions for large and small WWTP and communities, including aspects on footprint, emissions, resource recovery, green walls, etc.