# IWA World Water Congress & Exhibition 2018











Organised by



Partners:

Bureau of Waterworks Tokyo Metropolitan Government



Japan Society on Water Environment







# Why submit your abstract to the IWA WWC&E 2018?

- Create new, inspiring solutions to the world's urban and basin water challenges;
- Validate and disseminate your work by presenting it during a world class Congress;
- Learn and grow professionally through privileged access to the best content, cross-sector knowledge and diverse experiences;
- Expand your network and meet new professional partners by engaging with leading water experts.

# Tokyo, Japan - A Water Hub

Tokyo is a mega city where tradition lives side by side with high tech like nowhere else on earth. Ancient temples and driverless bullet trains peacefully coexist within a cityscape that comes straight out of a sci-fi movie. Tokyo is one of the world's truly great cities and prides itself on innovation and reinvention. As it faces a new future of climate change and water scarcity, it is looking to its past relationship with the Sumida River for inspiration to reinvent itself once again, this time as a water city.

The city's historical relationship with water has shaped its development, and now sustainability and water-focused liveability is a top priority for the city authorities and water utilities. This shift in thinking forms the backdrop for hosting the IWA World Water Congress. There has never been a better time for water professionals to visit.

# Contribute to a better water future with your work

We are looking for contributions under the session themes (below) to present global best practice, advances in fundamental science, innovative research, policy developments, and solutions to challenges faced by water professionals worldwide. Presenting is a valuable opportunity to meet members of the community of world-leading water professionals.

### **Utilities of the Future**

#### WATER UTILITY MANAGEMENT

The management of water utilities is a key part of the fabric of our cities and countries. Effective collaboration with their many stakeholders at different scales is an important feature of innovative and engaged utilities. How can water utilities optimise operation and management to be efficient in their use of human and physical resources, as well as being innovative and adaptive to short and long-term changes and future challenges?

- Utility efficiency and benchmarking (including leakage and water loss);
- Water & wastewater plant performances & optimization approaches (chemicals, water losses, energy, water quality...)
- Asset optimization with rehabilitation technologies (pipe, plant, ...)
- Management of extreme events (earthquake, floods, bushfires, major accidents and attacks etc).
- Outbreaks management (feedbacks from crisis management)
- Utilities striving towards energy carbon neutral urban water services;
- Application of ICT for utility management
- Integration of decentralised solutions in a centralised system
- Interactions of utilities with city / local and state government agencies;
- Economic evaluations and financial incentives to support community / city-wide benefits and outcomes;
- Public-private sector cooperation;
- Customer management and engagement

#### **WASTEWATER**

Wastewater management and resourcerecovery face many challenges and opportunities. This includes municipal and industrial wastewater management, nonpotable reuse, recovery of energy, nutrients and chemicals. What is the role of various wastewater treatment technologies, from individual-scale to large WWTPs, in delivering the sustainable, circular water management of the future?

- Water management in: Agroindustries/Food industries
- Water management in: Chemicals & Pharmaceuticals
- Water management in: Energy production
- Industry onsite recycling & zero discharge
- Water reclamation for non-potable reuse
- Resource recovery (of nutrients and chemicals)
- Energy efficiency and recovery in wastewater management
- Activated sludge processes
- Nutrient removal
- Anaerobic processes
- Biosolids management & reuse
- Biofilm and granular sludge processes
- Microbial ecology
- Emerging contaminants (micropollutants; antibiotic resistance, etc.)
- Membrane bioreactors
- Membrane applications in wastewater management
- Physico-chemical treatment
- Nanotechnology / nanomaterial applications
- Large Wastewater treatment plants design, operation, economics
- Decentralized wastewater treatment
- Modelling treatment processes and systems
- Instrumentation, control & automation in treatment processes

#### **DRINKING WATER & POTABLE REUSE**

The growth of emerging contaminants, such as nanoparticles, pharmaceuticals and antibiotic resistance, threaten the global goal of safe and high quality drinking water. Potential disasters such as bacterial outbreaks, storm impacts and security events, as well as concerns around the distribution systems (disinfection by-products, lead and opportunistic pathogens), require that innovations move from the science and engineering research into practice. How do we make potable water reuse part of the solution as more cities move to planned reuse to meet the growing community demands and provide water security for megacities?

- On-line monitoring (data management, validation)
- Monitoring (sensors, indicators, new techniques)
- Drinking water treatment (disinfection, ozone, activated carbon)
- Membrane processes for drinking water treatment
- Drinking water treatment Desalination
- Taste and odor
- Drinking water low cost solutions (water storage, household water treatment)
- Advanced technologies for Potable
- Distribution systems (premise plumbing, biofilms, metals)
- Disinfection by-products
- Opportunistic pathogens
- Risk assessment including toxicology
- Outbreaks
- Disaster management
- Emergency water supply
- Security (cybernetic, terrorisms, severe events)
- Communication and collaboration for disaster mitigation
- Emerging contaminants (nanoparticles, pharmaceuticals and personal care products)
- Antibiotic resistance
- Social and policy aspects of drinking water (economics, standards, communication with stakeholders)
- Water safety plans

### Cities of the Future

#### **URBAN WATER SYSTEMS**

Solutions for optimizing water and wastewater systems at the urban scale include strategic planning, operation, design and maintenance of drinking water, wastewater services and drainage infrastructure in urban environments. How can urban water systems deliver resilient, productive and sustainable solutions to achieve water-wise and liveable cities?

- Modelling for decision support systems for water & city planning
- Modelling of climate change, climate variation, flooding, and droughts
- Modelling of water management and urban planning
- Smart solutions for liveable cities (data, metering, networks)
- Sensors and instrumentation for urban water systems
- Indicators and metrics for resilience and blue / green infrastructure
- Water Wise Cities, indicators and implementation
- Transition to sustainable cities of the future
- Resilient and decentralised systems
- Urban drainage & sewerage
- Water-sensitive urban design
- Rainwater harvesting
- Water-energy interactions in the urban water cycle
- Infrastructure rehabilitation
- Processes in sewers and drinking systems

# COMMUNITIES, INTEGRATED PLANNING & THE ENABLING ENVIRONMENT

Achieving water-wise cities of the future requires the involvement of many key stakeholders and professionals with different backgrounds. This track will explore how local (city) governments, utilities, planners, professional groups, the community, and private-sector partners can best work together to maximize their effectiveness and achieve better overall outcomes for their cities?

- Water efficiency and consumer behaviour change
- Pricing and incentives
- Community and stakeholder engagement
- Policy and governance
- Regulation (economics, environmental, service implications)
- Decision making methods and tools
- Water industry capacity building, education and training
- Multi-agency responses
- Community resilience and recovery (indicators, targets, incentives)
- Critical asset identification and protection
- Integrated Planning across the water cycle, community, urban planning and other sectors
- System thinking and planning
- Water management and urban planning
- Joining up water and energy efficiency
- Smart metering and point of use water measurement/ feedback
- Smart water management (artificial intelligence, big data, internet of things, etc)
- Constraints and issues with megacities
- Policy and regulatory responses in megacities
- Community and stakeholder engagement in megacities

# **Basins of the Future**

# LARGE SCALE WATER MANAGEMENT

For cities and utilities to be able to deliver long term sustainable, resilient and affordable services for future generations, it is important they are able to plan and manage the interrelationships and interdependences across catchments, basins and also within national and international contexts. How can water management at basin scale ensure the sustainability of services which cities and utilities rely upon from the wider natural system?

- Resilience Planning
- Groundwater management
- Integrated Water Resources Management
- Catchment management
- Transboundary water management
- Water stress, droughts & floods
- IWRM for Basin water management
- Sustainable Development and GDP: Challenge or Dilemma
- Water policy, governance and institutional arrangements
- Water Quality Restoration
- Environmental impact assessment based planning
- Ecosystem and environmental flows
- Rehabilitation of natural assets
- Diffuse pollution
- River restoration
- Multi sector planning
- Access and allocations of water
- Water footprint & virtual water
- Water trading
- Improve irrigation and energy efficiencies
- Sufficiency Economy Principle for small farm holding households
- Future trend of agricultural model in Developing countries



# How are papers selected?

Your outline submission and the final full paper (if selected for platform presentations) must be in plain English and clearly define the objectives, status, methodology, findings and significance of the investigation or study. Your submitted outline paper will be peer reviewed by international experts. Programme selections are based on the scores and comments of those reviewers. We expect 1200–1500 submissions, and presenter decisions will be announced in April 2018.

We expect to have some 350 oral presentations plus many more poster presentations at the congress. To maximise the exposure of your work in either format, we will have electronic poster presentations included in the relevant conference sessions, in addition to the permanent display of the posters throughout the congress. There will also be dedicated poster presentation sessions and short 'pitch' sessions where selected posters can be presented to the audience in short oral presentations. This will ensure that there is the best possibility for interactive and valuable exchanges between presenters and the audience in whatever format your presentation will be.

## What to submit?

Your initial submission must be in the form of an outline paper: two A4 pages of text (approximately 1,000 words) plus up to two additional pages of tables/figures. This must clearly and persuasively summarise your proposed presentation. This must be uploaded to our online submission system before 1 October 2017.

Detailed guidance and templates are available at http://worldwatercongress.org/. If you prefer to present this work as a poster, please note this when you submit your proposal. If your submission is accepted for a platform presentation, you will also have to submit a full paper of between six and eight A4 pages, which can be considered for publication in an IWA journal (see details below).

You may submit as many outline papers as you want. However, no individual can present more than two platform papers/ poster - any further papers must be presented by one of the coauthors.

# How to improve your chances of selection?

Three fundamental questions determine whether a paper will be accepted onto the congress programme: Is the work novel? Is it accurately described? Is it well presented and attractive to a broad audience?

# TO IMPROVE YOUR CHANCE OF SUCCESS, CONSIDER THE FOLLOWING CRITERIA.

- Ensure that your paper fits the thematic tracks and that it's relevant for experts and non-experts.
- Submit original content. Describe breakthrough technology, new concepts, novel applications of established concepts, or improvements to existing theories (with new supporting data).
- Ensure that the work is well developed. If you can show concrete results that are well supported by data, your paper is more likely to be accepted.
- Clearly show how significant your work is. Your research must be relevant for your country, region or for other researchers and/or professionals working in your field.
- Prepare your outline with care, organise your material well, write clearly in plain English, prepare your graphics professionally, and make sure your information is accurate, up to date, and referenced.
- Commercial content won't be accepted for the scientific technical programme as platform presentations or posters.
   However, this type of material is welcomed at the trade exhibition or could potentially be presented in a business forum.

# Will papers be published?

Congress delegates will receive a full set of electronic proceedings with the final programme, but a formal proceedings book will not be published. However, full papers accepted for the congress will also be reviewed for publication in one of the IWA Publishing journals, including: Water Research, Water Science and Technology: Water Supply or Water, Practice and Technology. The final decision on publication will be taken by the editors of the journal. If you do not wish your paper to be considered for publication in a journal, please make this clear when submitting your full paper.

# What do I need to pay?

Every presenter (platform, poster, workshop and panel) is required to register as a paying delegate and attend the congress. If you're presenting, you are eligible for discounted registration fees. Presenters are responsible for their own travel and accommodation expenses. Presenters who do not register before 1 July 2018 will be replaced.

You do not need to be a member of IWA to present, but members receive larger discounts on registration fees and receive other membership benefits. More info about membership here. To receive regular updates about the event and see the benefits online join our mailing list at the Congress website.

# **Key Dates**

#### 24 JULY 2017

Online submission opens for outline papers (for platform and poster presentations).

#### **1 OCTOBER 2017**

Final deadline for submission of outline papers (for platform and poster presentations).

#### 1 APRIL 2018

Presenters notified of acceptance/rejection.

#### 1 JULY 2018

Deadline for accepted presenters to supply full papers, register and payment to attend the congress.

Further details are available on the congress website **www.worldwatercongress.org** 

If you have any question please contact us through wwce2018programme@iwahq.org

# **Programme Committee**

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