World Water Congress & Exhibition 2018

the international water association

Shaping our Water Future

Congress Programme & Exhibition Catalogue

16 - 21 SEPTEMBER, 2018
TOKYO, JAPAN
www.worldwatercongress.org

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In 1931, we made history with the first installation of domestically produced pressure rapid filtration equipment for municipal water systems in Japan. Since then, we have been supporting people's lives and the environment as a pioneer in the design, construction, maintenance and operation of infrastructure facilities for water and the environment.

We are contributing to the society through water, the source of all life.
Our company name "Swing" is a creative combination of sui(水 or water) and ing.
Building a better future with various solutions for sustainable water and the environment...
this is our steady goal and mission.

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SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

Content

Welcome to Tokyo

It is our great pleasure to welcome you with "OMOTENASHI", a Japan-style distinctive hospitality, to the IWA World Water Congress & Exhibition taking place in Tokyo, from September 16-21, 2018.

We realise that there are several important water challenges such as achieving Sustainable Development Goals (SDGs) and the implementation of water-wise city principles. For this purpose, we need to deepen our scientific knowledge and develop new innovative technology for a sustainable and resilient water society considering global warming prevention and a secured, sound, water cycle.

Japan has proactively and continuously shared its experiences and know-how in the water sector with other countries. We will do our best to provide a wonderful opportunity for looking at the real challenges of mega-cities, a showcasing innovative water technology, and offering business opportunities for strengthening our partnerships and expanding network of water professionals.

We experienced the Great East Japan Earthquake and Tsunami in 2011. We plan to organize the Forum on Disaster Counter-measures and Risk Management based on our lessons and experiences in the water sector. The forum will provide cues for developing better disaster management to reduce similar risks with best practice all over the world.

Tokyo represents a vital crossroads where over 400 years of history and tradition meet innovation. The Congress and Exhibition takes place at the Tokyo International Exhibition Centre, which is located on the expansive Daiba waterfront near the central Tokyo area. We sincerely look forward to seeing many attendants from across the world.

The IWA, and the World Water Congress, are ready to address the water challenges we collectively face. We come together in Tokyo, Japan, to innovate and shape a better water future for all. We hope that you will enjoy and benefit from joining us on this journey.

Professor Hiroaki Furumai
Chair of Host Country Committee

Welcome to Tokyo!
We are very excited to welcome the IWA World Water Congress & Exhibition at last.

It is truly a pleasure and an honour to welcome so many people from all over the world to our city, Tokyo, and have the IWA World Water Congress & Exhibition, one of the world's largest international conferences, held here.

Currently, the world faces a range of water problems, including more frequent natural disasters brought on by climate change and water shortages, and water quality deterioration due to rapid urbanization.

I hope that the active discussions and exchange of opinions at this conference will facilitate the sharing of the latest knowledge and technologies, and that the outcomes of these discussions will greatly contribute to resolving the world's water problems. Tokyo, as the host city, will also proactively promote the technologies and know-how it has cultivated to date.

This year, Tokyo celebrates the 150th anniversary of the city being renamed from Edo to Tokyo. Over the span of the last 150 years, Tokyo has overcome many difficulties and achieved amazing growth in a variety of areas such as the economy, culture, and public safety.

Tokyo is a leading global city with a well-developed social infrastructure, including its waterworks and sewerage systems and transportation network, a high concentration of the functions of the nation's capital, and a population of over 13 million.

It is also a city that boasts traditions passed down through generations, including washoku, or Japanese cuisine, which has even been placed on UNESCO's Intangible Cultural Heritage list; arts and culture, including traditional crafts and fireworks; historic buildings such as shrines and temples; and Japanese gardens.

I hope that all of the conference participants will take this opportunity to really experience Tokyo—a city with endless appeal, where tradition and innovation coexist side by side.

With the Rugby World Cup 2019 and the Olympic and Paralympic Games Tokyo 2020 just ahead, please enjoy our city as it continues to further evolve.

Finally, please accept my best wishes for a productive conference and an enjoyable stay in Tokyo.

Yuriko Koike
Governor of Tokyo

Welcome to the IWA World Water Congress and Exhibition 2018

For many of us, the IWA World Water Congress is one of the highlights not to miss every two years. Meeting colleagues, friends, and peers, gathering with the leading experts in the field is the opportunity we all use to leverage solutions for one of the biggest challenges we face in our world: water.

Today, billions of people lack safe water and wastewater services. Pollution continues to heavily affect ecosystems and water sources, and funding for provision of safe water services is inadequate. In addition, governance and delivery systems are weak and fragmented. But not only are water and sanitation a human right, these services are also at core of the environment, the economic development, and our societies.

In a world that faces increasing water stress and is impacted by global change, by population growth, by climate change, and by pollution, it is of the highest importance to allocate water and wastewater services under the premises of the ever-increasing demands to our diverse uses and needs. All these demands, all these responsibilities, present an all-time challenge for the water sector. We must work together to manage our water wisely, today and tomorrow.

This year, several reports have raised international awareness and activated existing and new political processes. In January, the World Economic Forum Global Risks Report 2018 assessed the likelihood and impact of 30 global risks over a 10-year horizon, and identified water as one of the key risks, a risk of high likelihood and high impact almost everywhere in the world. And two months ago, the High Level Political Forum (HLPF), the United Nations' central platform for follow-up and review of the 2030 Agenda for Sustainable Development focused its review and monitoring on the dedicated water goal, the SDG6. Having water at the heart of sustainable development is critical for all social and economic development, and the environment. Here, the outcome of this HLPF review is that the world is not on track to reach the Water and Sanitation Goal by 2030.

The IWA membership delivers solutions for the complex water problems we are facing and will be confronted with. Spread across countries and disciplines, IWA members represent the diverse and transdisciplinary force that is required to tackle this monumental task. It requires leading-edge scientific research and technological developments to be combined with the best water management practices. As a sector we must embrace groundbreaking technologies and innovation, and pioneering science. With a focus on integrated water management, we bridge the gaps between sectors and raise awareness at decision making and political levels to encourage fast adoption of solutions and changing mindsets.

Ours is an industry of people and, as an industry, we face the twin challenges of ensuring human resources available to deliver the massive growth in water and wastewater services to meet the SDGs; and that water professionals around the world have the right skills and knowledge to manage the sector of the future. It is a critical priority for us to invest in driving more professionals to enter the water and related sectors, and to provide accessible and affordable professional development opportunities for them.

The IWA World Water Congress and Exhibition 2018 will bring together over 6,000 of the world's leading water professionals. It is a unique opportunity for connecting and networking with water sector leaders, and to share knowledge on the latest trends.

Tokyo, our host city, is one of the world's great metropolitan areas, and offers many insights for successful water management. I wish you a fruitful and enjoyable week at the 2018 IWA Congress and Exhibition and I look forward to meeting you all in Japan's capital.

Diane d'Arras
President, International Water Association

Hitachi's Vision for the Future of Water

HITACHI
Inspire the Next

Water has a decisive influence on your life.
To achieve a society that sustains water,
Hitachi aims to achieve a smart future and SDGs.

What makes the world sustainable?

Values to provide	Water quality that meets needs: Safe Anyone, anywhere, and any time: Secure Higher efficiency, optimization, and strengthening: Stable
Hitachi's strength	Operational Technology (OT) with IT and products that support water infrastructure. Lumada, the IoT platform that connects them. The formation of a circulating society.

Hitachi, Ltd.

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Overview

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Thematic Tracks

Shaping the future of water management

Track 1

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?

Track 2

Wastewater

Wastewater management and resource-recovery face many challenges and opportunities. This includes municipal and industrial wastewater management, non-potable 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?

Track 3

Drinking Water & Potable Reuse

The growth of emerging contaminants, such as nanoparticles, pharmaceuticals and antibiotic resistance, threatens 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 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?

Track 4

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 and provide water security for megacities?

Track 5

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?

Track 6

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?

Plan Your Week

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Sunday 16 September	Monday 17 September	Tuesday 18 September	Wednesday 19 September	Thursday 20 September
WORKSHOP 13:00 - 14:30 High Quality Water Supply and Sewerage Systems in Japan - Innovative Technologies and Collaborative Practices	**KEYNOTE PLENARY** 09:00 - 09:45			
	BREAK 09:45 - 10:30			
	SESSION 1 10:30 - 12:00			
HOW TO MAKE THE MOST OF THE CONGRESS 14:30 - 16:00	**LUNCH** 12:00 - 13:30			
	SESSION 2 13:30 - 15:00			
OPENING CEREMONY 16:00 - 18:00	**BREAK** 15:00 - 15:45			
TOASTING CEREMONY 18:00 - 18:15	**SESSION 3** 15:45 - 17:15			**CLOSING CEREMONY** 15:15 - 16:45
EXHIBITION OPENING 18:40	**KEYNOTE PLENARY** 17:30 - 18:15			
WELCOME RECEPTION 18:30 - 20:00	**PROJECT INNOVATION AWARDS (PIA) DINNER**	**CULTURAL EVENT** Evening		**GALA DINNER** Evening

Monday 17 September

SCHEDULE	RECEPTION HALL A	RECEPTION HALL B	ROOM 101	ROOM 102	ROOM 601	ROOM 604	ROOM 605	ROOM 606	ROOM 607
09:00 - 09:45	**KEYNOTE PLENARY** Yuriko Koike *Governor of Tokyo and* Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan*								
BREAK 09:45 - 10:30 **SESSION 1** 10:30 - 12:00	**TECHNICAL** Customers and Tariffs	**TECHNICAL** Emerging Contaminants: Treatment	**WORKSHOP** Post SDGs: Future Vision Call	**TECHNICAL** Energy Efficiency & Recovery in Wastewater Management	**TECHNICAL** Instrumentation, Control & Automation in Treatment Processes	**TECHNICAL** Water Management in: Agroindustries/Food Industries	**WORKSHOP** Process Synthesis, Design and Control of Next Generation Resource Recovery & Wastewater Treatment Plants (WWTPs)	**WORKSHOP** Assessing Log Reduction Values for Drinking Water Treatment Technologies	**WORKSHOP** Climate Change Adaptation Through Application of Low Impact Development Strategies And Green Infrastructures
LUNCH 12:00 - 13:30 **SESSION 2** 13:30 - 15:00	**TECHNICAL** Water Efficiency	**TECHNICAL** Community Based Planning	**WORKSHOP** Handling Emerging Subtances in the Urban Watercycle	**TECHNICAL** Sulfur Conversions	**WORKSHOP** Principles of Online Data validation - An introduction	**TECHNICAL** Industry Onsite Recycling & Zero Discharge	**WORKSHOP** Towards A Next Generation Of Water Systems And Services For The Circular Economy	**TECHNICAL** Water Infrastructure Asset Management & Maintenance Solutions	**TECHNICAL** Algae, Taste, Odor & Toxin Control
BREAK 15:00 - 15:45 **SESSION 3** 15:45 - 17:15	**TECHNICAL** Urban Drainage	**TECHNICAL** Modelling for Resilience	**WORKSHOP** Micropollutants II - Removal in WWTP	**WORKSHOP** Principles of Data Management - How Collected Data Can Be Useful & Reliable	**WORKSHOP** What Water Technologists Should Know about Advanced Process Modelling that will Accelerate their Design and Scale-up Efforts	**TECHNICAL** Water Reclamation for Non-potable Reuse	**WORKSHOP** From Innovation Partnerships to Citizen Involvement In The Modern Water Sector	**WORKSHOP** International Approaches to Water Efficiency Labelling	**TECHNICAL** Risk Assessment & Toxicology
17:30 - 18:15	**KEYNOTE PLENARY** Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*								

ROOM 608	ROOM 609	ROOM 610	ROOM ICR	ROOM 701 / 702	ROOM 703	ROOM 801	ROOM 802	BUSINESS FORUM 1	BUSINESS FORUM 2
KEYNOTE PLENARY Yuriko Koike *Governor of Tokyo and* Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan*									
TECHNICAL Utilities Striving Towards Energy / Carbon Neutral Urban Water Services	**WORKSHOP** Appropriate Tariff Setting and Improvement of Customer Perception Towards Sustainable Water Supply	**WORKSHOP** Intermittent Water Supply (IWS) - A Paradigm Shift Is Imperative	**FORUM** Disaster Counter-measures and Risk Management towards Resilient Cities	**TECHNICAL** Benchmarking of Water Utilities	**TECHNICAL** Application of ICT for Utility Management	**SKILL DEVELOPMENT** Solving Complex Water Problems - A Toolkit (part 1)	**TRAINING 07:30 - 12:00** Delivering Regulatory Excellence in Water Energy Nexus *Registration required*	**09:45 – 10:30** METAWATER **10:30 – 11:15** Taisei Kiko **11:15 – 12:00** Swing Corporation	**09:45 – 10:30** Japan Pavilion **10:30 – 11:15** Veolia
TECHNICAL Integration of Decentralised Solutions & Private Sector Strategies in Centralised Systems	**WORKSHOP** Nature Based Solutions: Engineering Approaches to Integrating Green and Grey Infrastructure From Catchment to Consumer	**TECHNICAL** Blue-Green Infrastructure	**FORUM** Disaster Counter-measures and Risk Management towards Resilient Cities	**TECHNICAL** Plant & Process Performances: How Can We Compromise Chemical Consumptions & Water Quality	**TECHNICAL** Non Revenue Water Management	**SKILL DEVELOPMENT** Solving Complex Water Problems - A Toolkit (part 2)	**TRAINING 13:00 - 16:30** Delivering Regulatory Excellence in Water Energy Nexus *Registration required*	**12:15 – 13:00** Cosmo Koki **13:30 – 14:15** Kubota Corporation **14:15 – 15:00** Hitachi	**12:00 – 13:30** Denmark Pavilion **13:30 – 15:30** Emerging Technologies Programme
TECHNICAL Economic Evaluations & Financial Incentives to Support Community / City Benefits & Outcomes	**WORKSHOP** Nature Based Solutions: Financial and Regulatory Incentives for Green Infrastructure in Water Utilities	**WORKSHOP** Best Practice for Social Media in the Water Sector	**FORUM** Disaster Counter-measures and Risk Management towards Resilient Cities	**TECHNICAL** Chemical Drinking Water Treatment – Optimisation	**TECHNICAL** Leakage Detection & Solutions	**SKILL DEVELOPMENT** Publish in Style, a How To for Authors		**15:45 – 17:15** Japan Pavilion	**15:45 – 16:30** Meidensha Corporation **16:30 - 17:15** Africa Pavilion
KEYNOTE PLENARY Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*									
PROJECT INNOVATION AWARDS (PIA) DINNER									

Tuesday 18 September

SCHEDULE	RECEPTION HALL A	RECEPTION HALL B	ROOM 101	ROOM 102	ROOM 601	ROOM 604	ROOM 605	ROOM 606	ROOM 607
09:00 - 09:45	**KEYNOTE PLENARY** Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*								
BREAK 09:45 - 10:30 **SESSION 1** 10:30 - 12:00	**TECHNICAL** Monitoring & System Control	**TECHNICAL** Enabling Technology	**FORUM** 5th International Water Regulators Forum	**TECHNICAL** Emerging Contaminants & Microplastics	**TECHNICAL** Biosolids Management & Reuse	**TECHNICAL** Sewage Pollution & Treatment	**WORKSHOP** Water-Wise Cities I - Multi-purpose Water Services, Leveraging Multiple Benefits Across Sectors	**WORKSHOP** People Management I - Building the Water/Wastewater Workforce Needed to Protect the Public and the Environment	**TECHNICAL** Microbiology of Water Distribution Systems & Biofilms
LUNCH 12:00 - 13:30 **SESSION 2** 13:30 - 15:00	**WORKSHOP** Global Water Pathogen Project and WHO Workshop for the Action Plan on Antimicrobial Resistance and Water Environment I	**TECHNICAL** Diffuse Pollution	**FORUM** 5th International Water Regulators Forum	**WORKSHOP** Microplastics in Wastewater - Why Do We Care?	**WORKSHOP** Sustainable Use of Water by Industry	**TECHNICAL** Sensors & Smart Solutions	**WORKSHOP** Water-Wise Cities II: Implementing Water-Wise Cities around the World: Lessons Learned	**WORKSHOP** People Management II - A Vision for Cultural Change through Diversity	**TECHNICAL** Novel Technologies
BREAK 15:00 - 15:45 **SESSION 3** 15:45 - 17:15	**WORKSHOP** Global Water Pathogen Project and WHO Workshop for the Action Plan on Antimicrobial Resistance and Water Environment II	**FORUM** 5th International Water Regulators Forum	**WORKSHOP** Subsurface Water Storage: Catalyzer of Water Reuse Worldwide	**WORKSHOP** Effects of Microplastics in Freshwater and Soil Ecosystems	**WORKSHOP** Water Reuse in the Food-processing Industry	**TECHNICAL** Modelling for Decision Support	**WORKSHOP** Water-Wise Cities III - Water for Smart Liveable Cities	**WORKSHOP** Development & Advancements in Non-sewered Sanitation and Faecal Sludge Management	**TECHNICAL** Activated Carbon
17:30 - 18:15	**KEYNOTE PLENARY** Shinichiro Ohgaki *President Japan Water Research Center (JWRC), Japan*								

ROOM 608	ROOM 609	ROOM 610	ROOM ICR	ROOM 701 / 702	ROOM 703	ROOM 801	ROOM 802	BUSINESS FORUM 1	BUSINESS FORUM 2
KEYNOTE PLENARY Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*									
TECHNICAL Resource Recovery I - Inorganic	**TECHNICAL** Activated Sludge Processes	**WORKSHOP** Climate Resilient Water Safety & Security Planning	**LECTURE** Phosphorus Recovery & Reuse from Wastewater	**TECHNICAL** Pipe Failures & Corrosion	**TECHNICAL** Pumps & Energy	**SKILL DEVELOPMENT** Water Communication in the Age of Fake News	**TRAINING 08:30 - 12:00** Performance Assessment & Improvement in Urban Water Services: The IWA Approach *Registration required*	**09:45 – 10:30** METAWATER **10:30 – 11:15** Kubota Corporation **11:15 – 12:00** Kurimoto **12:15 – 13:00** Swing Corporation **13:30 – 14:15** Cosmo Koki **14:15 – 15:00** Meidensha Corporation **15:45 – 17:15** Japan Pavilion	**09:45 – 10:30** Japan Pavilion **10:30 – 11:15** Xylem Inc **11:15 – 12:00** JFE Engineering Corp. **12:00 – 13:30** Denmark Pavilion **13:30 – 15:30** Emerging Technologies Programme **15:45 – 16:30** Netherlands Pavilion **16:30 - 17:15** Nukote Coating Systems
TECHNICAL Resource Recovery II - Organic	**TECHNICAL** Nutrient Removal I (Anammox)	**WORKSHOP** Groundwater for the Future	**WORKSHOP** Toward the Achievement of SDGs Relating to Sanitation and Wastewater Management (SDG 6.2, 6.3)	**TECHNICAL** Corrosion Control & Pipe Life Extension	**TECHNICAL** Distribution Network & Energy Savings	**TRAINING** Climate Smart Utilities: Tools for Resilience *Registration required*	**TRAINING 13:00 - 15:30** Performance Assessment & Improvement in Urban Water Services: The IWA Approach *Registration required*		
TECHNICAL Physio-chemical Treatment - Electrochemistry	**TECHNICAL** Biofilm & Granular Sludge Processes	**TECHNICAL** Groundwater Management	**WORKSHOP** Toward the Achievement of SDGs Relating to Sanitation and Wastewater Management (SDG 6.2, 6.3)	**WORKSHOP** Implementing Infrastructure Asset Management: Good Practice & Challenges	**TECHNICAL** Chemical Optimisation	**TRAINING** Climate Smart Utilities: Tools for Resilience *Registration required*	**TRAINING 16:00 - 17:00** Performance Assessment & Improvement in Urban Water Services: The IWA Approach *Registration required*		
KEYNOTE PLENARY Shinichiro Ohgaki *President Japan Water Research Center (JWRC), Japan*									
CULTURAL EVENING									

Wednesday 19 September

SCHEDULE	RECEPTION HALL A	RECEPTION HALL B	ROOM 101	ROOM 102	ROOM 601	ROOM 604	ROOM 605	ROOM 606	ROOM 607
09:00 - 09:45	**KEYNOTE PLENARY** Sudhir Murthy *CEO, NEWhub, USA and* Mark van Loosdrecht *Chair professor in Environmental Biotechnology, Delft University of Technology, Netherlands*								
BREAK 09:45 - 10:30 **SESSION 1** 10:30 - 12:00	**TECHNICAL** Wastewater Treatment Pathogens & Antibiotic Resistance	**TECHNICAL** Water Quality & Restoration	**WORKSHOP** Innovators Workshop	**WORKSHOP** Water Reuse Opportunities & Challenges to Augment Non-potable & Potable Water Supplies	**WORKSHOP** Climate Change Impacts On Source Water Quality And Urban Water Supply Systems	**WORKSHOP** Urban Water Security: A Global Network, Local Solutions	**WORKSHOP** Communications In A Crisis Situation	**TECHNICAL** Cities in Transition	**TECHNICAL** Drinking Water Low Cost Solutions
LUNCH 12:00 - 13:30 **SESSION 2** 13:30 - 15:00	**TECHNICAL** Water Safety Plans & Risk Assessment	**TECHNICAL** Environmental Impacts on Discharge Effluent	**FORUM** Science to Practice	**WORKSHOP** Experience and Challenges of Non-potable Reuse in East Asian Megacities	**TECHNICAL** Water Management in: Energy Production	**TECHNICAL** Social Issues for Water Access	**WORKSHOP** Building Pathways for City-to-City Collaboration on Climate Resiliency	**WORKSHOP** Utilities in Transition to High Performance and Low Carbon	**TECHNICAL** Membrane Processes for Drinking Water Treatment I
BREAK 15:00 - 15:45 **SESSION 3** 15:45 - 17:15	**TECHNICAL** Disasters & Response	**TECHNICAL** Water Resources & Water Quality	**FORUM** Science to Practice	**WORKSHOP** Water Reuse for Emerging Economies: Lessons Learned from Distributed Water Reuse in Japan	**TECHNICAL** Microbial Ecology	**WORKSHOP** Policy Responses To Contaminants of Emerging Concerns In Freshwater - Taking Advantage Of New Scientific Developments	**WORKSHOP** Resilience in the Round		**TECHNICAL** Membrane Processes for Drinking Water Treatment II
17:30 - 18:15	**KEYNOTE PLENARY** Rebekah Eggers *Global Water Leader, WW IoT, Energy, Environment, & Utilities Business, IBM, United States*								

ROOM 608	ROOM 609	ROOM 610	ROOM ICR	ROOM 701 / 702	ROOM 703	ROOM 801	ROOM 802	BUSINESS FORUM 1	BUSINESS FORUM 2
KEYNOTE PLENARY Sudhir Murthy *CEO, NEWhub, USA and* Mark van Loosdrecht *Chair professor in Environmental Biotechnology, Delft University of Technology, Netherlands*									
TECHNICAL Modelling Treatment Processes	**TECHNICAL** Anaerobic Processes I	**WORKSHOP** Sustainable Development Goals: Beyond Benchmarking and Business As Usual	**LECTURE** Integrating Nature-Based Solutions for Water in Urban Water Infrastructure	**TECHNICAL** DWTP Rehabilitation	**TECHNICAL** Water Management in: Chemicals & Pharmaceuticals	**SKILL DEVELOPMENT** Policy Charrette: Challenging Young Leaders to Invent Future Water Policy	**TRAINING 08:30 - 12:00** Non Revenue Water Assessment and Management in Low and Middle Income Countries *Registration required*	**09:45 – 10:30** METAWATER	**09:45 – 10:30** Kubota Corporation
								10:30 – 11:15 Japan Pavilion	**10:30 – 11:15** Phoslock Water Solutions
								11:15 – 12:00 Hitachi Ltd.	**11:15 – 12:00** Swing Corporation
TECHNICAL Resource Recovery III (Nutrients)	**TECHNICAL** Anaerobic Processes II	**WORKSHOP** The Value of Water Information: Overcoming the Global Data Drought	**BUSINESS FORUM** Japan Business Forum Water Management in Megacities I	**TECHNICAL** WWTP Rehabilitation	**TECHNICAL** Preparedness for Extreme Events	**SKILL DEVELOPMENT** Policy Charrette: Challenging Young Leaders to Invent Future Water Policy	**TRAINING 13:00 - 16:00** Non Revenue Water Assessment and Management in Low and Middle Income Countries *Registration required*	**12:15 – 13:00** Japan Pavilion	**12:00 – 13:00** Denmark Pavilion
								13:30 – 14:15 Cambi Group	**13:00 – 15:00** Emerging Technologies Programme
TECHNICAL Resource Recovery IV (Nutrients & Sulfur)	**TECHNICAL** Nutrient Removal II	**TECHNICAL** Water Policy, Governance & Institutional Arrangements Including SDGs	**BUSINESS FORUM** Japan Business Forum Water Management in Megacities II	**TECHNICAL** Asset Management using ICT Strategies & Informing Public Policy	**TECHNICAL** Preparedness for Disasters	**SKILL DEVELOPMENT** Water Leaders Career Panel		**14:15 – 15:00** Japan Pavilion	
								15:45 – 16:30 Belgium Pavilion	**15:00 – 16:30** Canada Pavilion
								16:30 - 17:15 Xylem Inc	**16:30 - 17:15** Africa Pavilion
KEYNOTE PLENARY Rebekah Eggers *Global Water Leader, WW IoT, Energy, Environment, & Utilities Business, IBM, United States*									

Thursday 20 September

SCHEDULE	RECEPTION HALL A	RECEPTION HALL B	ROOM 101	ROOM 102	ROOM 601	ROOM 604	ROOM 605	ROOM 606	ROOM 607
09:00 - 09:45	**KEYNOTE PLENARY** Lars Therkildsen *CEO, HOFOR, Denmark*								
BREAK 09:45 - 10:30	**TECHNICAL** Disinfection By-Products	**TECHNICAL** Membrane Bioreactors	**FORUM** Emerging Water Leaders	**WORKSHOP** Digitalisation of Water - Trends & Opportunities	**TECHNICAL** Physico-chemical Treatment - Nanomaterials	**TECHNICAL** Integrated Water Resource Planning	**FORUM** Basin-Connected Cities Forum I - Urban Perspectives	**TECHNICAL** Resilience	**WORKSHOP** Taste and Odor Compounds and Algal Toxins in Water: Management Strategies in An Era of Extreme Climate and Urban Growth I
SESSION 1 10:30 - 12:00									
LUNCH 12:00 - 13:30									
SESSION 2 13:30 - 15:00	**TECHNICAL** Emerging Contaminants	**TECHNICAL** Membrane Application Wastewater Management	**FORUM** Emerging Water Leaders	**WORKSHOP** Digital Water Hot Topics: Cybersecurity, Connected Workforce & Business 4.0	**TECHNICAL** Nanotechnology / Nanomaterial Application		**FORUM** Basin-Connected Cities Forum II - Tools for Action	**TECHNICAL** Water Stress: Droughts & Floods	**WORKSHOP** Taste and Odor Compounds and Algal Toxins in Water: Management Strategies in An Era of Extreme Climate and Urban Growth II
BREAK 15:00 - 15:15									
15:15 - 16:45	**CLOSING CEREMONY** Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.								
	GALA DINNER								

ROOM 608	ROOM 609	ROOM 610	ROOM ICR	ROOM 701 / 702	ROOM 703	ROOM 801	ROOM 802	BUSINESS FORUM 1	BUSINESS FORUM 2
KEYNOTE PLENARY Lars Therkildsen *CEO, HOFOR, Denmark*									
TECHNICAL WWTP & Energy Optimisation I	**TECHNICAL** Emerging Contaminants & Micro Pollutants - General Aspects	**WORKSHOP** Reuse, Recover, Recycle - Accelerating Resource Recovery from Water – Part I and II	**LECTURE** Recent Trends in Potable Water Reuse	**WORKSHOP** BioCluster Workshop: Real-time Analysis of Microbial Communities - How Close Are We?	**TECHNICAL** Earthquake Experience	**SKILL DEVELOPMENT** Open Access & Innovations in Publishing	**TRAINING 08:30 - 12:00** Infrastructure Asset Management in Light of ISO 5500x Standards IAM	**09:45 – 10:30** METAWATER	**09:45 – 10:30** Belgium Pavilion
								10:30 – 11:15 Blue Foot Membranes	**10:30 – 11:15** Yokogawa Electric Corp.
								11:15 – 12:00 Hitachi Zosen	**11:15 – 12:00** Japan Pavilion
TECHNICAL WWTP & Energy Optimisation II	**WORKSHOP** Efficient Management of Water Supply by Introducing Public-Private Partnership	**WORKSHOP** Reuse, Recover, Recycle - Accelerating Resource Recovery from Water - Part III	**WORKSHOP** Supporting Policy Development – How to Land Policy Decision in Water & the Environment	**WORKSHOP** BioCluster Workshop: Real-time Analysis of Microbial Communities - How Close Are We?	**TECHNICAL** Outbreak & Emergency Response		**TRAINING 13:30 - 15:00** Infrastructure Asset Management in Light of ISO 5500x Standards IAM	**12:15 – 13:00** Taisei Kiko	
								13:30 – 14:15 Japan Pavilion	**13:30 – 14:15** Systea SpA
									14:15 – 15:00 Japan Pavilion
CLOSING CEREMONY Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.									
GALA DINNER									

Information

Practical & Useful

Useful Information

ACCOMMODATION QUERIES
For questions about accommodation, you can go to the registration desk.

ATM
ATM (Automated Teller Machine) for Mizuho Bank, Tokyo Star Bank, Seven Bank, Japan Post Bank are located in the Entrance Hall 2nd floor.

Major credit cards such as VISA, Master Card, AMERICAN EXPRESS and many others are applicable to withdraw cash in the local currency at either machine.

CATERING AND REFRESHMENTS
Morning coffee, lunch and afternoon coffee is served in the exhibition area in West Hall 1. You can find a lunch voucher per day in your registration envelope.

EXTRA TICKETS
At the registration desk you can book extra tickets for social events, if available.

MEDICAL ASSISTANCE
Tokyo Big Sight do not stock medical supplies. A first aid room is available and designed to allow persons feeling ill to rest temporarily. For medical assistance please go to the registration desk.

SIGHTSEEING TOURS
The Tokyo Convention & Visitors Bureau will be onsite to assist with tours.

TAXI
From center of Tokyo
Metropolitan Expressway (Route No.11 Daiba). Approx. 5 minutes from Daiba Exit
From Yokohama/Haneda
Metropolitan Expressway (Wangan Route). Approx. 5 minutes from Rinkai Fukutoshin Exit
From Chiba/Kasai
Metropolitan Expressway (Wangan Route). Approx. 2 minutes from Ariake Exit

TRAIN
Rinkai Line, approximately 7 minutes' walk from Kokusai-Tenjijo Station **http://www.twr.co.jp/en/tabid/237/Default.aspx**

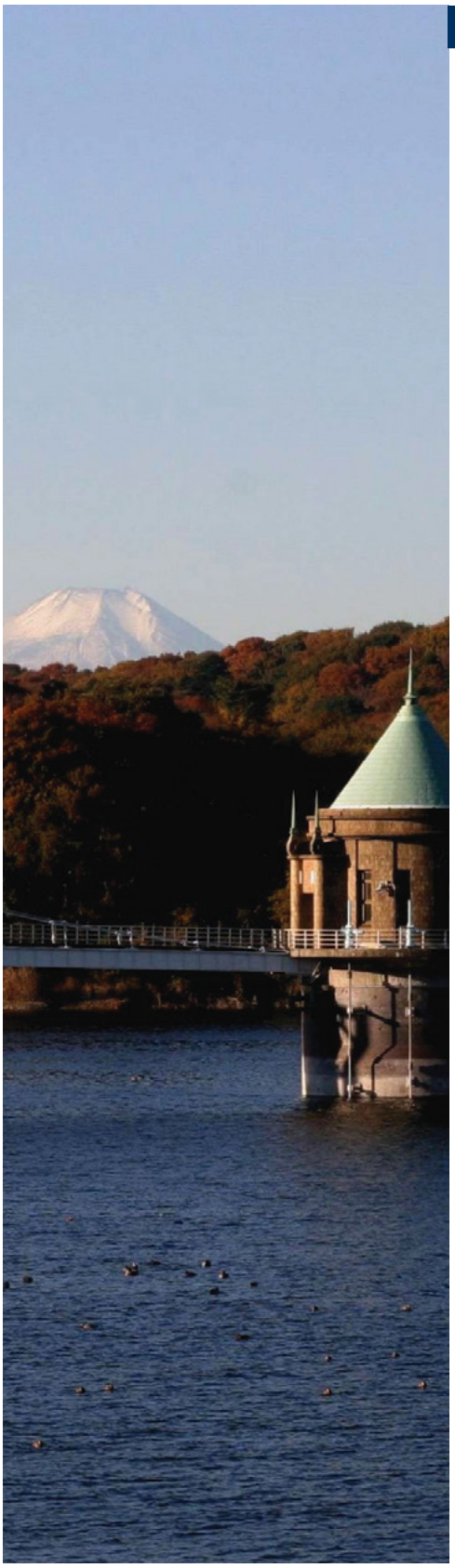
Yurikamome, approximately 3 minutes walk from Kokusai-Tenjijo Station **http://www.yurikamome.tokyo/**

REGISTRATION DESK
The registration desk will be open from:
Saturday 15.09 - 14:30 until 17:00
Sunday 16.09 - 08:00 until 18:00
Monday 17.09 - 08:00 until 18:00
Tuesday 18.09 - 08:00 until 18:00
Wednesday 19.09 - 08:00 until 18:00
Thursday 20.09 - 08:00 until 15:00

DISCLAIMER
The information contained in this programme guide is believed to be correct at time of publication. The organisers reserve the right to alter or remove from the programme as circumstances dictate. The organisers take no responsibility for any errors, omissions or changes. The organisers assume no responsibility for opinions or facts expressed by contributors to the programme.

Any late changes to the programme will be made available on the congress mobile app.

PHOTOGRAPHY DISCLAIMER
The congress organisers have arranged for professional photography onsite throughout the congress. The images may be used for post-congress reports, case studies, marketing collateral and supplied to industry media if requested. If you do not wish for your photo to be taken, please inform a staff member at the Registration Desk.



Practical information

CONGRESS MOBILE APP

Want the IWA World Water Congress & Exhibition at your fingertips? Get the official mobile app. A one-stop-shop for the entire Congress, the app offers a comprehensive guide to every workshop, technical session, presentation, event and exhibitor. Search for and connect with other delegates using the in-built networking tool; navigate your way around using the interactive floor plan; and share your thoughts and insights using the social media widgets.

Congress mobile app

Pre-print proceedings

IWA MOBILE APP – IWA-CONNECT

Want to stay in touch with the IWA network after the event? Connect to the global platform for water professionals. Access experts from across sectors & disciplines; Learn & share world-class best practices and find career development opportunities.

IWA connect

SOCIAL MEDIA

Planning to use social media while at the conference?

Join the conversation:

#WorldWaterCongress
www.facebook.com/internationwaterassociation
www.linkedin.com/company/international-water-association

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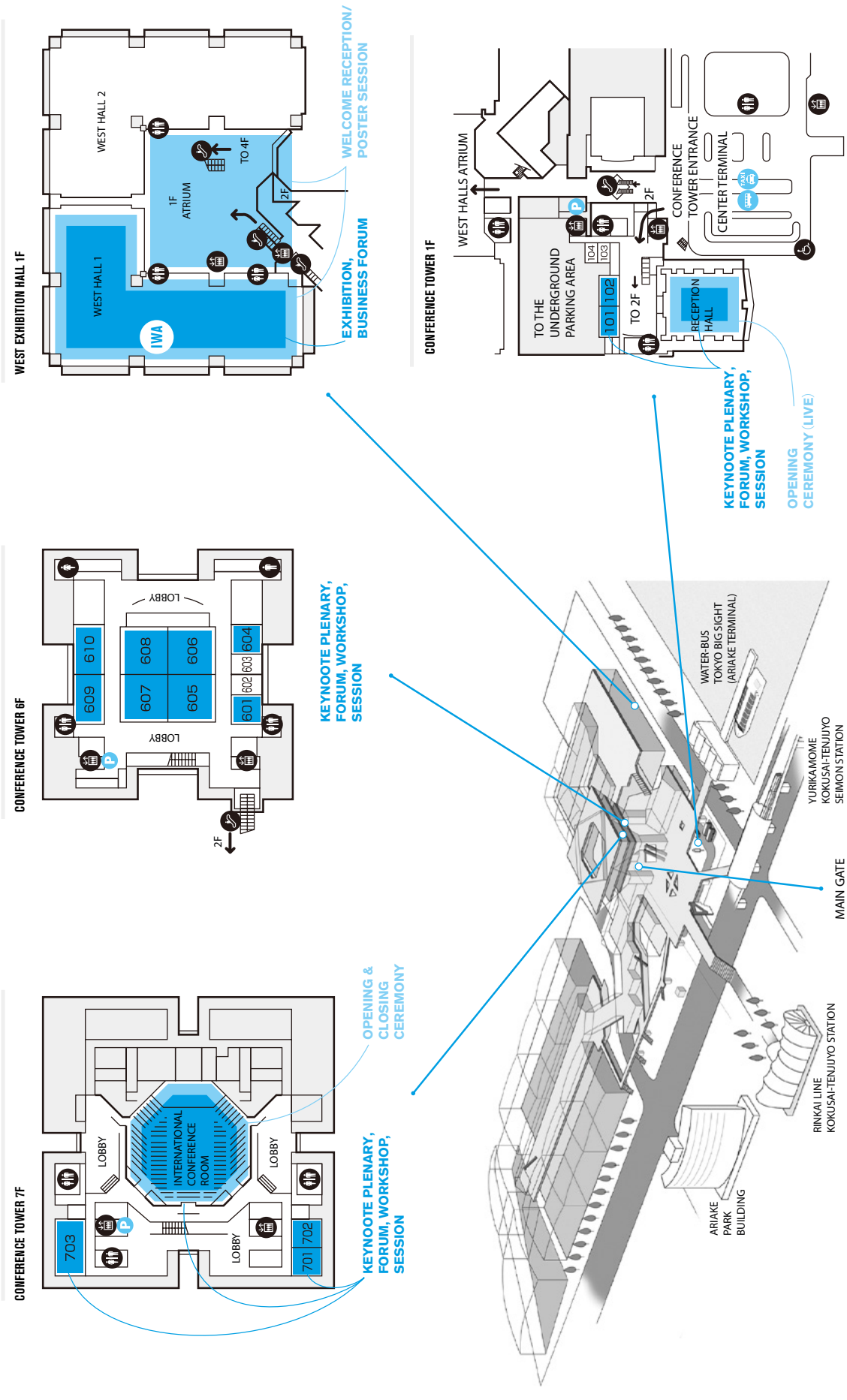
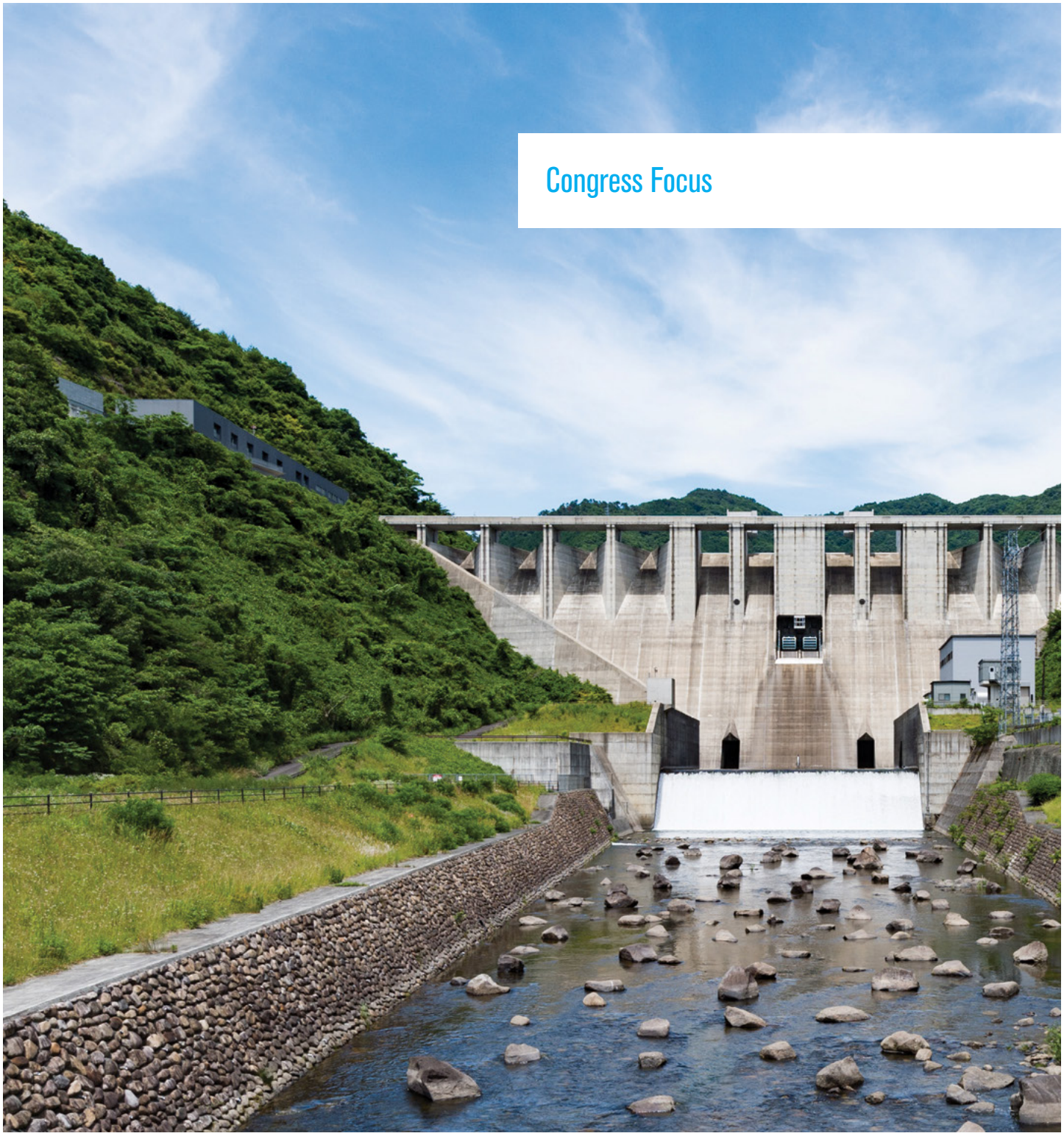
Floor Plan

Congress: Conference Tower / Exhibition: West Hall 1



Congress Focus



Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Inspiring Change

the international water association

Become an agent of change!

As an IWA member you can contribute towards a better water future. Join IWA and get access to a network of thought leaders, exclusive content and professional development.

Come meet us at the IWA Pavilion and discover a world of opportunities.

Special 20% discount on individual memberships available until 31 October with the code: **WWCETOK2018**.

stands 115 and 74

iwa-connect.org

Science, Practice and Policy for Sustainability and Resilience

From 16 to 21 September 2018, the International Water Association gathers in Tokyo, Japan. Attracting water professionals from over one hundred countries, the IWA World Water Congress & Exhibitiontt provides a unique opportunity to learn about the latest trends in leading practices, innovative technologies and pioneering science. It also connects you with the right people and the right solutions, and fosters new collaborations and partnerships.

We at IWA are happy to announce that the IWA World Water Congress & Exhibition 2018 presents the collective and state of the art knowledge and know-how through leading keynote speakers, presentations, poster sessions, workshops, open discussions, technology showcases, dialogues on emerging issues and leadership forums.

The Global Event Shaping our Water Future

The water sector faces a pivotal moment. With increasing global change pressures, cities around the world are experiencing difficulties in managing protracted droughts, flash floods and rising seas. Delivering solutions for these complex water management problems requires leading-edge scientific research, technological developments and new mindsets. Technology breakthroughs and innovative designs need to be coupled with comprehensive system changes to urban processes, institutions and regulations that ultimately shape our cities. As a sector we must embrace disruptive technologies and thinking, and adopt them at a much faster rate if we are to deliver maximum benefit.

The IWA World Water Congress & Exhibition 2018 is where the ideas for solutions are being fomented and can be rigorously debated. It plays a critical role in bridging the chasm between research and practice, to accelerate the development and diffusion of innovation in the global water sector. The 2018 edition will showcase innovations in areas such as resilient, flexible and adaptive urban water systems; systems thinking for integrated urban water management; reconsideration of the way water is used (and reused); resource recovery and reuse – generating value from wastes; and application of natural systems for water and wastewater treatment.

We at IWA are also happy to announce the launch several new initiatives including ones on Digital Water; Intermittent Supplies and Non-Sewered Sanitation.

6000+ Water Professionals

During five days, the critical debates shaping our water future will take place in 5 Leadership Forums, 9 Plenary Sessions, 55 Workshops, 88 Technical Sessions, 352 Presentations and over 680 Posters, and offers in the IWA exhibition to more than 240 exhibitors to showcase and demonstrate their work.

At this exciting week, the IWA water community will award outstanding water leaders in 7 IWA Award categories recognizing professional dedication and work, contribution to innovation and outstanding performance.

This year's IWA World Congress & Exhibition programme provides a great opportunity to network with water sector leaders, and to highlight and share knowledge on the latest trends in best practice, innovative technologies, pioneering research and science.

I have the honour to welcome you to the IWA World Water Congress & Exhibition in Tokyo!

Kalanithy Vairavamoorthy

Executive Director, International Water Association

Keynote Speakers

Leading voices and thought-leaders

Rudy de Waele

Founder and CEO, Shift 2020, Belgium

Yuriko Koike

Governor of Tokyo, Japan

Toshio Koike

Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan

Silver Mugisha

Chief Executive Officer, National Water and Sewerage Corporation, Uganda

Consciousness of Water

Rudy de Waele is a futurist, innovation strategist and change agent, content curator and author. He assists global brands, entrepreneurs and startups, companies and organisations with cutting-edge open innovation strategy using new methodologies to re-invent and transform business. He has helped diverse global brands such as BMW, IBM, Coca-Cola, Google, Intel, Louis Vuitton, Mastercard, Microsoft, Orange, PayPal, Samsung, Telefonica, Vodafone and the World Bank. His latest book, "shift 2020 – How Technology Will Impact Our Future", delivers impactful insights into how future influences such as IoT, genetics, robotics and AI will affect our collective daily lives, including foresights by some of the world's leading technology experts. He is an associate of The Futures Agency, a member of the IoT Council – a global think-tank for the Internet of Things, and a Strategic Advisor and Ambassador to Smart Cities World.

Strengthening Water-related Disaster Resilience for Sustainable Development

Yuriko Koike has been the Governor of Tokyo since July 2016. Before being elected to the post, she was active in national politics. She was a member of the House of Councillors and the House of Representatives for a total of 24 years from 1992, during which time she held major posts including Minister of the Environment, Minister of State for Okinawa and Northern Territories Affairs, Special Advisor to the Prime Minister for National Security Affairs, Minister of Defense, and Director of the Committee on Budget of the House of Representatives. As the first woman to serve as the Minister of Defense and the Governor of Tokyo, she is paving the way for women to be more active in society. With a BA in Sociology from Cairo University, she is fluent in English and Arabic, and was a prominent news anchor before entering politics.

Dr Toshio Koike is Professor Emeritus of the University of Tokyo, a Council Member of the Science Council of Japan, Cabinet Office and Chair of the River Council of Japan. His research interest includes the water cycle and climate sciences and their applications to water resources management, which can be classified into the following three components: establishment of satellite remote sensing; development of data integration and information fusion systems; and development of hydrological down-scaling methods including satellite-based data assimilation. Apart from his academic contributions, he has been leading international water cycle science projects and inter-governmental science and technology cooperation.

Water Governance and Institutional Issues in Developing Countries

Dr Eng Silver Mugisha holds a PhD in Engineering and Economics from Makerere University, Uganda. His PhD research, which was performed in collaboration with PURC of the University of Florida, USA, focused on areas of performance monitoring, incentive design and productivity analysis. He has published a book on "Utility Benchmarking and Regulation: Practical Application of Performance Monitoring and Incentives" and over 20 policy and research papers. Dr Mugisha has been the Managing Director of the National Water and Sewerage Corporation (NWSC) since August 2013. He has worked, on external consultancies, in Uganda and other foreign countries. He is a Vice President of the International Water Association (IWA) and Vice President of African Water Association (AfWA) for the East African Region. Dr Mugisha is a Senior Research Fellow at Public Utilities Research Centre (PURC), University of Florida, USA. He is also a fellow of the International Water Association and Sense Research School of the Netherlands.

Claudia Sadoff

Director-General, International Water Management Institute, Sri Lanka

The Status of and Outlook for Sustainable Development Goal 6

Dr Claudia Sadoff is the Director General of the International Water Management Institute (IWMI), a scientific "research for development" organisation headquartered in Sri Lanka. Before joining IWMI, she spent over 20 years at the World Bank where she held multiple positions including Global Lead for Water Security and Integrated Resource Management. She has served as a Distinguished Visiting Scholar at Oxford University, Chair of the GWP/OECD Task Force on Water Security and Sustainable Growth, and as a member of the World Economic Forum's Global Agenda Council on Water Security.

Shinichiro Ohgaki

President Japan Water Research Center (JWRC), Japan

Decision Making With Uncertainty – Challenges Facing Water Professionals

Professor Shinichiro Ohgaki is the President of Japan Water Research Center and Professor Emeritus and the former Dean of Graduate School of Engineering at The University of Tokyo. Professor Ohgaki also served as the President of the National Institute for Environmental Studies, one of the prestigious research institutions of the Japanese Government. He was one of the Vice Presidents of the International Water Association and served as one of the Vice Presidents of Science Council of Japan. His lasting contribution is in R&D for water use in urbanised areas and health-related water microbiology.

Rebekah Eggers

Global Water Leader, WW IoT, Energy, Environment, & Utilities Business, IBM, United States

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities

Rebekah Eggers currently has worldwide responsibility for IBM's Watson IoT Energy, Environment, and Utility solutions. She has dedicated over 20 years to working with utilities across the globe in various stages of leveraging technology and analytics. She began her career learning the industry and building a foundation of knowledge in the World Class Finance division of a "Big 5" consulting firm and went on to pursue her passion constructing solutions addressing emerging industry challenges. Recently as climate change, rising operating costs and technology advances have evolved, she has turned her focus to helping utilities add layers of digital intelligence to their infrastructure.

Sudhir Murthy

CEO, NEWhub, USA

Mark van Loosdrecht

Chair professor in Environmental Biotechnology, Delft University of Technology, Netherlands

Lars Therkildsen

CEO of HOFOR, Greater Copenhagen Utility, Denmark

Innovation to Implementation – Academia and Utility Perspectives

Dr Sudhir Murthy is the CEO of NEWhub, a Cleantech firm that commercialises new technologies and helps utilities and industry navigate their internal innovation processes. Previously, Dr Murthy was the Innovations Chief at DC Water, the public water utility that serves Washington DC metropolitan region. During his 16-year tenure at DC Water, he led innovations in water and wastewater treatment that resulted in the investment of nearly US$1 billion of new and innovative technologies and approaches. Much of the work was conducted through a worldwide open innovation programme. Dr Murthy has an MS and a PhD in Civil/Environmental Engineering from Virginia Tech, USA.

Mark van Loosdrecht is Professor in Environmental Biotechnology at TU-Delft. He obtained his PhD on bacteria adhesion in 1988 from Wageningen University. Since 1988 he has worked at Delft and became a Full Professor in 1998. His research is characterised by the combination of the scientific understanding of complex microbial systems and the development of new processes. Dr van Loosdrecht's scientific interests are mainly related to biofilm processes, nutrient conversion processes and the role of storage polymers in microbial ecology. His research has resulted in several processes currently applied at full scale such as the Sharon process, Anammox process and Nereda process. He is past chairman of the Biofilm and the Nutrient Removal Specialist Groups of IWA. He is Editor in Chief of the journal Water Research. He obtained the Lee Kuan Yew Singapore Prize and the Stockholm Water Prize, and is member of the Royal Dutch Academy of Arts and Sciences, the Dutch and the US Academy of Engineering.

The Options and Opportunities for a Big Multipurpose Utility

In 2008, Lars Therkildsen was appointed CEO of Københavns Energi A/S, which in 2012 merged to form HOFOR A/S, owned by eight municipalities, including the City of Copenhagen. HOFOR ensures that a million Danes receive clean drinking water, and supplies Copenhagen with climate-friendly district heating, town gas and district cooling. In addition, HOFOR discharges wastewater and erects wind turbines throughout the country.

Among other things, HOFOR owns seven regional waterworks, a power plant, two cooling centres as well as an extensive pipeline network through which water, wastewater, district heating, town gas and cooling are piped to and from customers. HOFOR's goal is to create sustainable towns and cities through green, safe and affordable utilities. Adaptation to climate change, cloudburst protection and the supply of CO2-neutral energy are just some of HOFOR's focus areas.

Lars Therkildsen also sits on several governing boards and is, inter alia, chairman of the Danish Water and Waste Water Association (DANVA).

INTERVIEW: NIGEL WATSON, CIO, NORTHUMBRIAN WATER

the Source

The magazine of the International Water Association

The rise of digital water

How technology will transform the 21st century utility

California's fight for the right to water

Why cutting supplies is not a solution to drought

The three scales of innovation

Issue 12, August 2018

£25 | €32 | $36

Forums

MONDAY, 17 SEPTEMBER

International Conference Room / 10:30 - 17:15

Disaster Counter-measures and Risk Management towards Resilient Cities*

The Forum focuses on the resilience of water supply, drainage and wastewater systems in cities. It is a unique opportunity to learn about the Japanese experience from the Great East Japan Earthquake in 2011 in recovering the functions of their water and sewerage works. The sessions also share practical experiences of several cities in the world on building water resilience strategies, understanding resilience as the capacity to recover after a disruptive event (disaster or crisis) or slow changes (diminishing resources, social changes, climate change). Lessons learned on how to assess the risks, how to reduce the risks and prepare for the emergency response will be shared throughout the three complementary sessions on the following topics:

- Lessons learned from the Great East Japan Earthquake, the recovery of water and sewerage works
- Enhancing water security
- Water, wastewater and drainage as opportunities to enhance resilience

For more information please contact Corinne Trommsdorff:
corinne.trommsdorff@iwahq.org

TUESDAY, 18 SEPTEMBER

Room 101 / 10:30 - 15:00
Hall B / 15:15 - 17:15

5th International Water Regulators Forum

The 5th International Water Regulators Forum (IWRF) welcomes high-level regulatory authorities and officials with regulatory and supervisory functions related to the provision of water, sanitation and wastewater management services. This year we continue facilitating peer-to-peer dialogue and learning across regulatory functions – economic, health, environment and quality of service; and bridging regulators across the sector and, especially, with the research, science and technology communities to enable the innovation and collaboration for the water-wise world we want. Sound working regulatory systems and mechanisms are one of the building blocks of this transition, with regulators being a driver for innovative investments and sustainable growth.

This 5th IWRF builds on previous editions to address the SDG challenge towards water-related ecosystems and their services (SDG 6.6 and 15.1) by 2030, to reach resilient and sustainable universal access to water and sanitation for all. The one day Forum will be complemented by a series of activities throughout the congress, connecting regulators to other water champions.

For more information please contact Carolina Latorre:
carolina.latorre@iwahq.org

WEDNESDAY, 19 SEPTEMBER

Room 101 / 13:30 - 17:15

Science to Practice Forum

Science and technology development is needs-driven and existing potentially disruptive technologies could help to accelerate innovation and adoption activities in the water sector. The main purpose of the Science to Practice Forum is to identify mechanisms and processes on translating science and technology into practice. Through this forum we would like to identify elements during this translation process such as challenges and barriers, necessary elements to lead to success, lessons learned, etc.

We will also exchange ideas on how science and technology can be translated into practices by different organizations and individuals from different segments (academia, utility, government, etc.) and in different areas and regions. The forum aims to be summarized into a report on the translation of science into practice with recommendations in terms of a set of general and specific challenges/ barriers we might face (and how to overcome them), what key factors lead to success, etc. The main audience of this forum will be researchers, utilities, consultancy and all other individuals and organizations interested in translating science into practice.

For more information please contact Hong Li:
hong.li@iwahq.org

** Invitation only.*
The remaining forums require pre-registration. For more information please contact the organizer.

Room 605 / 10:30 - 15:00

Basin-connected Cities Forum

Urban stakeholders have a critical role to play in preserving the freshwater resources on which they depend. A disruption in supply of freshwater resources to cities can have significant economic, environmental and health consequences. The Basin-Connected Cities Forum will explore what actions need to be taken today by cities to achieve sustainable management of basins into the future.

Join cities, regulators, utilities, industry and basin leaders in exchanging experiences and determining how to become better water stewards in their watersheds to secure the water resource, protect water quality and prepare for (and respond to) extreme events.

The Forum is an open event and will also launch the Action Agenda for Basin-Connected Cities, which aims to influence and activate urban stakeholders to protect and invest in water resources with basin and catchment organisations.

For more information please contact Katharine Cross:
katharine.cross@iwahq.org

THURSDAY, 20 SEPTEMBER

Room 605 / 10:30 - 15:00

Emerging Water Leaders Forum

The leaders of tomorrow need to start planning their water future today. Join the young and emerging water leaders in this forum to answer three key questions – posed by the Congress Keynote Speakers – that the sector will have to address in 2030–2050 in the areas of digital water, climate resilience and healthy liveable cities.

Using teaching and applying techniques to break complex questions down into smaller components, you will discuss the answers among your peers and with invited senior experts Banu Ormeci (Carleton University), Claudia Sadoff (IWMI Sri Lanka), Jean Spencer (Anglian Water, UK), Tom Mills (Xylem, Singapore), Philip de Souza (Emanti, South Africa), Gustaf Olsson (Lund University, Sweden), Xavier Litrico (Suez, France), Tony Wong (CRC for Water Sensitive Cities, Australia) and Mark Fletcher (Arup, UK).

You will practise your problem-solving skills whilst developing actions towards planning our future. Be part of the #FutureWaterLeaders #WorldWaterCongress

For more information please contact Kirsten de Vette:
kirsten.devette@iwahq.org

THURSDAY, 20 SEPTEMBER

Meeting Room 2 / 10:30 - 15:00

Utility Leaders Summit*

The Utility Leaders Summit (ULS) will be an ideal place to exchange and network with fellow utility leaders. This session will close the Congress with an opportunity to exchange between high-level utility leaders on the ability for utilities to drive change and innovate for their customers towards a water-wise world. Part 1 of the ULS will focus on how utilities can deliver added value beyond basic services. Part 2 will dive into planning and investing in innovation. Part 3 will be an opportunity to discuss on ensuring resilience. And Part 4 will close with a discussion on how to put the customer in the driver's seat and continue the discussion among utility leaders during the World Water Congress & Exhibition in Copenhagen 2020.

The objectives of the Forum are as follows:

- Provide utility leaders with a space to exchange amongst peers on the strategic orientations and choices to steer their utility.
- Utility leaders create connections that will potentially lead to future utility-to-utility knowledge exchange
- Utility leaders are triggered in their thinking and ways of working by the content discussed. Be inspired by how things are done differently in different places.
- How IWA is guided to better help leaders achieve their goals?

For more information please contact Corinne Trommsdorff:
corinne.trommsdorff@iwahq.org

** The forums are by invitation and pre-registration only. For more information, please refer to the contact details.*

Training

You have to be registered for the training sessions to attend.

MONDAY 17 SEPTEMBER

Delivering Regulatory Excellence in the Water–Energy Nexus (7hrs)

Room 802 / 07:30 - 16:30

Organiser: International Centre of Regulatory Excellence

After this training, you will:

- Be able to apply principles of the Regulatory Excellence Model;
- Be able to isolate the parts of the model most relevant to your home situation and do a gap analysis within your own regulatory context (no matter what or how you regulate);
- Learn how emergent and renewable geo-energy resources like shale gas, geothermal energy, and carbon-capture and storage tie to regulatory and operational challenges in water supply, wastewater treatment and disposal, and watershed/aquifer stewardship; and
- Get insight into how excellent regulators balance the competing triple-bottom-line objectives in the water–energy nexus.

Target Audience:

The following professionals working in the water-energy nexus:

- Water regulators;
- Water-policy makers;
- Decision makers;
- Advisors in firms.

TRAINING COSTS FOR TRAININGS FROM MONDAY TO THURSDAY:

- IWA members – € 25
- Non- IWA members – € 50

TUESDAY 18 SEPTEMBER

Performance Assessment and Improvement in Urban Water Services: The IWA Approach (7hrs)

Room 802 / 08:30 - 17:00

Organiser: IWA Benchmarking and Performance Assessment Specialist Group

After the course, you will be able to:

- Develop a performance assessment (PA) system for urban water services;
- Adapt the PA system to the needs and limitations of the case of application;
- Analyse the results from PA systems using Sigma, a free software; and
- Cluster utilities into different groups according to their context.

Target Audience:

All water professionals with a focus on managers of water services, policy-makers and regulators of the water sector.

Climate Smart Utilities – Tools for Building Resilience (3.5 hrs)

Room 801 / 13:30 - 17:15

Organiser: IWA and Emanti

After the training, you will be able to:

- Explain the concept of climate-resilient water safety planning;
- Interpret and use climate data to identify hazards and risks to be included in water safety planning; and
- Apply a methodology that supports the identification, assessment of climate risks impacting your water utility analysis of climate issues, and how to monitor and respond to the risks.

Target Audience:

- Water utility staff (technical/operational) dealing with water and climate risks;
- Water utility staff involved in water safety planning; water professionals advising water utilities.

WEDNESDAY 19 SEPTEMBER

Non-Revenue Water Management in Low- and Middle-Income Countries (7hrs)

Room 802 / 08:30 - 16:00

Organiser: IWA Water Loss Specialist Group

After this training, you will have a better understanding of:

- How to assess the the Non-Revenue Water Management (NRW)problem in a water utility;
- Preparation of an NRW reduction plan;
- Simple ways to do an initial cost–benefit analysis; and
- Problems of starting to engage in comprehensive NRW.

Target Audience:

- Policy-makers and other key decision makers;
- Water utility managers;
- Consultants;
- Representatives from International Funding Agencies and NGOs.

THURSDAY 20 SEPTEMBER

Infrastructure Asset Management in Light of ISO 5500x Standards (7hrs)

Room 802 / 08:30 - 15:00

Organiser: IWA Strategic Asset Management Specialist Group

After this training, you will:

- Understand the Concept of Infrastructure Asset Management (IAM) in light of ISO 5500x and its application in urban water services;
- Be able to apply the principles of IAM in urban water services with a focus on developing a sound assessment system; and
- Be able to select appropriate approaches, techniques and methodologies for the implementation of IAM based on the assessment.

Target Audience:

- Administrators and engineers of public services;
- Research institutions;
- Ministries and government agencies;
- Decision makers;
- All those managing and operating water infrastructure assets.

FRIDAY 21 SEPTEMBER

The Human Rights to Safe Drinking Water and Sanitation (HRWS): Focus on Ensuring Drinking Water Quality (7hrs)

Hilton Odaiba / 08:30 - 17:15

Organiser: IWA

After this training, you will have a better understanding of:

- The human rights to safe drinking water and sanitation, and what these entail for service delivery in terms of policies, regulation and management;
- The specific needs for drinking water quality as a human rights criterion, and how to tackle human rights challenges in drinking water quality management; and
- How the human rights criterion of drinking water quality relates to the indicators of target 6.1 under the Sustainable Development Goals framework.

and you will have developed skills:

- To engage in a productive dialogue between utility managers, regulators and human rights specialists; and
- To make considered decisions on introducing human rights elements into their managerial and regulatory functions.

Target Audience:

- Managers of utilities;
- Drinking water quality regulators;
- NGO staff with responsibilities for drinking water supply in low- and middle-income countries;
- Human rights specialists.

Delegate Category Training fee*

IWA member - €350

Non IWA member - €450

IWA LIC member + Students - €250

Non IWA LIC + Students - €350

FRIDAY & SATURDAY 21 & 22

Modelling Activated Sludge Plants (14 hrs)

Chuo University / 10:00 - 18:30

Organiser: IWA Good Modelling Practices Task Group

After the training, you will:

- Know and fully understand the principles of mathematical models for wastewater treatment plants;
- Understand the structure of the IWA Activated Sludge Models (ASMs) and their use in practice;
- Understand the requirements and needs for performing a simulation study for AS plants; and
- Be able to use a simulator for building, running and calibrating a model for a AS plants.

Target Audience:

The following (young, emerging and established) audiences interested in modelling wastewater treatment

- Consultants;
- Plant managers or operators;
- Water boards; and
- Academics.

Delegate Category Training fee*

IWA member - €300

Non IWA member - €400

IWA LIC member + Students - €250

Non IWA LIC + Students - €350

* The post-congress trainings comes at an extra cost and is separately accessible to non-delegates of the congress also.

** The Fee includes morning coffee/ tea, lunch and materials. Participants are requested to bring their laptops.

For more information please contact Kirsten de Vette:
kirsten.devette@iwahq.org

Specialist Groups, Task Groups and Clusters

Open meetings schedule

One of the unique strengths of IWA is bringing together experts from across the globe and specialisations. To facilitate this, IWA members organize themselves into Specialist Groups (SG), Task Groups (TG) and Clusters. IWA Specialist Groups are central to IWA's work and mission. Group members are engaged in activities such as organising conferences, seminars and workshops; writing books, reports, newsletters and journal papers.

During the IWA World Water Congress, many specialist Groups (SG), task groups (TG) and clusters have open meetings to which all congress delegates are welcome. Do not miss this unique opportunity to connect and network with specialists and leaders in the respective fields, and to update your knowledge on the issues that interest you.

MONDAY 17 SEPTEMBER

SMALL WATER AND WASTEWATER SYSTEMS

Room 603
10:30 - 12:00

The group meeting will mainly discuss the points from the SG leaders meet. The group will discuss the activities went on since the last meeting held in France. Further to discuss the conference planning to be held at Israel during October 2018. There is also a new proposal for conference organisation in Brazil, which will be presented. The meeting will also be open for discussions from other members.

WETLAND SYSTEMS FOR WATER POLLUTION CONTROL

Room 602
10:30 - 12:00

Welcome @ Wetland Systems 4 WPC open meeting. During this event, we will mostly present the SG activities and the management structures. We will also present our involvement for the IWA world water congress and 3 recent major international initiatives related to the use of Nature Based Solutions. We will have a discussion on how to attract news members and how to optimize our collaboration with other SGs. Finally our past and forthcoming SG conferences will be presented.

DESIGN, OPERATION AND COSTS OF LARGE WASTEWATER TREATMENT PLANTS

Room 603
12:15 - 13:15

The open meeting will give an update on group activities and the management structures. A main focus is given to the preparation of the next SG conference 2020 in Vienna and 2022 outside of Europe. We look forward to an interesting discussion and invite you to join us.

INSTRUMENTATION, CONTROL AND AUTOMATION

West Hall 1
Room 5
12:30 - 13:15

The open ICA-SG meeting will show the objectives, organization and activities of the group, and also present the call for affiliated YWPs to the management committee. We look forward to discussing the future of the group, going beyond Instrumentation, Control and Automation, to Information and Communication Technologies (ICT), Internet of Things (IoT) and Smart Water Factories following Industry 4.0.

JOINT MEETING ON INTERMITTENT WATER SUPPLY AND WATER LOSS

West Hall 1
Room 4
12:30 - 13:15

This joint meeting will provide an opportunity to inform participants of the purpose, objectives and deliverables of the Groups and to exchange ideas and thoughts on the way forward in assisting water utilities and governments in improving the level of service to consumers and water supply conditions in general reflecting on technical, financial, institutional, social and communication challenges and constraints. An excellent chance to be part of an exciting future and learn how to deliver successful NRW programs from world experts.

MEMBRANE TECHNOLOGY

West Hall 1
Room 7
12:30 - 13:15

In open meeting, we will report the renewed management committee members, update the coming group events, and discuss the future work of the SG, including how to enhance the communication and interaction within the SG, how to play the role of YWPs, and how to collaborate with other SGs.

RESOURCE RECOVERY FROM WATER CLUSTER

West Hall 1
Room 2
12:30 - 13:15

The RR-cluster was established in '14 with the main objective to boost Resource Recovery from the water cycle. During this meeting we will give you an update of our activities and results. We will look forward: e.g. the upcoming RR-conference in Venice '19, our joint book on RR and our plans for webinars. Please join us and let yourself be submerged into this important and interesting 'new' topic in the water sector.

WATER SAFETY PLANNING

Room 602
12:15 - 13:15

In our SG open meeting we will report the renewed management committee members, and discuss the future work of the SG, including how to advocate widespread water safety plans implementation. All SG members and those congress participants who are interested are welcome to join the open meeting.

SUSTAINABILITY IN THE WATER SECTOR

West Hall 1
Room 7
13:30 - 15:00

Our specialist group supports water use that promotes healthy communities and economies while protecting the environment. Please come learn about what we are doing in the areas of (1) sustainable use of water by industry and (2) workforce issues in the water sector.

TUESDAY 18 SEPTEMBER

DISINFECTION

Room 602
10:30 - 12:00

Our SG cares the issues related with water, wastewater and sludge disinfection, including disinfection process, microorganims inactivation, disinfection by-products and water stability in distribution system. This group open meeting will welcome all the delegates interested in these topics. We will introduce our new management committee, report the work in the past 2 years, set up the roadmap for next years and discuss the trend of disinfection development.

ASSESSMENT AND CONTROL OF HAZARDOUS SUBSTANCES IN WATER

West Hall 1
Room 5
12:30 - 13:15

The ACHSW open meeting will provide an update on SG's activities in year 2018 and will also discuss about the planned activities in year 2019. The hot topics and trends on micropollutants and their assessment and control will be presented and discussed in the meeting. All ACHSW SG members and those congress participants who are interested are welcome to join the open meeting to have interactions.

PRETREATMENT OF INDUSTRIAL WASTEWATERS

Room 603
12:15 - 13:15

The SG open meeting provides a place to discuss the future evolution of our strategic objectives; debate new areas to be presented in the report on SG trends; discuss our conference in Germany in November 2018; and look for new regional Committee members to enhance annual activities.

SLUDGE MANAGEMENT

West Hall 1
Room 4
12:30 - 13:15

Our open meeting will provide an update on group activities, conferences, book projects, research awards and other initiatives. We are also actively seeking new members for our management committee and will provide information on the election process. The group meeting will be followed by the ceremony for the presentation of the P. Aarne Vesilind Specialist Medal for Residuals Research to Prof. Okuno at the Japan Paviliion at 4 pm.

INSTITUTIONAL GOVERNANCE AND REGULATION

Room 602
13:30 - 15:00

We contribute to the understanding of responsibilities of institutions and aspects of institutional arrangements, resource planning and service provision (I); development of appropriate governance structures and stakeholder engagement (G); and aspects of regulation of resources and services (R) for attainment of the Sustainable Development Goals. Join us to learn more.

WEDNESDAY 19 SEPTEMBER

METALS AND RELATED SUBSTANCES IN DRINKING WATER

Room 602
10:30 - 12:00

The main focus of SG METRELS open meeting will be on how to engage new members and to work together through different activities and communication channels available. After a brief introduction of the group's ideology an overview of the ongoing and planned activities will be presented and discussed.

ADVANCED OXIDATION PROCESSES

West Hall 1
Room 3
12:30 - 13:15

The open meeting of the SG AOP will give an update of the Group Structure and activities planned for 2018/2019. All SG members and people interested in Advanced Oxidation Process are welcome to join the meeting for sharing information and discussion of trends in AOP

DIFFUSE POLLUTION AND EUTROPHICATION

West Hall 1
Room 4
12:30 - 13:15

The SG promotes understanding of diffuse pollution from urban and rural watersheds and eutrophication and algal blooms in surface waters. At our meeting, we will introduce our SG activities and upcoming events, and discuss the priorities of future direction. We will also open floor for networking and diffusing our knowledge with attendees from all over the world. Please feel free to join us! We would welcome your participation and look for new members.

HEALTH-RELATED WATER MICROBIOLOGY

Room 603
12:15 - 13:15

The open meeting of Health-Related Water Microbiology (HRWM) Specialist Group will inform IWA WWC participants on recent activities of HRWM SG, present the schedule FOR our UPCOMING biannual symposium, the award type and selection system as well as the status of the Journal of Water and Health.

MODELLING AND INTEGRATED ASSESSMENT

West Hall 1
Room 5
12:30 - 13:15

We will present the Management Committee and its associated YWPs, and ongoing activities relating to MIA Task Groups and Working Groups and upcoming events. Join us to know more how you can get involved in MIA SG. We are also keen to hear your topics and ideas. Welcome!

STRATEGIC ASSET MANAGEMENT

West Hall 1
Room 7
12:30 - 13:15

The SAM SG is pleased to invite you to our open meeting where we will present our new Management Committee and engage you in the groups' latest developments and future events.

WATER SECURITY AND SAFETY MANAGEMENT

Room 602
12:15 - 13:15

What are the significant risks that might impair the water and sanitation services? How to prevent them from striking, and how to limit their consequences? How to implement effective preparedness for more resilient services? What are the best practices? These are questions to which W2SM Specialist Group tries to give answers.

PUBLIC AND CUSTOMER COMMUNICATIONS

Room 602
15:45 - 17:15

This open meeting will provide attendees an opportunity to learn the purpose, objectives, and agenda of the SG. It is also an excellent platform for the participants to meet the newly elected management committee, and to exchange ideas, opinions and thoughts on customer communication, crisis communication, and the challenges that come with public participation.

THURSDAY 20 SEPTEMBER

ANAEROBIC DIGESTION

West Hall 1
Room 3
12:30 - 13:15

The IWA SG on Anaerobic Digestion (AD) is an international forum for activities related to anaerobic conversion processes. The core issues of the open meeting is concerned with the following: (1) to discuss the updating of the SG scope; (2) to discuss the activities planned for 2018/2019. All SG members and people interested in anaerobic process are welcome to join the meeting.

BENCHMARKING AND PERFORMANCE ASSESSMENT

Room 603
12:15 - 13:15

The BPA SG welcomes any Congress delegate to join us to know more about our topics, group activities, and the options to actively participate in our group.

EFFICIENT URBAN WATER MANAGEMENT

West Hall 1
Room 4
12:30 - 13:15

The mission of the Efficient Urban Water Management Specialist Group is to encourage the interchange of knowledge, research, best practices and programs regarding efficient management and use of water in urban zones. Our meeting will cover current projects/ initiatives and the next Efficient conference in January 2019 in Manila.

MICROBIAL ECOLOGY AND WATER ENGINEERING

Room 602
12:15 - 13:15

Our goal is to foster greater collaboration between water research and practice, in order to develop novel, technology-oriented solutions that provide the most benefit to the water sector and society. All delegates are welcome to the MEWE SG open meeting where the an update on recent SG activities and how to get engaged with the group will be presented.

Technical Tours

Connecting you to leading practice and large scale applications

Book your place early for one of the Friday 21 September full or half day Technical Tours

Please note numbers to tours are limited and bookings will be taken on a first in basis.

TOKYO WATERWORKS' HUMAN RESOURCES DEVELOPMENT AND INHERITED TO NEXT GENERATION

€40 per ticket

Friday 21st September, 09:45 – 12:30

Training and Technical Development Center

The facility is combined between training section and R & D section of the Tokyo Waterworks. The largest experience-based facility for waterworks training in Japan.

Experience training at the training field such as water leakage detection, etc. and demonstration of R & D products, etc.

Implement demonstration and hands-on experience of emergency water supply by a waterworks emergency services unit who is a rapid response organization in case of "earthquakes" and "accidents".

**Participate with comfortable clothes is desirable.*

TECHNOLOGY AND PRODUCTS OF JAPANESE COMPANY – TOUR OF JAPAN'S LARGEST FACTORY OF STEEL PIPES FOR WATER

€40 per ticket

Friday 21st September, 09:45 – 11:45

Water pipeline manufacturing plant

JFE Engineering Corporation has one of the largest manufacturing lines of steel pipes for water in Japan. In this tour, you can see the manufacturing process of steel pipe from a steel plate through welding, painting, etc. Diesel engines, large shield machines, etc. are also manufactured in the same plant.

Course of tour:

- Showing DVD and brief presentation
- Plant tour (steel pipes, shield machines, etc.)

**Participate with comfortable clothes is desirable.*
**Photography in the plant is not allowed.*

WATER FLOW IN TOKYO – WATER INTAKE, PURIFICATION AND DISTRIBUTION

€70 per ticket

Friday 21st September, 10:30 – 16:45

Akigase Intake Weir, 10:30 – 11:30

Akigase Intake Weir was constructed to cope with growing demand in the Tokyo metropolitan area, which utilized water developed in Tone river, and Ara river. The water is used for supplying domestic and industrial purposes in Tokyo as well as Saitama, and for drawing water stably to use water purification in Sumida river.

Course of tour:

- Guide to the facility
- Visit to the operation room
- Visit to the intake weir

**Participate with comfortable clothes is desirable.*

Asaka purification plant, 13:00 – 14:30

The purification plant to support civic life for 13 million citizen of Tokyo and urban activities in the capital of Japan. Introduction of advanced water treatment by ozonation and biogical activated carbon in order to supply more safer and tastier water.

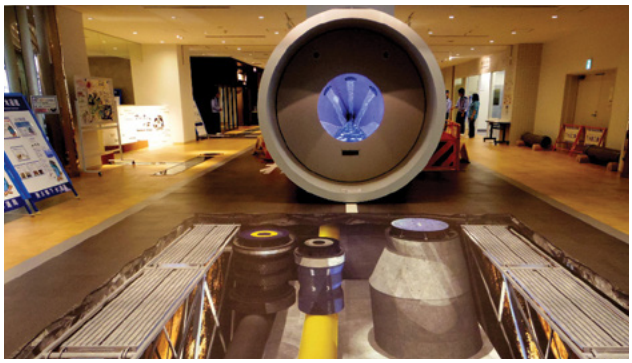
Due to security measures, below conditions are required to follow strictly upon implementation.

** Mandatory to confirm identification by ID with a photo such as passport, etc.*
** Tour course is limited within allowable areas.*
** Photography is prohibited.*

Construction site, 14:45 – 16:45

Tours on practical construction sites which are under-construction by the Tokyo Waterworks. It is possible to visit shield construction sites of large-diameter transmission pipes with 2600mm by getting down from the departure shaft.

**Participate with comfortable clothes is desirable.*
**Impossible to participate in the high-heeled shoes or sandals.*



FLOOD CONTROL INFRASTRUCTURE BY UTILIZING URBAN SPACE AND INHERITED TO NEXT GENERATION BY TOKYO SEWERAGE

€70 per ticket

Friday 21st September, 10:30 – 15:00

Tokyo Sewerage Museum "Rainbow", 10:30 – 11:30

Tokyo Sewerage Museum "Rainbow" is the PR hands-on facility where children can learn about sewerage. By experience work with having access to sewerage pipes, pumping station, central monitoring room and water analysis room, children can learn about aspiration and devise of people who involves with sewerage works (Only introduction available about the hands-on at the time of attending the tour).

The Metropolitan Area Outer Underground Discharge Channel, 14:00 - 15:00

The Metropolitan Area Outer Underground Discharge Channel is the world's largest underground discharge channels at 50 meters below ground with a 6.3 kilometers long tunnel. The total storage capacity is 670,000m^3. The channel is the flood-control measures facility and consists of the "Inflow facilities" and "Banks" for taking water from the rivers, the "Tunnel" of the underground water channel for directing intake water downstream while pooling, the "Pressure-adjusting water tank" for reducing the water flow in the underground area and securing a smooth flow, and the "Draining pump station" and "Drainage sluiceway" for draining intake water from underground areas.

Course of tour:

- Pavilion tour (introducing of basin and projects, and tour of exhibition in the pavilion) *(approx. 30 minutes)*
- Tour of pressure-adjusting water tank (underground) *(approx. 30 minutes)*

**Participate in the clothes and shoes which may be stained.*
**Impossible to participate in the high-heeled shoes or sandals.*
** In event of heavy rain or facility operation, a slight change in the tour course may occur.*

TOKYO SEWERAGE'S SEWAGE TREATMENT AND HUMAN RESOURCES DEVELOPMENT

€70 per ticket

Friday 21st September, 09:30 – 12:00

Sunamachi Water Reclamation Center, 09:30 – 11:00

Sunamachi Water Reclamation Center is the second oldest wastewater treatment plant in Tokyo since 1930. Sunamachi treatment area is a delta area surrounded by Sumida River and Arakawa river. The center is treating the sewer generated from the vast zone (6,153ha) with Ariake Water Reclamation Center.

The treated water is discharged to Tokyo Bay. Besides, a part of the treated water is cleaned through sand filtration and used inside the center for cleaning facilities, cooling machines, and flushing toilets.

The Sewerage Technology Training Center, 11:00 – 12:00

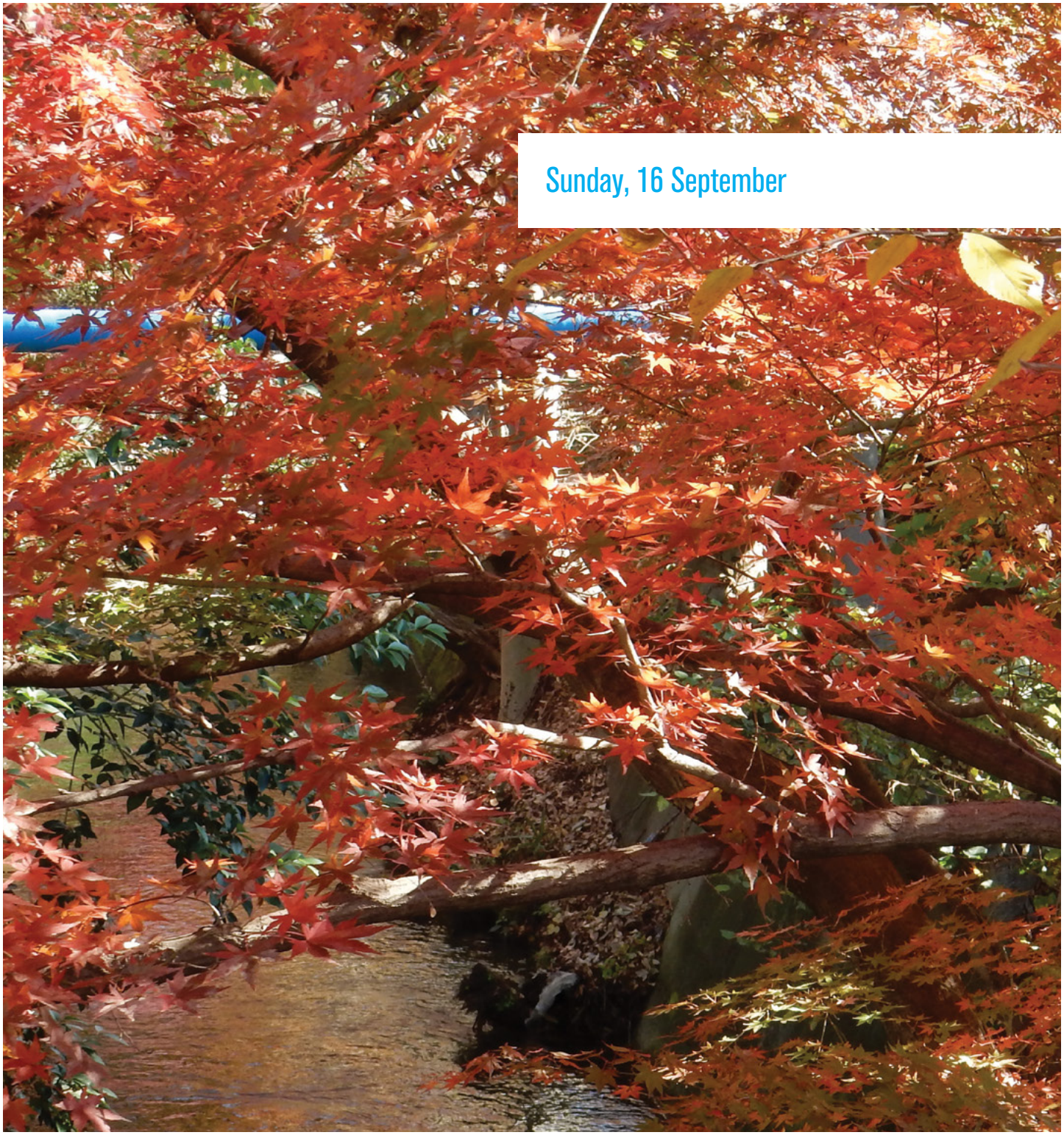
The Sewerage Technology Training Center has been established as Japan's first large-scale training facility for human resources development and technology in heritance in sewerage industry. It is located in Sunamachi Water Reclamation Center and has 21 training facilities in the training building and 12 training facilities outside.

Sightseeing Tours

Explore Tokyo and surrounding regions with our programme of full day and half-day tours to the top sights on offer. Additional tours will take you to some of Japan's most recognised destinations, including Mt Fuji, Ueno Zoo, and Disneyland Tokyo.

To find out more or book go to **www.worldwatercongress.org**

Find out more about each tour or book your place online at **www.worldwatercongress.org** or use the attached registration form



Sunday, 16 September

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Opening Ceremony

the IWA Awards, Toasting Ceremony and Welcome Reception

Opening Ceremony, Sunday 16 September, 16:00 - 18:00 ▪ International Conference Room

The Congress's must-attend opening event features the highest-level international and regional water and political leaders. His Highness the Crown Prince of Japan, the Governor of Tokyo and other high-level representatives from the Japanese Government will welcome all participants to initiate the discussions about one of the most precious issues for human survival. It will set the tone for the week and explore the big issues to be addressed throughout the 2018 World Water Congress & Exhibition. The importance of water is manifested by the presence of the highest representatives of Japan in areas as diverse as health, labour and welfare; land, infrastructure and transportation; economy, trade and industry; and last but certainly not least environment. Sri Lanka and Denmark as hosts of the next main IWA Congresses & Exhibition will also contribute to the international dynamic of the ceremony.

Consciousness of Water

Rudy de Waele
Founder and CEO,
Shift 2020, Belgium

Rudy de Waele is a futurist, innovation strategist and change agent, content curator and author. He assists global brands, entrepreneurs and startups, companies and organisations with cutting edge open innovation strategy using new methodologies to re-invent and transform business. He has helped diverse global brands such as BMW, IBM, Coca-Cola, Google, Intel, Louis Vuitton, Mastercard, Microsoft, Orange, PayPal, Samsung, Telefonica, Vodafone and World Bank. His latest book shift 2020 – How Technology Will Impact Our Future delivers impactful insights into how future influences such as IoT, Genetics, Robotics and AI will have on our collective daily lives and includes foresights by some of the world's leading technology experts. He is an associate of The Futures Agency, a member of the IoT Council – a global think tank for the Internet of Things, and Strategic Advisor and Ambassador to Smart Cities World.

Workshops

High Quality Water Supply and Sewerage Systems in Japan - Innovative Technologies and Collaborative Practices

Room Reception Hall A / 13.00-14.30

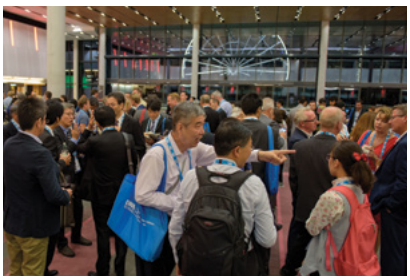
The session starts with an overview of the water supply and sewerage systems in Japan by Dr. FURUMAI Hiroaki (The University of Tokyo). Mr. KORESAWA Yuji (Ministry of Health, Labour and Welfare) will then present specifically on the water supply in Japan, followed by Mr. UEMATSU Ryuji (Ministry of Land, Infrastructure, Transport and Tourism) presentation on sewerage works in the country. Mr. KIMATA Masatoshi (Federation of Japan Water Industries, Inc.) will present on "How Japanese Industries are Striving for High-Quality Water Technology". The session ends with Dr. FURUMAI Hiroaki view on "Future Prospects of the Urban Water Infrastructure in Japan

Make the Most Out of the Congress: First-Time Attendees

Room 101 / 14:30 - 15:45

Attending a congress takes you away from your job, study, or your family life, and we need to make the most of the congress to justify the attendance. But coming to an IWA congress for the first time, you may require some support to get connected, and to process all the types of session (workshops, training, forums, lectures) that will be held, the networking events that happen, the exhibition and what you can gain there, the apps/programme book and browsing through them. IWA members with experience in conference attendance will offer assistance.

Toasting Ceremony and Welcome Reception



Kagami Biraki Toasting Ceremony

18:20 – 18:30, Atrium

Welcome Reception

18:30 – 20:00, Exhibition Hall

An early opportunity to connect and network with other water sector professionals in a relaxed and informal setting. The Welcome Reception will take place in the 2018 World Water Congress Exhibition Hall, which will be the centre of networking throughout the week.

The 2018 IWA Awards

The IWA Awards are a vehicle through which IWA encourages and rewards innovation and sets international benchmarks for innovative thinking, and application of solutions for wise water management and practice. The awards recognise the broad range of excellence, leadership and innovation that IWA members and network participants bring both to our Association and to the industry at large, and they exist to encourage the continued role of innovation in contributing to the sustainable management of water.

IWA Global Water Award 2018

Professor Tony Wong

Cooperative Research Centre for Water Sensitive Cities

Over the past 30 years, Professor Wong has pioneered a programme of work — the water sensitive cities approach — that uses a unique socio-technical approach to concurrently address the social, environmental and economic challenges of traditional urban water management. This approach is the culmination of Professor Wong's significant achievements in research and development across technology, urban design and policy. These advances are not only significant, but have consistently reflected his foresight and creativity in generating new directions and potential solutions that push through barriers to better urban water management. His early work on water-sensitive urban design (WSUD) is now globally diffused, and his subsequent reimagining of WSUD within the water-sensitive cities approach has been mainstreamed across Australia and, increasingly, among developing nations.

IWA Women in Water Award 2018

Professor Akiça Bahri

National Agricultural Institute of Tunisia (INAT)

Akiça Bahri, an agricultural engineer by training, has worked in water research in the fields of water resources development and management, agricultural use of marginal waters and biosolids, and their impacts on the environment with a focus on water quality and water use efficiency. She has been dealing with the double-sided problems of dwindling water resources and the risks of soil deterioration associated with land application of brackish and reclaimed waters and sewage sludge. She has a long-standing interest in how a more integrated approach to managing water, stormwater, wastewater, a fecal sludge, biosolids and solid wastes can contribute to meeting water demand and protecting the environment.

IWA Young Leadership Award Winner

Jacob Kwasi Amengor

Ghana Water Company

Jacob has secured land as a first step of achieving his vision of setting up a water research and management institute that will focus on carrying out research studies, training young professionals on varied areas within the water sector, organizing professional development courses and engaging industries and policy-makers to implement the outcomes of research studies for the sustainable development of the water and sanitation sector in Africa. Ultimately, Jacob wants to see an Africa where access to clean water and sanitation is no longer a reserve for the privileged few; rather, a human right realised for all regardless of place, class and status.

IWA Professional Development Award

Black & Veatch

Sustainability of its business and success is to Black & Veatch the people who research, develop, design, construct and manage them and the way the company provides them with career development opportunities. Black & Veatch does this through a robust career development program that features the rotational program EDGE (Experience, Develop, Guide, Excel), the connection inhouse programme for professionals and projects in needs of specific expertise NextOpps. It further puts special attention to formation and matching career paths of and for project managers (PM). Further to these strong pillars of inhouse career the other remarkable career development component the company puts emphasis on are mentoring, onboarding programs, Growth Accelerator and leadership development.


Bureau of Sewerage Tokyo Metropolitan Government is responsible for constructing, operating and managing Tokyo's sewerage system, which plays a vital role in ensuring a safe and pleasant living environment. We are promoting reconstruction of facilities, flood control, earthquake measures, combined sewer system improvement, advanced treatment, global warming measures etc.
Web address: http://www.gesui.metro.tokyo.jp/english/
Bureau of Sewerage
Tokyo Metropolitan Government
Wada-Yayoi Trunk Sewer
It is the biggest flood control storage sewer in Tokyo.
[Data]
Diameter 8.5m
Length 2.2km
Depth 50m(max)
Storage volume 150,000m3
PHOTO：Takuya Omura（dobohaku.com）


Bureau of Waterworks, Tokyo Metropolitan Government supplies high quality safe and tasty tap water as a lifeline to support civic life and urban activities in the capital of Japan.
In addition, we operate resilient and sustainable waterworks system which can endure various risks including disasters and climate change.
Stable Supply
& High Quality
東京水
PURE TOKYO WATER
Bureau of Waterworks
Tokyo Metropolitan Government

Monday, 17 September

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Monday Spotlight

Keynote Plenary ▪ International Conference Room

09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development

Keynote speakers:

Yuriko Koike
Governor of Tokyo, Japan

Toshio Koike
Director, International Centre for Water Hazard and Risk Management (ICHARM)

17:15 - 17:45

Water Governance and Institutional Issues in Developing Countries

Keynote speaker:

Silver Mugisha
Chief Executice Officer, National Water and Sewerage Corporation, Uganda

Panel discussion:

Hamanth Kasan
General Manager, Scientific Services, Rand Water, South Africa

Eleanor Allen
CEO, Water for People, United States

Rosie Wheen
Chief Executive, WaterAid, Australia

Roshan Shrestha
Senior Program Officer/Lead, Urban Sanitation Market, Bill & Melinda Gates Foundation, United States

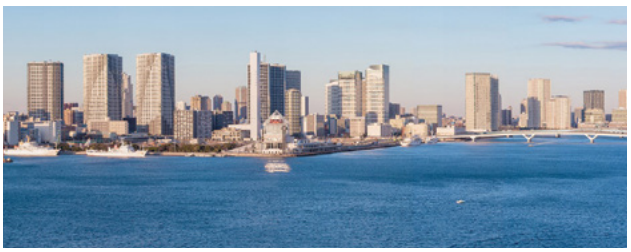
Marcus Rink
Chief Inspector for England and Wales, Drinking Water Inspectorate, United Kingdom

Rafaela Matos
Research Coordinator, LNEC, Portugal

Forum ▪ International Conference Room

09:45 - 17:15

Disaster Counter-measures and Risk Management towards Resilient Cities



The Forum focuses on the resilience of water supply, drainage and wastewater systems in cities. It is a unique opportunity to learn about the Japanese experience from the Great East Japan Earthquake in 2011 in recovering the functions of their water and sewerage works. The sessions also share practical experiences of several cities in the world on building water resilience strategies, understanding resilience as the capacity to recover after a disruptive event (disaster or crisis) or slow changes (diminishing resources, social changes, climate change). Lessons learned on how to assess the risks, how to reduce the risks and prepare for the emergency response will be shared throughout the three complementary sessions on the following topics:

1. Lessons learned from the Great East Japan Earthquake; the recovery of water and sewerage works
2. Enhancing water security
- Water, wastewater and drainage as opportunities to enhance resilience

Please note that there will be simultaneous translation between Japanese and English. Arrive early to acquire your headsets for the entire forum.

IWA Pavilion

On Monday morning, join for a coffee at the IWA Pavilion and meet the newly appointed Emerging Water Leaders Steering Committee. Later in the day, seize the opportunity to exchange ideas with IWA President, Diane d'Arras and IWA Executive Director Kala Vairavamoorthy over lunch. Highlight is the partnership of IWA with the Chartered Institution of Water and Environmental Management; and the launch of the Lisbon Charter in Japanese. Be sure to check in for other activities planned such as book launches from IWA Publishing and pitches from IWA members!

Skill Development - Room 801

15:45 - 17:15

Publish in Style, a How To for Authors

Getting your work published is not easy! Ensuring your message comes across is not either. In this session we will be working with you on how to adapt your paper to the desired readership, whilst helping you to understand what a journal reviewer is looking for in a paper.

IWA Project Innovation Awards (PIA) Gala 2018 ▪ Hilton Tokyo Odaiba

18:45 - Cocktail Reception
19:30 - Dinner and Awards Presentation

The Project Innovation Awards (PIA) recognise and promote excellence and innovation in water management, research and technology.

This year's revamped PIA programme features six exciting new categories, each recognizing a distinct aspect of water innovation. From breakthroughs in research to innovations in governance, the 2018 PIAs have truly gone global – attracting a record 160 entries from 45 countries. An expert panel of judges have selected three finalists for each category. The Category Winners will be announced at the Awards Presentation in Tokyo – and the best among them will be crowned winner of the new and exclusive Grand Innovation Award.

Introducing the Drs Kiran and Pallavi Patel Grand Innovation Award

Celebrating ground-breaking achievement in the global water sector, the inaugural Drs Kiran and Pallavi Patel Grand Innovation Award will be presented to the outstanding example of innovation selected from amongst the six PIA Category Winners.

Exhibition

12:00 – 13:30*

Denmark Pavilion Danish Approach to Energy Use and Recovery in the Water Sector

Presented by: Danish Minister, Water Utilities and Companies

Water is energy intensive; accounting for 2% and 4% of the total energy consumption in the world. In Denmark, energy efficiency and energy recovery in the water sector have high priority. The Danish approach to energy savings and recovery will be presented followed by concrete examples from major Danish wastewater treatment plants.

Monday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

CUSTOMERS AND TARIFFS

R. Hall A
Technical

Chairs: Stuart White *Australia* and **Aaron Burton** *United Kingdom*

10:30 How Water Utility Set Capital Costs in Water Tariff Raise Yoji Matsui *Public Utility Services Center Co., Ltd, Japan*

10:45 Putting Social Franchising to Work In O&M in South Africa Jay Bhagwan *Water Research Commission, South Africa*

11:00 The Policies to Levy Unpaid Water Bills Akihiro Nagai *Osaka Municipal Waterworks Bureau, Japan*

11:15 Efforts by the Service Stations toward Progress an Accessible Service Base Susumu Sugiyama *Bureau of Waterworks, Tokyo Metropolitan Government, Japan*

EMERGING CONTAMINANTS: TREATMENT

R. Hall B
Technical

Chairs: Despo Fatta-Kassinos *Cyprus* and **Pernille Lyngsie Pedersen** *Denmark*

10:30 New Innovative Moving Bed Biofilm Reactor (MBBR) Concept Removes Pharmaceutical from Municipal Wastewater Using Only Bio Caroline Kragelund *Danish Technological Institute, Denmark*

10:45 Sustainable Removal of Pharmaceuticals and Micro Pollutants in Effluent from Municipal WWTPs Elena Torresi *Herning Vand A/S, Denmark*

11:00 Sustainable Treatment Systems for Removal of Pharmaceutical Residues and Other Priority Persistent Substances Christian Baresel *IVL Swedish Environmental Research Institute, Sweden*

11:15 Development of a Treatment Concept Based on Technically Modified Hybrid Filtration Systems for Indirect Potable Reuse Uwe Huebner *Technical University of Munich, Germany*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

WATER EFFICIENCY

R. Hall A
Technical

Chairs: Roland Liemberger *Austria* and **Aaron Burton** *United Kingdom*

13:30 Clarification of The Actual Condition of Water Use Classified by Purpose at Home in Tokyo by Water Amount Measurement Naoki Hoso *Tokyo Metropolitan Government, Japan*

13:45 Analysis of People Behaviour towards Water Conservation (Case Study) Ali Rostamiiranagh *Rural Water & Wastewater Company, Iran*

14:00 The Household Water Consumption of Different Socioeconomic Classes in Selected Communities in Metro Manila, Philippines Roberto Soriano *University of the Philippines - Diliman, Philippines*

14:15 Identifying the Key Motivations for High Water Use in Remote Indigenous Communities Using a Socio-technical Approach Cara Beal *Griffith University, Australia*

COMMUNITY BASED PLANNING

R. Hall B
Technical

Chairs: Pat McCafferty *Australia* and **Shaun Cox** *Australia*

13:30 Challenge for Sustainable Drinking Water Management System in Rural Zone of Burkina Faso Ono Takeshi *Earth and Human Corporation, Japan*

13:45 Developing a New National Framework for Integrated Water Management: a Country Case Study Jong Ho Ahn *Korea Environment Institute, Republic of Korea*

14:00 Community Engagement in River Restoration in Western Mexico Joshua Greene *University of Geneva, Switzerland*

14:15 Planning for Water-Wise Cities in Victoria, Australia - Implementing an Integrated Water Management (IWM) Framework Abby Farmer *Victorian State Government Department of Environment Land Water and Planning, Australia*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

URBAN DRAINAGE

R. Hall A
Technical

Chairs: Mooyoung Han *Republic of Korea* and **Jose Arturo Gleason** *Mexico*

15:45 Damage Forecasting Formula Using Information on Sewer Facilities Tetsujiro Uehara *Tokyo Metropolitan Sewerage Service Corporation, Japan*

16:00 Urban Drainage Research: Quo Vadis? Jeroen Langeveld *TU Delft, Netherlands*

16:15 Quality Based Intelligence for Sewerage Systems Bruno Barillon *SUEZ, France*

16:30 Dilution of Sewage: Impacts on The Urban Wastewater System Geert Dirckx *Aquafin NV, Belgium*

MODELLING FOR RESILIENCE

R. Hall B
Technical

Chairs: Jean Spencer *United Kingdom* and **Chris Sweetapple** *United Kingdom*

15:45 Ecosystem Services from Combined Natural and Engineered Treatment Systems - Understanding the Potential Heather Smith *Cranfield University, United Kingdom*

16:00 Reduce the Impact of Stormwater in the Ancient Part of the City of Antwerp Marjoleine Weemaes *Aquafin nv, Belgium*

16:15 Combining Risk and Futures Analyses to Increase Resilience of Water Utilities in the Short-, Mid- and Long-term Ana Luis *EPAL - Empresa Portuguesa das Águas Livres, Portugal*

16:30 Evaluating Water Supplies Based on Resilience to Climate Change and Ability to Meet Demand in African Cities Danlu Guo *University of Melbourne, Australia*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Monday

Programme

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

POST SDGS FUTURE VISION CALL

Room 101 Workshop

Chair: Hiroshi Yamamura *Japan*

What should be our post-SDG vision towards 2050?

The workshop starts preparing ideas towards post-SDGs. After inputs provided by speakers, participants will engage in dynamic roundtable discussions using apps to brainstorm water-related vision towards 2050. Collected ideas will be shared among IWA members during the Congress and be promoted widely afterwards.

Speakers: Yasuhiro Asada, *National Insutitute of Public Health/Japan-YWP Chair, (JP), Young Water Professional (YWP) (TBC)* and *Reporting from the UN High-Level Political Forum (TBC)*

ENERGY EFFICIENCY & RECOVERY IN WASTEWATER MANAGEMENT

Room 102 Technical

Chairs: Marjolein Weemaes *Belgium* and **Blanca Antizar-Ladislao** *United Kingdom*

10:30 Sustainable Resources Recovery from Wastewater Using Microalgae Larissa Arashiro *Polytechnic University of Catalonia, Spain*

10:45 ANITA™ Mox Deammonification Process for THP Reject Water Hugues Humbert *Veolia, France*

11:00 Knowledge Integration, System / Process Approach and Internal Communication as Key Drivers to Energy Efficiency Pedro Fontes *EPAL S.A., Portugal*

11:15 Demonstration of Hydrogen Production Technology from Sewage Biogas Katsuaki Umezaki *Fukuoka City, Japan*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

HANDLING EMERGING SUBSTANCES IN THE URBAN WATERCYCLE

Room 101 Workshop

Chair: Stefan Kools *Netherlands*

What are the abatement options for the Urban Watercycle?

Emerging substances in the watercycle are an issue of growing concern. When treating water, practitioners want to know how to handle emerging substances to improve water quality. Decision support systems, like Abates and Aquapriori, might be of help in this daunting task. At the same time innovative water treatment technologies are being developed, both on centralized and decentralized scale. In practice many problems are experienced with respect to emerging compounds in the watercycle and data is gathered about removal efficiencies. This workshop will focus on the improvement of existing decision support systems by sharing and implementing knowledge on novel technology based solutions and data from specific cases.

Speakers: Jan Peter van der Hoek, *Waternet (NL)*, Regina Gnirss, *Berliner Wasser Betriebe, Kompetenzcentrum Wasser Berlin, (DE)*, Annemarie van Wezel, *KWR Watercycle Research Institute, (NL)* and Stefan Kools, *KWR Watercycle Research Institute, (NL)*

SULFUR CONVERSIONS

Room 102 Technical

Chairs: Catherine Mulligan *Canada* and **Wilasinee Yoochatchaval** *Thailand*

13:30 Enhanced Performance of Autotrophic Denitrification by Applying Micro-aerobic Condition Ruochen Zhang *Harbin Institude of Technology, China*

13:45 Comparison of the Robustness of the Microbial Selenium Removal Systems for Flue Gas Desulfurization Wastewater Hiroaki Kariyama *Kurita Water Industries LTD., Japan*

14:00 Innovative Biological Desulfurization System for Highly H2S-laden Biogas Germán Buitrón *Universidad Nacional Autonoma de Mexico, Mexico*

14:15 Biocidal Effect of Sulfite on the Enhanced Methane Production from Waste Activated Sludge Feixiang Zan *Hong Kong University of Science and Technology, China*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

THE WAY FORWARD FOR MICROPOLLUTANT REMOVAL AT WWTPS

Room 101 Workshop

Chair: Christian Baresel *Sweden*

How to implement sustainable and effective micropollutant removal at WWTPs?

The workshop looks at the way forward for the implementation of micropollutant removal at WWTPs. Examples from different countries are presented and discussed. The most appropriate way forwards to facilitate sustainable and effective solutions will be discussed in groups.

Speakers: Christian Baresel, *IVL Swedish Environmental Research Institute (SE)* and Michael Cimbritz, *Lund university (SE)*

PRINCIPLES OF DATA MANAGEMENT - HOW COLLECTED DATA CAN BE USEFUL & RELIABLE

Room 102 Workshop

Chair: Kris Villez *Switzerland*

How can one collect data today to produce valued information in the future?

In this workshop, focus is given to (i) meta-data selection and (ii) database structures as important elements of an overarching data management practice.

Speakers: Kris Villez, *Eawag (CH)* and Peter A. Vanrolleghem, *Université Laval (CA)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executice Officer, National Water and Sewerage Corporation, Uganda*

Plenary Room

Monday

Programme

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

INSTRUMENTATION, CONTROL & AUTOMATION IN TREATMENT PROCESSES

Room 601 Technical

Chairs: Gustaf Olsson *Sweden* and **Ichiro Embutsu** *Japan*

10:30 Further Investigation into the Roles of Dissolved Oxygen and Nitrite Accumulation Inside Sludge Flocs in N2O Production Xueming Chen *Technical University of Denmark, Denmark*

10:45 Aeration Testing as a Tool to Improve Oxygen Transfer and Process Optimization in WRRFs: the North American Experience Diego Rosso *University of California, United States*

11:00 Development of a Residence Time Distribution Technique Combined With CWM1 Ruth Stepherson *University of the Witwatersrand, South Africa*

11:15 Demonstration of Remote Monitoring and Controller Tuning Methods for Full-Scale Wastewater Treatment Plant Osamu Yamanaka *Toshiba Corporation, Japan*

WATER MANAGEMENT IN: AGROINDUSTRIES / FOOD INDUSTRIES

Room 604 Technical

Chairs: Ioannis Alexiou *United Kingdom* and **Shuzhao Pei** *China*

10:30 Carbon, Nitrogen and Phosphorus Removal from Slaughtering Wastewater in a Full-scale Alure-type Biological System Shuang Tong *China Meat Research Center, China*

10:45 Treatment of Brewery Wastewater by UASB & CSTR AnMBR Pilots: Performances and Microbial Community Structures Richard Chen *University of Guelph, Canada*

11:00 Waste Milk Treatment With Microalgae Jun Okamura *Okayama University, Japan*

11:15 Treatment of Winery Wastewater Using a Biological Sand Filtration System Gareth Holtman *Cape Peninsula University of Technology, South Africa*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

PRINCIPLES OF ONLINE DATA VALIDATION - AN INTRODUCTION

Room 601 Workshop

Chair: Kris Villez *Switzerland*

How can I evaluate the quality of online sensor data?

In this workshop, the main principles behind state-of-the-art data validation methods are explained and used in set of exercises in Matlab/Octave.

Speakers: Kris Villez *Eawag (CH)* and Hong Quan Le *UGent (BE)*

**Before arriving to the workshop, participants are asked to (1) bring their own laptop to the workshop, (2) download the required software package from https://gitlab.com/krisvillez/datavalidationworkshop (available September 1st, 2018) and (3) follow the instructions in the README.md file of this package*

INDUSTRY ONSITE RECYCLING & ZERO DISCHARGE

Room 604 Technical

Chairs: Josef Lahnsteiner *Austria* and **Haim Cikurel** *Israel*

13:30 Water Recycling Milestone Projects In Indian Refining And Petrochemical Industry Josef Lahnsteiner *VA TECH WABAG, Austria*

13:45 Comparison Of Copper Removal By Replacement/precipitation Reaction Using Ferric And Ferrous Salts Yao-Hung Chen *Tamkang University, Chinese Taipei*

14:00 Brine Concentration For Seawater Desalination Using Counterflow Reverse Osmosis Andrew Bouma *Massachusetts Institute of Technology, United States*

14:15 Green Synthesis Of Nano-sized Iron-bearing Adsorbent With Tea Extract And CEPT Supernatant For Cr(VI) Removal Yi-bo Hu *The University of Hong Kong, China*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

WHAT WATER TECHNOLOGISTS SHOULD KNOW ABOUT ADVANCED PROCESS MODELLING THAT WILL ACCELERATE THEIR DESIGN AND SCALE-UP EFFORTS

Room 601 Workshop

Chair: Ingmar Nopens *Belgium*

How to optimally design and operate current and future technologies for water treatment and resource recovery?

This workshop will show practitioners the current and future value of specific modelling frameworks (kinetic, computational fluid dynamics (CFD), population balance models (PBM)) by means of practical pilot- and full-scale examples. Furthermore, participants will be solicited to think through their current and future process train in order to spot opportunities for innovation and needs for research.

Speakers: Dr. Wim Audenaert, *AM-Team, (BE)*, Dr. Usman Rehman, *AM-Team, (BE)*, Prof. Krist Gernaey, *DTU, (DK)* and Dr. Jim Wicks, *The FluidGroup, (UK)*

More information: biomath.ugent.be/IWA_WWC_tokyo_workshop

WATER RECLAMATION FOR NON-POTABLE REUSE

Room 604 Technical

Chairs: Maria Joao Rosa *Portugal* and **Guihe Tao** *Singapore*

15:45 Removal of Pathogens and Antibiotic Resistance Genes by A Multi Barrier System for Wastewater Reuse Claudio Di Iaconi *Water Research Institute-CNR Italy*

16:00 Bacterial Community Composition in the Recycled Water Distribution System & Their Role in Instability of Water Quality Bal Krishna K C *Western Sydney University, Australia*

16:15 Contribution of Specific Interactions Between Human Enteric Viruses and Wastewater Solids on Virus Removal Mohan Amarasiri *Tohoku University, Japan*

16:30 Presence and Natural Treatment of OMP After 100 Years of Incidental Water Reuse In Agricultural Irrigation Ines Navarro *Universidad Nacional Autonoma de Mexico Mexico*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Plenary Room

Monday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

PROCESS SYNTHESIS, DESIGN AND CONTROL OF NEXT GENERATION RESOURCE RECOVERY & WASTEWATER TREATMENT PLANTS (WWTPS)

Room 605 Workshop

Chair: Gürkan Sin *Denmark*

Can process systems engineering tools help with developing next generation resource recovery & wastewater treatment plants?

The workshop starts with a general introduction to resource recovery paradigm both at industrial and municipal wastewater. Then process synthesis and design tools, namely, decision support tools (DSS) and the superstructure based optimization method and tool for process synthesis/design and plantwide dynamic modeling for benchmarking and control of innovative solutions will be presented using a demo of the tool. The panel will then review and discuss the field and future of wwtp process design and integration.

Speakers: Krist Gernaey *Technical University of Denmark (DK)*, Juan Antoni Baeza *Universitat Autònoma de Barcelona (ES)*, Gürkan Sin *Technical University of Denmark (DK)* and Francesco Fattone *Università Politecnica delle Marche (IT)*

ASSESSING LOG REDUCTION VALUES FOR DRINKING WATER TREATMENT TECHNOLOGIES

Room 606 Workshop

Chair: Jennifer De France *Switzerland*

The WHO Guidelines for Drinking-water Quality (GDWQ) includes summary tables on log reduction values (LRVs) for bacteria, viruses and protozoa, that can be achieved by common water treatment technologies, for both large drinking-water treatment plants as well as at the household level. The need to update these tables has been highlighted. This workshop will brief participants on the work conducted to date on the revision of these treatment tables. The session aims to bring together water utilities, regulators and researchers, to discuss challenges in interpreting the data, identify research needs, opportunities to improve water treatment efficacy studies and feedback will be sought to inform the revision of these tables to increase their usefulness for policy makers and practitioners.

Speakers: Jennifer De France *World Health Organization, (CH)*, Karl Linden *University of Colorado, Boulder, (US)*, David Cunliffe *South Australia Health, (AU)* and Dai Simazaki, *National Institute of Public Health, (JP)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

TOWARDS A NEXT GENERATION OF WATER SYSTEMS AND SERVICES FOR THE CIRCULAR ECONOMY

Room 605 Workshop

Chair: Jos Frijns *Netherlands*

Which technologies, governance arrangements and business models are needed to upscale circular water solutions?

The workshop looks at next generation circular water technologies and discusses the conditions for successful application. After a presentation on the importance of stakeholder engagement through serious gaming and an introduction an exploitation through a circular economy marketplace, a panel discussion sets the scene for further dialogue.

Speakers: Dragan Savic *KWR, (NL)*, Christos Makropoulos *KWR, (NL)*, Jan Hofman *University of Bath, (UK)* and Jean-Pierre Tabuchi *SIAAP, (FR)*

WATER INFRASTRUCTURE ASSET MANAGEMENT & MAINTENANCE SOLUTIONS

Room 606 Technical

Chair: Eddie Tsyrlin *Australia*

13:30 Study on Deterioration Causes of Water Retaining Structures and Effective Maintenance Procedure as a Countermeasure Satoshi Iwatsubo *Nihon Suido Consultants Co., Ltd, Japan*

13:45 Application of Innovative Seismic Design Method to the Purification Facilities on Liquefied Ground Mitsuyasu Tamase *Osaka Municipal Waterworks Bureau, Japan*

14:00 Probabilistic Long Term Simulations for Performance Comparison of Water Network Asset Management Strategies Yves LeGat *IRSTEA, France*

14:15 Implementation of Premeditated Cleaning Work to the Aging Water Pipeline Yuta Yokoyama *Waterworks Bureau, Japan*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

FROM INNOVATION PARTNERSHIPS TO CITIZEN INVOLVEMENT IN THE MODERN WATER SECTOR

Room 605 Workshop

Chair: Anja Wejs *Denmark* and **Carolina Latorre** *Netherlands*

How do the water sector incorporate the needs, concerns and views of various stakeholder groups to move from information to an actual voice in the process?

This workshop presents examples of stakeholder involvement processes at various stages of water service provision; and invites participants to join in an exercise to inspire, be inspired and to involve stakeholders in new ways.

This workshops is co-organised by IWA, IWA Public and Customer Communication Specialist Group, IWA Statistics and Economics Specialist Group, Stockholm International Water Institute (SIWI) and Central Denmark Region.

Speakers: Alejandro Jiménez *Stockholm International Water Institute (SIWI), (SE)*, Anja Wejs *NIRAS/C2C CC, (DK)*, Lars Holmegaard *Lemvig Water Utility, (DK)* and Theodor Popa *Statistics and Economics Specialist Group, (RO)*

INTERNATIONAL APPROACHES TO WATER EFFICIENCY LABELLING

Room 606 Workshop

Chair: Aaron Burton *United Kingdom*

Water efficiency product and service labelling schemes have been shown to be an essential element in effective water demand management strategies. These schemes vary from voluntary to mandatory and ratings to a checkmark based approach. Several workshops were held on labelling at IWA Efficient 2017. Through a panel discussion members working on the range of schemes agreed it would be useful to create a working group to compare labelling approaches and best practice. This workshop will further the discussion between stakeholders and disseminate the results of a report developed by the working sub-group. Labelling schemes have been shown in the USA and Australia to have significant benefits for reducing water and energy use, carbon emissions and reducing household bills. The International Standards Organisation agreed in January 2018 to develop a water labelling standard. This workshop will provide a forum to discuss the policy aspects of labelling linked with wider sustainable water management strategies.

Speakers: Carol Grossman *(AU)*, Chris Philpott *(UK)*, Joanne Chong *UTS (AU)* and Aaron Burton *Waterwise, (UK)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Monday

Programme

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development

Plenary Room

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

CLIMATE CHANGE ADAPTATION THROUGH APPLICATION OF LOW IMPACT DEVELOPMENT STRATEGIES AND GREEN INFRASTRUCTURES

Room 607 Workshop

Chair: Mi-Hyun Park *United States*

How to protect water resources by creating water-wise cities?

Land use and climate change affect the natural hydrology and non-point source pollution transport as manifested by water quality deterioration and imbalance in ecosystem services. This special session is part of the series of special sessions conducted in different conferences and congress including IWA-WWC, IWA-DIPCON and KIWW conducted in October 2016, August 2017, and September 2017, respectively. Discussions will be mainly focused on LID, GI, SUDs, and WSD applications on water-wise cities that promote climate change adaptation.

Speakers: Kim Lee-Hyung, *Kongju National University, (KR)*, Ralf Kunkel, *Research Centre Juelich, (DE)*, Fumiyuki Nakajima, *University of Tokyo, (JP)*, Fiona Napie, *Scottish Environmental Protection Agency (SEPA), (GB)*, Michael Stenstrom, *University of California-Los Angeles, (US)*, Li Xuyong, *Chinese Academy of Sciences, (CN)* and Marla Redillas, *De La Salle University-Manila, (PH)*

UTILITIES STRIVING TOWARDS ENERGY / CARBON NEUTRAL URBAN WATER SERVICES

Room 608 Technical

Chairs: Ying-Chu Chen *Taiwan* and **John Buur Christiansen** *Denmark*

10:30 Development of an Innovative Micro Hydropower System and Field Tests at the Waterworks Facilities in KOBE Yuzo Sawada *DAIKIN Industries LTD, Japan*

10:45 Increasing Energy Efficiency in Water Collection - Practice Examples from Two Metropolitan Areas in Germany: Hamburg and Berlin Mathias Ernst *DVGW-Forschungsstelle TUHH, Germany*

11:00 Achieving Energy Neutrality: Setting a Vision and Empowering Your Staff Tim Constantine *Jacobs*

11:15 Effective Utilization of Unused and Renewable Energy for Greenhouse Gas Emissions Reduction Yuki Honda *Bureau of Waterworks, Tokyo Metropolitan Government, Japan*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

ALGAE, TASTE, ODOR & TOXIN CONTROL

Room 607 Technical

Chairs: Hiroshi Sakai *Japan* and **Abidelfatah Nasse**, *Israel*

13:30 Degradation Mechanism of Two Algal Odorants, -cyclocitral and -ionone During UV Photolysis and UV-chlorination Tae-Kyoung Kim *Seoul National University, Republic of Korea*

13:45 Korea's First Full Scale UV AOP System Put to the Test - Development of a Novel Control Philosophy for UV Based AOPs Taeyoung Choi *Korean National University of Transportation, Republic of Korea*

14:00 Chlorination-UV Process for Decomposition and Detoxification of Microcystin-LR Xinran Zhang *Sun Yat-sen University, China*

14:15 Modelling the Impact of NaOCl on Cell Integrity, Toxin Release and Degradation for Colonial Microcystis in Natural Water Yi-Ting Chiu *National Cheng Kung University, Chinese Taipei*

INTEGRATION OF DECENTRALISED SOLUTIONS & PRIVATE SECTOR STRATEGIES IN CENTRALISED SYSTEMS

Room 608 Technical

Chairs: Robert Renner *United States* and **Christian Loderer** *Germany*

13:30 Trying to Fit a Square Peg in a Round Hole - Integration of a Decentralised Solution Into an Urban Renewal Environment Chris Hertle *GHD, Australia*

13:45 Framework for City-scale Simulation of Sustainable Water Technologies Joseph Hook *University of Sheffield, United Kingdom*

14:00 Research of Capacity Assessment Tool for Private Sector Participation in Water Supply Services Junya Yamada *NJS CO.,LTD, Japan*

14:15 The Danish National Network of Test Sites for Development of Environmental Technology Hasse Milter *Region Zealand, Denmark*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

RISK ASSESSMENT & TOXICOLOGY

Room 607 Technical

Chairs: Andreas Farnleitner *Austria* and **Hiroyuki Katayama** *Japan*

15:45 Flow Behaviour of Perchlorate From a Source Lake to Water Supply Tap Following a Fireworks Display Takahiro Yokoi *Kyoto Municipal Waterworks Bureau, Japan*

16:00 Photodegradation of (E)- and (Z)-Endoxifen by UV Light: Performance, By-products and Toxicity Assessment Eakalak Khan *University of Nevada, United States*

16:15 Toxicological Contributions of Transformation Products Derived from Organophosphorus Pesticides During Chlorination Kei Ohmori *Hokkaido University, Japan*

16:30 Medium Pressure UV Activated Peroxymonosulfate for Ciprofloxacin Degradation: Kinetics, Mechanism and Toxicity Xiu-wei Ao *Tsinghua University, China*

ECONOMIC EVALUATIONS & FINANCIAL INCENTIVES TO SUPPORT COMMUNITY / CITY BENEFITS & OUTCOMES

Room 608 Technical

Chair: Kazuya Naito *Japan*

15:45 Alleviate Water Scarcity in Iran With Virtual Water Trade and Water Market Allocation Mohammad Safaian *Water & Wastewater Company of Semnan Province, Iran*

16:00 A New Way to Measure the Value a Water Company Delivers Francis Pamminger *Yarra Valley Water, Australia*

16:15 The Economic Value of River Restoration: A Global Meta-Analysis Roy Brouwer *The Water Institute, Canada*

16:30 Estimating the Economic and Environmental Impacts of Increased Energy Efficient and Inflated WWS Grid in Brazil Gilvan Guedes *Cedeplar/UFMG, Brazil*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries

Plenary Room

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Monday

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Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

APPROPRIATE TARIFF SETTING AND IMPROVEMENT OF CUSTOMER PERCEPTION TOWARDS SUSTAINABLE WATER SUPPLY

Room 609 Workshop

Chair: Ikuo Milt Mitake *Japan*

What are the keys to achieve the sustainable water supply?

The workshop introduces the works on securing appropriate tariff levels and the measures taken to improve the customer perception in each country. Appropriate tariff settings and stable tariff collection enable reinvesting in aging facilities and finding ways towards sustainable financial management.

Speakers: *American Water Works Association (AWWA), (US)*, *Chinese Taiwan Water Works Association (CTWWA), (CN)*, *Thai Waterworks Association (TWA), (TH)* and *Vietnam Water Supply and Sewerage Association (VWSA), (VN)*

INTERMITTENT WATER SUPPLY (IWS) - A PARADIGM SHIFT IS IMPERATIVE

Room 610 Workshop

Chair: Bambos Charalabous *Cyprus*

How do we sustainably improve IWS conditions which would lead to better level of service and ultimately to continuous water supply?

The workshop looks at the Intermittent Water Supply (IWS) issues in cities around the world which are faced with a range of pressures resulting from population growth, climate change and deterioration of their water systems and the need to improve the level of service to the customers. It aims to provide solutions to the design and control of these systems and practical options for transitioning to 24/7.

Speakers: Prof. Kala Vairavamoorthy, *IWA (NL)*, Prof. S. Mohan, *Indian Institute of Technology (IN)*, Prof. Nemanja Trifunovic, *IHE Delft Institute for Water Education (NL)*, Mahmood Lutaaya, *National Water and Sewerage Corporation of Uganda (UG)* and Water Service Association of Australia *(WSAA) (AU)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

NATURE BASED SOLUTIONS: ENGINEERING APPROACHES TO INTEGRATING GREEN AND GREY INFRASTRUCTURE FROM CATCHMENT TO CONSUMER

Room 609 Workshop

Chair: Florent Chazarenc *France*

How can NBS be implemented into integrated water management strategies?

Green infrastructure can complement and enhance grey infrastructure to provide water supply, improve water quality and manage extreme events. Investment in green infrastructure is increasingly seen as a way to address local (urban and rural) water challenges such as floods, supply shortages, or water quality degradation. Globally, a range of methods are applied at local levels to restore watersheds through reforestation, reducing erosion from arable land or protecting riverine riparian zones, and controlling urban and agricultural diffuse pollution. The workshop will examine and share experiences on the evidence base to integrate green infrastructure into water management.

Speakers: Florent Chazarenc, *Irstea, (FR)*, Prof. Mooyoung Han, *Professor, Seoul National University, (KR)* and Prof. Francesco Fatone, *Università Politecnica delle Marche, (IT)*

BLUE-GREEN INFRASTRUCTURE

Room 610 Technical

Chairs: Stanley Liphadzi *South Africa* and **Jesper Goodley Dannisoee** *Denmark*

13:30 Evaluation On The Long-term Performance Of Infiltration And Non-infiltration Urban Stormwater Green Infrastructures Franz Kevin Geronimo *Kongju National University, Republic of Korea*

13:45 RESCCUE Project (RESilience To Cope With Climate Change In Urban ArEas) - First Results In Barcelona, Bristol And Lisbon Xavier Bernat *CETaqua Water Technology Centre, Spain*

14:00 A Place For SuDS? Assessing The Effectiveness Of Delivering Multifunctional Sustainable Drainage Alastair Chisholm *The Chartered Institution of Water and Environmental Management, United Kingdom*

14:15 Performance Of A Pilot-scale Wall Cascade Constructed Wetland Treating Kitchen Greywater Maurizio Borin *University of Padova, Italy*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

NATURE BASED SOLUTIONS: FINANCIAL AND REGULATORY INCENTIVES FOR GREEN INFRASTRUCTURE IN WATER UTILITIES

Room 609 Workshop

Chair: Katharine Cross *Thailand*

What incentives can enable water utilities to integrate nature based solutions into their operations and planning?

Incentive mechanisms can provide flexibility and creativity to tailor programmes to specific priorities or to particular geographic areas in a community. This workshop focuses on the enabling conditions including the financial and regulatory incentives that can support investment and application of natural/green infrastructure to improve water security and safety.

Speakers: Aparna Sridhar, *The Nature Conservancy (USA)*, Hannah Leckie, *OECD (FR)*, Peter Simpson, *Anglian Water (UK)*, Yang Villa, *Metro Pacific Water (PH)* Rianna Gonzales, *Water Resources Agency (TT)*, Seamus Parker, *Queensland Treasury Corporation (AU)* and Daniel Shemie, *The Nature Conservancy (USA)*

BEST PRACTICE FOR SOCIAL MEDIA IN THE WATER SECTOR

Room 610 Workshop

Chair: Abby Crisostomo *United Kingdom*

How can the water sector effectively use social media for engagement?

This session will share best practice for effective use of social media for engagement in the water sector collected by the Public & Customer Communications SG. Participants will learn how to develop a social media content plan based on a value proposition, a strategic document that helps guide communication plans.

Speakers: Abby Crisostomo, *IWA Public & Customer Communications SG, (UK)* and Dr Peter Prevos, *Coliban Water, (AU)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Plenary Room

Monday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

DISASTER COUNTER-MEASURES AND RISK MANAGEMENT TOWARDS RESILIENT CITIES FORUM *

Room ICR Forum

Chair: Lisa Andrews *Netherlands*

Lessons learned from the Great East Japan Earthquake, The recovery of water and sewerage works

In 2011, a magnitude-9 earthquake struck off the northeast coast of Japan, triggering a massive tsunami of up to 30 metres high, reaching up to 5 kilometers inland (UNEP, 2011). Thousands of people were killed, buildings were destroyed, and millions of tons of waste littered the country. Severe damage to water supply and sewage networks resulted in a succession of issues of service provision to citizens. In this session, we will first learn more about the context of the earthquake. Next, we will hear from leading water professionals in Japan on the emergency response of the waterworks and sewerage works services. Finally, there will be a panel discussion on the key lessons learned from the disaster recovery as take home messages on planning and adapting to disasters in the future.

Speakers: Miyajima Masakatsu, *Kanazawa University (JP)*, Kunihiko Onuma, *Sendai City Waterworks Bureau (JP)*, IshiiHiroyuki, *Ministry of Land, Infrastructure, Transport and Tourism (JP)* and Tsutomu Sakagawa, *Japan Environmental Sanitation Center (JP)*

BENCHMARKING OF WATER UTILITIES

Room 701 Technical

Chairs: Francisco Cubillo González *Spain* and **Peter Dane** *Netherlands*

10:30 Largest WWTP Operated by Suez on the French Market: Emphasizing OPEX, Energy Efficiency and Sludge Disposal Sylvain Donnaz *Suez International, RUEIL-MALMAISON, France*

10:45 Benchmarking Large Town Water Supply Systems with Water Quality Tests and a Consumer Survey In Nepal Ryuji Ogata *Japan International Cooperation Agency, The University of Tokyo, Japan*

11:00 Enhancing the Quality and Improvement of the Waterworks Services Ikuo Mitake *Japan Water Works Association, Japan*

11:15 Evaluating the Indicators Applied to Medium Size Water Supply Systems in Developing Countries Marcelo Libânio *UFMG, Brazil*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

DISASTER COUNTER-MEASURES AND RISK MANAGEMENT TOWARDS RESILIENT CITIES FORUM *

Room ICR Forum

Chair: Lisa Andrews *Netherlands*

Enhancing Water Security

The second session of the Disaster Counter-Measures and Risk Management towards Resilient Cities Forum will focus on ensuring resilience of water supply systems. What are the risks and how can they be absorbed by existing systems? What are ways to prepare to reduce the risks and recover rapidly after a shock? We will hear from leading water professionals on how water supply systems, integrated with other urban water services and sectors, can ensure overall resilience in cities today and in the future. Examples will be illustrated from cities in Japan, Central America, Asia, the U.S., and Europe.

Speakers: Jakob Ellemann-Jensen, *Minister for Environment and Food of Denmark (DK)*, Mark Fletcher, *Arup (UK)* and Hideyuki Aoki, *Bureau of Waterworks,Tokyo Metropolitan Government (JP)*

PLANT & PROCESS PERFORMANCES: HOW CAN WE COMPROMISE CHEMICAL CONSUMPTIONS & WATER QUALITY

Room 701 Technical

Chairs: Norbert Jardin *Germany* and **Hiroyasu Sato** *Japan*

13:30 Multiple Reuse Of Iron Salts In Urban Water Management: A Full-scale Case Study Sirajus Salehin *The University of Queensland, Australia*

13:45 Investigation Of Removal-inactivation Ratio Of Cryptosporidium For QMRA Kazuhiro Ehara *Tokyo Metropolitan Government, Japan*

14:00 Achieving < 50µg/L Effluent Arsenic Concentration With Fixed Bed Granular Ferric Hydroxide Reactor In Hashtrood Of Iran Ali Rostamiiranagh *Rural Water & Wastewater Company, Iran*

14:15 A Simple Strategy To Optimise Alum Application For Phosphate Removal From Municipal Wastewater - Towards Cost Savings Maneesha Ginige *CSIRO, Australia*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

DISASTER COUNTER-MEASURES AND RISK MANAGEMENT TOWARDS RESILIENT CITIES FORUM *

Room ICR Forum

Chair: Lisa Andrews *Netherlands*

Water, Wastewater and Drainage as opportunities to enhance resilience.

The third and last session of the Forum will broaden out on resilience strategies of the whole urban water cycle: water, wastewater and urban drainage services, and how innovative methods of integrated planning may contribute to and enhance the resilience of water services and the city as a whole. The risks to the entire urban water cycle will be considered, along with the capacity to bounce back from a disaster. A systems thinking approach will be explored, with examples from cities in Asia, Australia, and the UK.

Speakers: Masataka Ikeda, *Bureau of Sewerage Tokyo Metropolitan Government (JP)*, John Curtin, *Environmental Agency* and Tony Wong, *CRCWSC (AU)*

** You can find the abstracts for each of the speakers in this session on IWA Connect on the Water Security and Safety Management Specialist Group*

CHEMICAL DRINKING WATER TREATMENT – OPTIMISATION

Room 701 Technical

Chairs: Saburo Matsui *Japan* and **Kenichi Yoshizawa** *Japan*

15:45 Onsite Chlorine Generation For Drinking Water Treatment In Hong Kong Tai On Lee *HKSARG, Hong Kong*

16:00 Combining Ion Exchange And Coagulation/flotation For Enhanced Natural Organic Matter Removal In Drinking Water Treatment Liesbeth Verdickt *De Watergroep, Belgium*

16:15 Study Of Ozone-Based Advanced Oxidation Process Control By Using Bromate Ion Sensor In Japan Kyungju Kim *METAWATER Co., Ltd., Chiba, Japan*

16:30 Preventing Water Crises: The SMART Approach To Effective Treatment Operation Alex Yavich *Optimization Solutions Environmental, LLC, United States*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Monday

Programme

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

APPLICATION OF ICT FOR UTILITY MANAGEMENT

Room 703 Technical

Chair: Peter Prevos *Australia* and **Nobuyuki Kawagoe** *Japan*

10:30 Example of the Utilization of Big Data for Workforce Management in the Call Center of the Tokyo Waterworks Hiroki Ookubo *PUC Co.,Ltd, Japan*

10:45 Ensuring Stable Water Supply by Centralized Administrative Control Over a Large-Scale Water Supply Network Hiroshi Taniguchi *Tokyo Metropolitan Government, Japan*

11:00 ICT Frameworks - Moving Towards Smart Water Networks Klavs Høgh *NIRAS, Denmark*

11:15 Are Urban Water Distribution Systems "Smart"? A Roadmap of R&D Priorities Towards a Digital Transformation of Utilities Andrea Cominola *Technische Universität Berlin, Germany*

SOLVING COMPLEX WATER PROBLEMS - YOUR TOOLKIT I

Room 801 Skills

Chair: Randolf Webb *Switzerland*

What fundamental concepts are key to solving complex water challenges?

The workshop "Solving Complex Water Problems: Your Toolkit" will teach participants how to structure complex problems, prioritize issues, solve high priority components, and then communicate the solution in a structured manner. These learnings will then be applied to solving some of the most complex challenges in the water sector.

Speakers: Tom Mollenkopf *Peter Cullen Water and Environment Trust, (AU)*, Joan Rose, *Michigan State University (USA)*, Shuping Lu, *Xylem (CN)* and Jean Spencer, *Anglian Water Group (UK)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

NON REVENUE WATER MANAGEMENT

Room 703 Technical

Chairs: Roland Liemberger *Austria* and **Ed McCormick** *United States*

13:30 Perpetual Challenge for Zero Non-Revenue Water Rate Toshimichi Sayama *Tokyo Metropolitan Government, Japan*

13:45 Boosting Network Efficiency through Real-time Monitoring Ana Rita Santos *AGS - Administração e Gestão de Sistemas de Salubridade S.A., Portugal*

14:00 Ten Reasons to Avoid Intermittent Water Supply Bambos Charalambous *Hydrocontrol, Cyprus*

14:15 Automatic Detection of Post Meter Leakages Enables Reduced Water Losses and Costs for Urban Residential Water Users Andrea Cominola *Politecnico di Milano, Italy*

SOLVING COMPLEX WATER PROBLEMS - YOUR TOOLKIT II

Room 801 Skills

Chair: Randolf Webb *Switzerland*

What fundamental concepts are key to solving complex water challenges?

The workshop "Solving Complex Water Problems: Your Toolkit" will teach participants how to structure complex problems, prioritize issues, solve high priority components, and then communicate the solution in a structured manner. These learnings will then be applied to solving some of the most complex challenges in the water sector.

Speakers: Tom Mollenkopf *Peter Cullen Water and Environment Trust, (AU)*, Joan Rose, *Michigan State University (USA)*, Shuping Lu, *Xylem (CN)* and Jean Spencer, *Anglian Water Group (UK)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

LEAKAGE DETECTION & SOLUTIONS

Room 703 Technical

Chairs: Stuart Stapely *Australia* and **Yoshiro Abe** *Japan*

15:45 Water Leak Survey Method Using Leak Checker with Time Integration Containing the Noise Recording Function Takeo Sakamoto *TSS Tokyo Water Co., Ltd, Japan*

16:00 Preventive Measures Against Water Leakage in Tokyo Takeshi Okabe *Bureau of Waterworks, Tokyo Metropolitan Government, Japan*

16:15 The Transition from Manual Leakage Management to Automatic Leakage Management Using Multiple Data Sources Kristiane Jensen *Greater Copenhagen Utility, Denmark*

16:30 An Analysis of Water Pipeline Leak Discrimination Models Using Sound Data Yasuhiro Arai *Tokyo Metropolitan University, Japan*

PUBLISH IN STYLE, A HOW TO FOR AUTHORS

Room 801 Skills

Chair: Michelle Herbert *United Kingdom*

How can you make your paper interesting to readers?

Getting your work published is not easy! Ensuring your message comes across is not either. In this session we will be working with you on how to adapt your paper to the desired readership, whilst helping you to understand what a journal reviewer is looking for in a paper.

Speakers: Gustaf Olsson, *Lund University (SE)*, Wolfgang Rauch, *University Innsbruck (AT)* and Zhiguo Yuan, *University of Queensland (AU)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executive Officer, National Water and Sewerage Corporation, Uganda*

Plenary Room

Monday

Programme

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development
Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Coffee Break 09:45 - 10:30

Session 1 07:30 - 12:00 *

Room 802
Training

DELIVERING REGULATORY EXCELLENCE IN WATER ENERGY NEXUS

Organiser: **International Centre of Regulatory Excellence (ICORE)**
Trainer: **Dr. Kevin Parks** *P.Geol. Alberta Energy Regulator, Chief Geologist, Canada*

The water-energy nexus represents the interlinkages between water supply and energy development. Energy systems like hydrocarbons, nuclear energy, hydroelectricity and renewables require water. Their development interacts with and can alter the water systems they depend on. These alterations can diffuse into other sectors like environmental protection, municipal supply, water for recreation, and agriculture. Trade-offs between benefits and risks are made by regulatory agencies acting in the public interest to manage these impacts. This is difficult work. Success demands excellence in water regulation. But what makes an excellent regulator? In short, the attributes are integrity, competence, and empathy. In this seminar, the attributes of regulatory excellence are defined and their application to problems in regulation in the water-energy nexus will be demonstrated. Case studies and practical examples will be presented as well as theory, so participants will take away new ideas and tools to improve their own regulatory frameworks.

Registration is required

Lunch 12:00 - 13:30

Session 2 13:00 - 16:30 *

Room 802
Training

DELIVERING REGULATORY EXCELLENCE IN WATER ENERGY NEXUS

Organiser: **International Centre of Regulatory Excellence (ICORE)**
Trainer: **Dr. Kevin Parks** *P.Geol. Alberta Energy Regulator, Chief Geologist, Canada*

The water-energy nexus represents the interlinkages between water supply and energy development. Energy systems like hydrocarbons, nuclear energy, hydroelectricity and renewables require water. Their development interacts with and can alter the water systems they depend on. These alterations can diffuse into other sectors like environmental protection, municipal supply, water for recreation, and agriculture. Trade-offs between benefits and risks are made by regulatory agencies acting in the public interest to manage these impacts. This is difficult work. Success demands excellence in water regulation. But what makes an excellent regulator? In short, the attributes are integrity, competence, and empathy. In this seminar, the attributes of regulatory excellence are defined and their application to problems in regulation in the water-energy nexus will be demonstrated. Case studies and practical examples will be presented as well as theory, so participants will take away new ideas and tools to improve their own regulatory frameworks.

Registration is required

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries
Silver Mugisha *Chief Executice Officer, National Water and Sewerage Corporation, Uganda*

* Timetable diverge from the main schedule

Monday

Business Forums

Keynote Plenary 09:00 - 09:45

Plenary Room

Strengthening Water-related Disaster Resilience for Sustainable Development

Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Room 01 Business

09:45 – 10:30

METAWATER

Introduction of METAWATER International Business

Presented by: **Ichiro Fukushima**

METAWATER is one of the leading water and environment engineering companies in Japan. This year marks 10th anniversary. We have been designed and installed mechanical and electrical equipment in drinking and wastewater treatment plant to provide any clients with the best solution. Our various service such as EPC as a general contractor, O&M, and privatization, make a contribution to realization of more sustainable social infrastructures.

Room 02 Business

09:45 – 10:30

HITACHI LTD. / HITACHI CONSULTING CORPORATION

Hitachi Water Solutions – A Smarter Holistic Approach to Water Management

Presented by: **Dr. Ricardo Wissmann-Alves**

- Predict and prevent service disruptions
- Gain insights and faster response to incidents
- Improve quality, compliance and management

AICHI TOKEI DENKI CO., LTD.

Electromagnetic Water Meter and Research of Smart Water Meter Capable of Realizing Sophisticated Water Control

Presented by: **Koichi Azuma**

Aichi Tokei Denki has 30 year history in battery driven electromagnetic water meter.

Room 01 Business

10:30 – 11:15

TAISEI KIKO

Development and Maintenance of Waterworks Infrastructure

Presented by: **Tadahiro Yamada** and **Hideto Saito**

TAISEI KIKO has pioneered Japan's water and sewage pipeline maintenance sector. Continuously engaged on the frontier of innovation in product development and maintenance. Retainer glands, various pipe fittings with concept of water pipeline maintenance and quake-resistant products have become essential in Japan.

Room 02 Business

10:30 – 11:15

VEOLIA

Want to Catch Up on Latest Methods and Technologies to Improve Environmental Footprint of Wastewater Treatment?

Presented by: **Theis-Nikolaj Gadegaard**

Major progress allows us to demonstrate an innovative and holistic controlled wastewater system to produce energy and retrieve valuable resources while improving the water treatment and even remove pharmaceuticals and micropollutants with ExenoTM, Aquavista and the concept of Billund BioRefinery.

Room 01 Business

11:15 – 12:00

SWING CORPORATION

Swing's Sustainable Solution for Wastewater Disposal

Presented by: **Ryo Kanda**, **Koji Nagato** and **Nanami Yoshihara**

The City of Kobe and Swing Corporation started distribution of a fertilizer named "Kobe Harvest", which contains chemical grade struvite recovered from municipal sewage. It solves problems at WWTP of Kobe City caused by phosphorus and connects urban and rural areas. The phosphorus is recovered efficiently, one of the valuable resources, from sewage, which might be called "an urban phosphate mine".

Room 02 Business

Room 01 Business

12:15 – 13:00

COSMO KOKI

About Cosmo Koki co. Ltd.

Presented by: **Kensuke Nakazato**

Cosmo Koki co. Ltd. is a company which has specialities.

One of our unique state-of-the-art technologies is the pipe work under presserure.

Using the technology, we do pipe works like bypassing and the valve insertion without shutting water supply.

Room 02 Business

12:00 – 13:30

DENMARK PAVILION

Danish Approach to Energy Use and Recovery in the Water Sector

Presented by: **Danish Minister**, **Water Utilities** and **companies**

Water is energy intensive; accounting 2 and 4 % of the total energy consumption in the world. In Denmark energy efficiency and energy recovery in the water sector has high priority. The Danish approach to energy savings and recovery will be presented followed by concrete examples from major Danish wastewater treatment plants.

Keynote Plenary 17:30 - 18:15

Plenary Room

Water Governance and Institutional Issues in Developing Countries

Silver Mugisha *Chief Executice Officer, National Water and Sewerage Corporation, Uganda*

Monday

Business Forums

Keynote Plenary 09:00 - 09:45

Strengthening Water-related Disaster Resilience for Sustainable Development
Toshio Koike *Director, International Centre for Water Hazard and Risk Management (ICHARM), Japan* and **Yuriko Koike** *Governor of Tokyo, Japan*

Plenary Room

13:30 – 14:15

Room 01
Business

KUBOTA CORPORATION

Earthquake Resistant Ductile Iron Pipe (ERDIP) Projects in USA
Presented by: **Takaaki Kagawa** and **Satoshi Suenaga**

Earthquake Resistant Ductile Iron Pipe (ERDIP) was developed in Japan in 1970's. Its performance has been proven very successful having no documented failure in many big earthquakes for 40 years. From 2013, 9 water agencies in North America installed the ERDIP. In this session, ERDIP projects details in the U.S will be presented.

14:15 – 15:00

Room 01
Business

HITACHI, LTD.

Hitachi's Water treatment
Presented by: **Zhang Tao**, **Yukiko Ichige** and **Shu Tsuda**

Hitachi introduces a variety of water technologies including desalination technologies (high-recovery system, energy saving and environmental friendly system) water reuse and advanced sewage treatment technology(Pegasus). This session provides our experiences and technical features for containerized / solar driven desalination system, nitrogen removal from waste water with retrofit solution for existing facility.

15:45 – 16:30

Room 01
Business

BUREAU OF WATERWORKS, TOKYO METROPOLITAN GOVERNMENT

Efforts and International Projects for Bureau of Waterworks Tokyo Metropolitan Government
Presented by: **Hiroki Kusano**

International cooperation and partnership

BUREAU OF SEWERAGE, TOKYO METROPOLITAN GOVERNMENT

Promotion of technological development in Tokyo Metropolitan Government
Presented by: **Shoko Kudo**

"Technological Development Promotion Plan 2016" and roadmap.

16:30 – 17:15

JAPAN WATER WORKS ASSOCIATION

Setting Water Rates for a Sustainable Water Utility Management Guidebook for Water Rate Revision
Presented by: **Shunichi Sasahara**

JWWA "Guidebook for Water Rate Revision" 2017, establishing water rates and ensuring sound business. A useful guide in other countries.

COSMO KOKI CO., LTD.

About Cosmo Koki co. Ltd.
Presented by: **Kensuke Nakazato**

Cosmo Koki co. Ltd. is a company which has specialities.

One of our unique state-of-the-art technologies is the pipe work under pressure.

Using the technology, we do pipe works like bypassing and the valve insertion without shutting water supply.

13:30 – 14:30

Room 02
Business

ISLE - IWA EMERGING TECHNOLOGIES PROGRAM

Challenges and Opportunities for Deployment of Water Treatment World Wide

Keynote 1: **SMART Assets and Resilient Infrastructure**
Peter Simpson *CEO Anglian Water Group*

Keynote 2: **Recent Technical Advances in Suez Asia's Wide-ranging Operations** **Suez**

Panel Discussion:

Moderated by Isle Utilities that will summarize lessons learned from the Best Practices and case studies and highlights strategies moving forward to accelerate the deployment of global water innovation around the World. Panel member: Anglian Water; Aqualia ; PureTerra Ventures; SWAN; SUEZ

14:30 – 15:30

ISLE - IWA EMERGING TECHNOLOGIES PROGRAM

ISLE-IWA Emerging Technologies Pitches
Speaker: **Benjamin Tam** *Head of Business Unit| Strategic Projects, Isle Utilities*

Hear from entrepreneurs with innovative solutions to water challenges. Pitches with Q&A from a distinguished group of judges (SUEZ, Anglian Water, PureTerra Ventures). Emerging Technologies presenting include: Systea (Italy); Hawle Water Technology Norge (Norway); PowerTech Water (USA); Hydroko (Belgium); Hydro-dis (Australia); Terraheim (Korea)

15:45 – 16:30

Room 02
Business

MEIDENSHA CORPORATION

Introduction to Meidensha Corporation Products & Services (Smart manhole cover and flood monitoring service in urban areas)
Presented by: **Nakajima Mitsuhiro**

- Meidensha Corporation Products & Services Greater than 120 years of experience building power, water and rail infrastructure.
- Cutting-edge technologies of flood-control system for disaster prevention.
- Smart manhole cover and flood monitoring service in urban areas.

16:30 – 17:15

Room 02
Business

AFRICA PAVILION

Keynote Plenary 17:30 - 18:15

Water Governance and Institutional Issues in Developing Countries
Silver Mugisha *Chief Executice Officer, National Water and Sewerage Corporation, Uganda*

Plenary Room

Tuesday, 18 September

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Tuesday Spotlight

Keynote Plenary ▪ International Conference Room

09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6

Keynote speaker:
Claudia Sadoff
Director-General, International Water Management Institute, Colombo, Sri Lanka

Panel moderator:
Akissa Bahri
Professor, National Agricultural Institute, Tunisia

Panel discussion:
Cindy Wallis-Lage
President, Water Business, Black & Veatch, United States
Peter Simpson
CEO, Anglian Water, United Kingdom
Dr. Chien-Hsin Lai
Director-General of Water Resources Agency (WRA), Ministry of Economic Affairs (MOEA), Chinese Taipei
Kathryn Silvester
Planner (Process Engineering), Sydney Water, Australia

17:15 - 17:45

Decision Making With Uncertainty – Challenges Facing Water Professionals

Keynote speaker:
Shinichiro Ohgaki
President Japan Water Research Center (JWRC), Tokyo, Japan

Panel moderator:
Eleanor Allen
CEO, Water for People, United States

Panel discussion:
Paul Reiter
President & CEO, Reiter IWS Ltd, United States
Dragan Savic
CEO, KWR, Netherlands
Adrian Sym
CEO, Alliance for Water Stewardship, United Kingdom
Marion Savill
Executive Director, Affordable Water Ltd and Water Micro Ltd, New Zealand
S. Mohan
Professor Indian Institute of Technology Madras, India

Master Lecture ▪ International Conference Room

10:30 - 12:00

Phosphorus Recovery & Reuse from Wastewater

Chair: Hisao Ohtake *Japan*

How to close the nutrients loop by recycling phosphorus from wastewater streams?

Phosphorus is essential to human life and vital for food production. Increasing attention has been paid to the development of phosphorus refinery technology that can recover phosphorus from secondary resources, including sewage sludge, animal manure and industrial wastes, and use recovered phosphorus products for agricultural and industrial purposes.

This lecture presents full-scale practices of phosphorus recovery and recycling from waste streams and an innovative phosphorus value chain that can extract the maximum value from secondary phosphorus resources and make phosphorus recycling business more attractive and beneficial.

Workshop ▪ International Conference Room

15:45 - 17:15

Toward the Achievement of SDGs Relating to Sanitation and Wastewater Management (SDG 6.2, 6.3) III

Chair: Satoshi Takizawa *Japan*

The Ministry of Land Infrastructure, Transport and Tourism, Japan (MLIT) and the Ministry of Environment (MOE) have been conducting the international activities to support developing countries to achieve the SDGs relating to sanitation, wastewater management (off-site and on-site) and the protection of good water quality (Environment Water Quality Standard) based on experience in Japan.

The Japan International Cooperation Agency (JICA) and Asian Development Bank (ADB) as donor organizations will explain the activities relating to the SDGs. JICA will highlight the importance of capacity development and ADB will explain financing mechanisms for wastewater management and sanitation improvement.

Innovative technologies to achieve of the SDGs will be explained by the private sector.

5th International Water Regulators Forum

10:30 - 17:15

"How can regulatory authorities enable resilience and sustainable development? The answer includes nature"

Hon. Joseph Mwanamvekha (MP) *Minister of Agriculture, Irrigation and Water Development, Malawi*
Hon. Mlungisi Lulu Johnson *Chairman Portfolio Committee on Water and Sanitation, Parliament of the Republic of South Africa*
Dr. Tan Yew Chong *Secretary General, Ministry of Water, Land and Natural Resources, Malaysia*
Tadashige Kawasaki (Mr.) *NARBO Secretariat, Water Resources Engineering Department and Japan Water Agency, Japan*
Bruno Tisserand *EurEau President European federation of national water services, Belgium*
and OTHERS…..

IWA Pavilion

Venture to the IWA Pavilion and Water-Wise Hub to meet IWA staff and learn more about our membership and engagement opportunities.

Over lunch, the Arup & IWA Cities Alive Report – Water for People – will be launched, as well as the new IWA Specialist Group on Non-Sewered Sanitation – a packed agenda! Engage over coffee in the afternoon to witness the MoU signing between IWA and AWS, where IWA executives will be present.

Workshop ▪ Room 606

15:45 - 17:15

Development & Advancements in Non-sewered Sanitation and Faecal Sludge Management

This workshop aims to share practical developments and interventions, as well as new science and innovation, in the area of non-sewered sanitation (NSS); (which includes faecal sludge management (FSM)). There are many people in the world who do not have access to piped or sewered sanitation. NSS and FSM offer the opportunity to leapfrog new systems, approaches, technology and processes to ensure that human waste can be managed through innovation and smartness. The session highlights this innovation and disruption against a rigid paradigm which will ensure many millions who are poorly served and unserved get access to improved sanitation.

Chair:
Dr Stanley Liphadzi
Water Research Commission, South Africa

Panel discussion:
Prof Kala Variavamoorthy
Executive Director – IWA
Mr Jay Bhagwan
Chair of the NSS
Mr Roshan Shrestha
Bill and Melinda Gates Foundation
Assist. Prof Hidenori Harada
Kyoto University, Japan
Mr. Laurent Doyen
SIAPP, France
Dr Miriam Otoo
IWMI, Sri Lanka

Cultural Evening ▪ Kiyosumi Gardens

Enjoy an evening of local culture, food and networking set in an authentic Japanese Garden in the middle of Tokyo.

Kiyosumi Gardens is a place of scenic beauty designated by the Tokyo Metropolitan Government. They are known as the Garden of Exquisite Stones, created by three generations of the Iwasaki family.

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

The Status of and Outlook for Sustainable Development Goal 6

Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

MONITORING & SYSTEM CONTROL

R. Hall A
Technical

Chairs: Gilbert Galjaard *Netherlands* and **Ali Rostamiiranagh** *Iran*

10:30 Development of the Advanced UF Differential Pressure Prediction System Kazunori Tomioka *Toray Industries, Inc., Japan*

10:45 Simple Method for Short-term Predictions and Long-term Estimations of High PH in River Water Ryuta Shirai *Niigata City Waterworks Bureau, Japan*

11:00 A Remote Sensing Method for Interpretation of Potential Key Factors Controlling Algal Growth in Reservoirs Chih-Hua Chang *National Cheng Kung University, Chinese Taipei*

11:15 A Low-resource, Field-based Assay to Detect Human Faecal Pollution in Water Nicole Masters *University of the Sunshine Coast, Australia*

ENABLING TECHOLOGY

R. Hall B
Technical

Chairs: Ana Soares *United Kingdom* and **Shaun Cox** *Australia*

10:30 Applying Deep Reinforcement Learning in Operations of Water Purification Plants Phong Nguyen *Hitachi Ltd. R&D Group, Japan*

10:45 Promotion of Technological Development in Tokyo Metropolitan Government - Technological Development Promotion Plan 2016 - Shoko Kudo *Tokyo Metropolitan Government, Japan*

11:00 Development of a Knowledge Succession Support System for Water Treatment Technology Shigeo Tamura *Japan Water Research Center, Japan*

11:15 Serious Gaming Will Facilitate Sustainable Stormwater Handling in Gothenburg, Sweden Annika Malm *RISE Research Institutes of Sweden, Sweden*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

GLOBAL WATER PATHOGEN PROJECT AND WHO WORKSHOP FOR THE ACTION PLAN ON ANTIMICROBIAL RESISTANCE AND WATER ENVIRONMENT I

R. Hall A
Workshop

Chair: Hiroyuki Katayama *Japan*

What are the effective practices of WASH on Antimicrobial Resistance?

Antimicrobial resistance (AMR) is high in the international agenda. AMR is not only a major threat to the global health, but also our future economies. More than 700,000 people worldwide are already dying each year because of AMR. While the relative role of the environment is unclear at this stage, an important first step is to identify hotspots of AMR spread and human exposure, and explore benefits of actions to cut/reduce the load of AMR agents. This workshop is designed to explore the potential contribution of environments to the spread of AMR agents, facilitating the exchange of information between academics and practitioners, and to aid in identifying WASH related solutions on AMR.

Speakers: Prof. Joan Rose, *Michigan State University (USA)*, Prof. Gertjan Medema, *KWR Water Cycle Research Institute (NL)*, Prof. Nicholas Ashbolt, *University of Alberta (CA)* and Prof. Satoru Suzuki, *Ehime University (JP)*

DIFFUSE POLLUTION

R. Hall B
Technical

Chair: Lee-hyung Kim *Republic of Korea*
and **Tom Armour** *United Kingdom*

13:30 Variability of Bioavailable Phosphorus in Rivers Draining Through Different Land Uses James Mbabazi *Toyohashi University of Technology, Japan*

13:45 Enhancement of the Photocatalytic Activity of TiO2 Doped With Recovered Nd for the Removal of RB5 Under Visible Light Niam Achmad Chusnun *Chung Yuan Christian University, Chinese Taipei*

14:00 Vulnerability of Dutch Drinking Water Sources to Pesticides Annemarie van Wezel *KWR, Netherlands*

14:15 Metabolomic Responses of Estuarine Benthic Amphipod to Heavy Metals in Urban Runoff Relevant Concentrations Miina Yanagihara *The University of Tokyo, Japan*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

GLOBAL WATER PATHOGEN PROJECT AND WHO WORKSHOP FOR THE ACTION PLAN ON ANTIMICROBIAL RESISTANCE AND WATER ENVIRONMENT II

R. Hall A
Workshop

Chair: Jörg Drewes *Germany*

What are the effective practices of WASH on Antimicrobial Resistance?

Antimicrobial resistance (AMR) is high in the international agenda. AMR is not only a major threat to the global health, but also our future economies. More than 700,000 people worldwide are already dying each year because of AMR. While the relative role of the environment is unclear at this stage, an important first step is to identify hotspots of AMR spread and human exposure, and explore benefits of actions to cut/reduce the load of AMR agents. This workshop is designed to explore the potential contribution of environments to the spread of AMR agents, facilitating the exchange of information between academics and practitioners, and to aid in identifying WASH related solutions on AMR.

Speakers: Prof. Regina Sommer, *Medical University of Vienna (AT)*, Dr. Kate Olive Medlicott, *WHO (CH)*, Prof. Gary Toranzaos, *University of Puerto Rico (PR)* and Dr. Daisuke Sano *Tohoku University (JP)*

5TH INTERNATIONAL WATER REGULATORS FORUM

R. Hall B
Forum

Chair: Carolina Latorre *Netherlands*

Keynote: Hon. Minister Rauff Hakeem *Minister of City Planning and Water Supply of Sri Lanka*

Enabling resilience and sustainable development – How can policies help?

Synthesis of the dialogue in the closed sessions incorporated into a conversation with high level decision and policy makers across the cycle. This part of the Forum aims at exploring and enabling collaborative governance amongst key actors to inform effective water-wise policies for resilient and sustainable systems that incorporate nature based solutions into the pool of investments and growth opportunities.

Speakers: Adrian Sym, *The Alliance for Water Stewardship*, Bruno Tisserand, *EurEau*, Pranav S. Joshi, *National Environment Agency (SG)*, Tan Yew Chong, *Ministry of Water, Land and Natural Resources (MY)* and more

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Decision Making With Uncertainty – Challenges Facing Water Professionals

Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

5TH INTERNATIONAL WATER REGULATORS FORUM

Room 101 Forum

Chair: Kelvin Chitumbo *Zambia*

Are existing regulatory models, institutions and professionals ready for the challenge?

In this session we will explore the time dimension and governance aspects relevant to the implementation of NBS for resilient systems, for example - How to balance the time scale requirements of NBS within the business plan of service providers?

Speakers: Dr Kevin Parks, *Alberta Energy Regulator (CA)*, Alberto Biancardi, *Regulatory Authority for Electricity Gas and Water Services (ARERA) (IT)*, *Armando Quazzo, SMAT, Local Operator of Turin, (IT)*, *Jean Spencer, Executive Director, Strategic Growth and Resilience, Anglian Water Services Limited (UK)* and Trevor Bishop, *Water Services Regulation Authority (OFWAT) (UK)*

EMERGING CONTAMINANTS & MICROPLASTICS

Room 102 Technical

Chair: Helmut Kroiss *Austria*

10:30 Pathways and Impacts of Microplastics in Agrosystems and Stream Environments Luca Nizzetto *NIVA, Norway*

10:45 Removing Microplastics on Wastewater Treatment Plants Julia Talvitie *Aalto University, Finland*

11:00 Microplastics Are Vectors for Bacteria from Wastewater into the Aquatic Environment Antonina Kruglova *Aalto University, Finland*

11:15 Environmental Loads and Fate of Microplastics in The Henares Watershed, Central Spain Theresa Schell *IMDEA Water Institute, Alcalá de Henares, Spain*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

5TH INTERNATIONAL WATER REGULATORS FORUM

Room 101 Forum

Chair: Thalita Salgado Fagundes *Brazil*

How to enable sustainable financing and economic resilience of the services?

In this session we will focus on economic regulatory arrangements and citizens, addressing for example - How do we get the incentives right and get citizens / communities interest?

Speakers: Seamus Parker, *Queensland Treasury Corporation (AU)*, José Bento da Rocha, *Energy and Basic Sanitation Agency of the Federal District (ADASA) (BR)*, *Paul Belz, Executive Leader Planning, Planning Group, Queensland Urban Utilities, (AUS); Maria Rafaela de Saldanha Gonçalves Matos, Principal Reseracher LNEC on behalf of The City of Lisbon* and Alan Sutherland, *Water Industry Commission for Scotland (WICS) (UK)*

MICROPLASTICS IN WASTEWATER - WHY DO WE CARE

Room 102 Workshop

Chair: Riku Vahala *Finland*

Should wastewater treatment plants improve their processes to remove microplastics from wastewater?

The workshop looks at wastewater treatment plants as a pathway of microplastics to the environment. The speakers are leading microplastic researchers as well as practitioners around the globe. They will give a short introduction to the topic which is followed by Q&A and panel discussion.

Speakers: Ms. Mari Heinonen, *Helsinki Region Environmental Services Authority, (FI)*, Dr. Julia Talvitie, *Aalto University, (FI)*, Dr. Antonina Kruglova, *Aalto University, (FI)*, Frederic Leusch, *Griffith University, (AU)*, Melinda Sturm, *University of Kansas, (US)*, Annemarie van Wezel, *KWR Watercycle Institute, (NL)* and Ms. Svenja Mintenig, *KWR Watercycle Institute, (NL)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

SUBSURFACE WATER STORAGE: CATALYZER OF WATER REUSE WORLDWIDE

Room 101 Workshop

Chair: Gerard Van den Berg *Netherlands*

How can the subsurface stimulate successful application of water reuse in practice, supporting a practical solution to supply and demand challenges, in terms of volumes, as well as timing and quality?

The successful application of water reuse in practice strongly depends on supply and demand, not only in terms of volumes, but also in timing and quality. The subsurface provides an almost endless volume for temporary storage and has the potential to protect the injected water from quality deterioration.

Speakers: Seunghak Lee, *KIST - Korea Institute of Technology (KR)*, Said Majid Al-Busaidi, *Diam - Public Authourity for Electricity and Water (OM)*, Shafick Adams, *WRC - Water Research Commission (ZA)* and Klaasjan Raat, *KWR Watercycle Research Institute (NL)*

EFFECTS OF MICROPLASTICS IN FRESHWATER AND SOIL ECOSYSTEMS

Room 102 Workshop

Chair: Andreu Rico *Spain*

Are microplastics a real threat for the environment?

In this workshop we will describe the state of the knowledge on the effects of microplastics (MPs) in freshwater and terrestrial organisms, and discuss about major data gaps and research directions to conduct appropriate environmental risks assessments for this class of emerging contaminants.

Speakers: Theresa Schell, *IMDEA Water, (ES)* and Rachel Hurley, *NIVA, (NO)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

The Status of and Outlook for Sustainable Development Goal 6

Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

BIOSOLIDS MANAGEMENT & REUSE

Room 601 Technical

Chairs: Simon Tsang *China* and **Banu Ormeci** *Canada*

10:30 Development of Energy Generating Sludge Incineration System Utilizing Step Grate Stoker Furnace Jiro Usui *Japan Sewage Works Agency, Japan*

10:45 Effect of Climatic Variables on Inactivation of Pathogens in Sludge from UASB Reactors Bruna Lopes *Federal University of Minas Gerais, Brazil*

11:00 Moving Towards Maximum Biosolids Reduction: Ultra-dewatering of Sludge Marlene Choo-Kun *Suez Treatment Infrastructure, France*

11:15 High-resolution Bathymetry Mapping for Operations And Planning of Waste Stabilization Ponds Liah Coggins *The University of Western Australia, Australia*

SEWAGE POLLUTION & TREATMENT

Room 604 Technical

Chairs: Dinesh Kumar Upadhyay *India* and **Soichiro Yatsugi** *Japan*

10:30 Treatment of Polluted Road Runoff by Coagulation/flocculation and Sedimentation Fredrik Nyström Luleå University of Technology, Sweden

10:45 High Rate Filtration for Local Treatment of Combined Sewer Overflow Herman Helness *SINTEF Building and Infrastructure, Norway*

11:00 Occurrence of Enteric Viruses and Microbial Indicators in Tokyo Coastal Area After a CSO Event Takashi Hijikata *The University of Tokyo, Japan*

11:15 Characterization of Bacterial Community in Fecal-source Samples in The Kathmandu Valley, Nepal, Using NGS Rajani Ghaju Shrestha *University of Yamanashi, Japan*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

SUSTAINABLE USE OF WATER BY INDUSTRY

Room 601 Workshop

Chair: Cheryl Davis *United States*

What stakeholder need to collaborate in order for sustainable use of water by industry to be achieved?

The workshop will consist of a combination of the following: (1) Speakers from varying perspectives (e.g., academia, water utilities, and indigenous cultural groups) briefly describing their own experience in relation to sustainable use of water by industry, followed by their suggestions on groups IWA should collaborate with to move further down the path from theory and research to implementation and (2) suggestions from attendees of potential collaborators, including specific groups and associations that IWA should attempt to connect with . The product of the session will be list of specific suggestions, not only in terms of type of organizations IWA should collaborate with, but specific names of organizations and industries and potential contact persons associated with that organization or industry. This input will be used as guidance in development of a future conference on sustainable use of water by industry to be held in Latin America.

Speakers: Maria Concetta Tomei, *Water Research Institute C.N.R. (IT)*, Peter Goethals, *Ghent University (BE)*, Xiachang Wang, *(CN)* and Florent Chazarenc, *Irstea (FR)*

SENSORS & SMART SOLUTIONS

Room 604 Technical

Chairs: Tomoyuki Tanimoto *Japan* and **Marion Savill** *New Zealand*

13:30 Operational Rainfall Monitoring by Microwave Links: a Case Study in Gothenburg, Sweden Jonas Olsson *Swedish Meteorological and Hydrological Institute, Sweden*

13:45 Japan's First Large Scale Efforts on The Model Project of Smart Water Meter Yoshiharu Homma *Bureau of Waterworks,Tokyo Metropolitan Government, Japan*

14:00 Investigation of Applicability of Smart Meter (Multifunctional Meter for Water Supply) to the City of Tokyo Taichi Nozawa *Bureau of Waterworks, Tokyo Metropolitan Government, Japan*

14:15 Multi-objective Network Optimization - Calm Network Aurelie Chazerain *Suez, France*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

WATER REUSE IN THE FOOD-PROCESSING INDUSTRY

Room 601 Workshop

Chair: Renzo Akkerman *Netherlands*

What are challenges and opportunities for water reuse in food processing?

Many technological and managerial challenges for efficient water reuse exist. This workshop presents and discusses several perspectives on this. Emphasis will be on quality monitoring, quality modelling, microbiological safety, as well as the water logistics of reuse. After presenting these different perspectives, the aim is to discuss challenges and opportunities.

Speakers: Renzo Akkerman, *Wageningen University (NL)*, Krist V. Gernaey, *Technical University of Denmark (DK)*, Susanne Knøchel, *University of Copenhagen (DK)* and Klavs M Sørensen, *University of Copenhagen (DK)*

MODELLING FOR DECISION SUPPORT

Room 604 Technical

Chair: Vanessa Speight *United Kingdom* and **Christos Makropoulos** *Netherlands*

15:45 Sharing Pipeline Inspection Data And GISsystem Data:Pipeline Management By Mutual Interchange Of Big Data In The Future Tomoyuki Tanimoto *Bureau of Waterworks, tJapan*

16:00 Understanding Model Complexity And Model Accuracy Through Uncertainty Analysis In Urban Water Modelling Jairo Torres-Matallana *Luxembourg Institute of Science and Technology, Luxembourg*

16:15 Statistical Forecasting Of Norovirus Concentration In Sewage As An Indicator Of Future Incidence Fuminari Miura *The University of Tokyo, Japan*

16:30 A Computational Tool To Facilitate Generation Of Input Data For QMRA Modelling Of A Drinking Water Distribution Network Annika Malm *Chalmers University of Technology, Sweden*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Decision Making With Uncertainty – Challenges Facing Water Professionals

Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

WATER-WISE CITIES I - MULTI-PURPOSE WATER SERVICES, LEVERAGING MULTIPLE BENEFITS ACROSS SECTORS *

Room 605
Workshop

Chair: Jurg Keller *Australia*

What are water management solutions that bring benefits beyond their original mandate?

This session will present the IWA Principles for Water-Wise Cities, highlighting water management solutions that bring benefits beyond the original mandate of utilities to deliver water, ensure drainage, and treat wastewater. In particular, balancing green and grey solutions may deliver multiple benefits across sectors.

Speakers: Jurg Keller, *University Queensland, (AU)*, Rob Skinner, *Monash University, (AU)*, Katie Hammer, *CRC Water Sensitive Cities, (AU)*, Christian Urich, *Monash University, (AU)*, Louise Bingham, *Arup, (UK)* and Tom Armour, *Arup, (UK)*

PEOPLE MANAGEMENT I - BUILDING THE WATER/WASTEWATER WORKFORCE NEEDED TO PROTECT THE PUBLIC AND THE ENVIRONMENT

Room 606
Workshop

Chair: Cheryl Davis *United States*

What are the keys to building a strong effective workforce in water / wastewater utilities?

The session will include four brief presentations on work being done in water/wastewater facilities to build a strong workforce. This will be followed by a discussion of agency initiatives relating to people management, gender equity, diversity, and organizational culture. The final discussion will relate to ways that IWA could provide more support in this area.

Speakers: Cheryl Davis, *CKD Consulting, (US)*, Norifumi Tashiro, *Bureau of Waterworks, Tokyo Metropolitan Government, (JP)*, Katerina Schilling, *IAWD-Danube Water Program, (AT)*, Arlinda Ibrahimllari, *Water Supply and Sewerage Enterprise of Korca, (AL)* and Naoki Ueno, *Bureau of Waterworks, Tokyo Metropolitan Government, (JP)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

WATER-WISE CITIES II: IMPLEMENTING WATER-WISE CITIES AROUND THE WORLD: LESSONS LEARNED *

Room 605
Workshop

Chair: Rob Skinner *Australia*

How can urban water projects deliver on more than basic services?

This session will focus on extracting lessons learned from different cities having implemented water projects that aim to deliver more than basic services, such as improving health, enabling public spaces, engaging citizens and more. In a world cafe format, participants will have the opportunity for two in-depth discussion with representatives from cities amongst Paris, Berlin, Hong Kong, Rio, to name a few.

Speakers: Jean-Pierre Tabuchi, *SIAAP, (FR)*, Regina Gnirss, *Berliner Wasserbetriebe, (DE)*, Patrick LT Chan, *Drainage Services Department, (HK)* Victor Faria, *CEDAE, (BR)*, Tony Wong, *CRC WSC, (AU)*, Jianbin Wang, *CRCWSC, (CN)*, Marina Bergen Jensen, *University of Copenhagen, (DK)*, Brian Hansen, *HOFOR, (DK)* and *Rob Skinner, Monash University, (AU)*

PEOPLE MANAGEMENT II - A VISION FOR CULTURAL CHANGE THROUGH DIVERSITY

Room 606
Workshop

Chair: Sandra Hall *Australia*

How do we drive cultural change by building a diverse industry?

Diverse and inclusive workforces have been shown to drive productivity. This workshop will present practical learnings on how to build better behaviours to support diversity in the workplace. It will also present a model to share content, successes, and challenges to assist individual leaders and participants to drive the cultural change required for success.

Speakers: Rosie Wheen, *WaterAid, (AU)*, Kirsty Blades, *Australian Water Association, (AU)* and Pat McCafferty, *Yarra Valley Water, (AU)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

WATER-WISE CITIES III: WATER FOR SMART LIVEABLE CITIES *

Room 605
Workshop

Chair: Peter Steen Mikkelsen *Denmark*

What are the Smart City trends that will influence the future of water services and management in cities?

This session will introduce the "Smart City" approach, highlighting trends that will influence the future of water services and water management in cities. The session will also discuss the cross-fertilization between smart city and water smart solutions - and liveable cities. How will we meet the objective of healthy and liveable cities by being smarter?

Speakers: Peter Steen Mikkelsen, *DTU, (DK)*, Lykke Leonardsen, City of Copenhagen, (DK), Karsten Arnbjerg-Nielsen, *DTU, (DK)* and Dragan Savic, *KWR, (NL)*

** You can find the abstracts for each of the speakers in this session on IWA Connect on the IWA Water-Wise World Group*

DEVELOPMENT & ADVANCEMENTS IN NON-SEWERED SANITATION & FAECAL SLUDGE MANAGEMENT

Room 606
Workshop

Chair: Stanley Liphadzi *South Africa*

Can we get FSM and NSS on the services offering in a formal manner?

This workshop aims to share practical developments and intervention, as well as new science and innovation in the area of Non-sewered sanitation (which includes Faecal Sludge management). There are many people in world and cities who will not realise piped or sewered sanitation, NSS and FSM offers the opportunity to leapfrog new systems, approaches, technology and processes to ensure that human waste can be management through innovation and smartness. The session highlights this innovation and disruption against a rigid paradigm which will ensure many million poorly served and unserved get access to improved sanitation.

Speakers: Jay Bhagwan, *Water Research Commission (ZA)*, Roshan Shrestha, *Bill and Melinda Gates Foundation (USA)*, Prof Hidenori Harada, *Kyoto University (JP)*, Laurent Doyen, *SEAPP (FR)*, Miriam Otoo, *IWMI (LK)* and Konstantina Velkushanova,*UKZN (ZA)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

MICROBIOLOGY OF WATER DISTRIBUTION SYSTEMS AND BIOFILMS

Room 607 Technical

Chairs: Joan Rose *United States* and **Juan Antonio Baeza** *Spain*

10:30 Biostability Parameters to Improve (Micro)biological Quality During Distribution of Drinking Water from Surface Water Rinnert Schurer *Evides Water Company, Netherlands*

10:45 Assessing the Origin of Bacteria in Tap Water and Distribution System in an Unchlorinated Drinking Water System Ameet Pinto *Northeast University, United States*

11:00 Inactivation of Health-related Microorganisms in Water Using UV Light Emitting Diodes (UV-LEDs) Kumiko Oguma *University of Tokyo, Japan*

11:15 Influence of Natural and Human Factors on Environmental Microbiome in Nepal Sital Uprety *University of Illinois at Urbana Champaign, United States*

RESOURCE RECOVERY I INORGANIC

Room 608 Technical

Chairs: Mona Arnold *Finland* and **Christian Kabbe** *Germany*

10:30 Rubidium Extraction from Seawater Brine by an Integrated Membrane Distillation-Selective Sorption System Saravanamuthu Vigneswaran *University of Technology Sydney, Australia*

10:45 Fractionation of Bivalent Ions by Selectrodialysis for Phosphate Recovery Boudewijn Meesschaert *KU Leuven, Belgium*

11:00 A Continuous Two-phase Bioreactor for Effective Decontamination of Industrial Wastewater and Valuable Component Recovery Maria Concetta Tomei *Water Research Institute - C.N.R., Italy*

11:15 Demonstrated Operation of Process for Recovery of Phosphorus from Digested Sewage Sludge Takao Hagino *Swing Corporation, Fujisawa-shi, Japan*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

NOVEL TECHNOLOGIES

Room 607 Technical

Chairs: Rui Sancho *Portugal* and **Takayuki Ishizaki** *Japan*

13:30 The Trojan Horse: a New Biotechnology for Pesticide Removal at Drinking Water Sand Filters Sanin Musovic *Danish Technological Institute, Denmark*

13:45 Enhanced NOM Removal for Drinking Water Production: a Challenge for a New Coagulant Isabelle Baudin *SUEZ, France*

14:00 Experimental and Theoretical Investigations of the Fate of Organic Compounds Degradation in Advanced Oxidation Systems Daisuke Minakata *Michigan Technological University, Houghton, United States*

14:15 Pilot Study for the Up-Ward Biological Contact Filtration (U-BCF) on the Saigon Water Corporation, Ho Chi Minh City Thach Tran *Saigon Water Corporation*

RESOURCE RECOVERY II ORGANIC COMPOUNDS

Room 608 Technical

Chairs: Takao Murakami *Japan* and **Yongmei Li** *China*

13:30 Optimization of Operating Factors on The Electro-dialytic Recovery of Volatile Fatty Acids from Food Waste Seoktae Kang *Korea Advanced Institute of Science and Technology, Republic of Korea*

13:45 Recovery of Organic Acids from Butyl-acrylate Wastewater with Bipolar-Membrane Electrodialysis (EDBM) Yudong Song *Chinese Research Academy of Environmental Sciences, BChina*

14:00 Mainstream SCEPPHAR Configuration for Integrating P and PHA Recovery in the Water Line of WWTPs Juan Baeza *Universitat Autonoma Barcelona, Spain*

14:15 Start-up of the First Pilot Plant for Short-Cut Enhanced Phosphorus and PHA Recovery from Real Sieved Wastewater Vincenzo Conca *University of Verona, Italy*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

ACTIVATED CARBON

Room 607 Technical

Chairs: Seungkwan Hong *Republic of Korea* and **Zhang Xiaoxiao** *China*

15:45 Leakage of Superfine Activated Carbon Particles through Sand Filter and its Control by the Optimization of Coagulation Yoshifumi Nakazawa *Hokkaido University*

16:00 Micro-grinding Spent Granular Activated Carbon for Reuse: Increasing Adsorption Capacity Long Pan *Hokkaido University, Sapporo, Japan*

16:15 Partial Replenishment of Biologically Activated Carbon Filters to Improve Natural Organic Matter (NOM) Removal Nashita Moona *Chalmers University of Technology, Göteborg, Sweden*

16:30 Verification of New GAC With Considerations of Environmental Impact at Large-scale Advanced Water Treatment Facilities Kenichi Yoshizawa *Bureau of Waterworks, Tokyo Metropolitan Government*

PHYSICO-CHEMICAL TREATMENT ELECTROCHEMISTRY

Room 608 Technical

Chairs: Oskar Modin *Sweden* and **Aiichiro Fujinaga** *Japan*

15:45 Continuous Phenol Removal Using Nano-structured Activated Carbon and Its In-situ Electrochemical Regeneration Orlando Garcia Rodriguez *National University of Singapore, Singapore, Singapore*

16:00 Effect of Filter Media and Inoculation on Manganese Oxidation and Microbial Diversity in Drinking Water Biofilters Inês Breda *Aalborg University, Aalborg, Denmark*

16:15 Joule-heated Anode Enables Fast Electrochemical Advanced Oxidation of Benzoic Acid Shuzhao Pei *Harbin Institute of Technology*

16:30 Electro-Oxidation of Phenol Using BDD-Doped Magnéli-Phase Titanium Suboxides Anode Ma Ming *Harbin Institute of Technology, Harbin, China*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

ACTIVATED SLUDGE PROCESSES

Room 609 Technical

Chairs: Tim Constantine *Canada* and **Claudio Di Iaconi** *Italy*

10:30 The Effect of Temperature and Carbon Sources on Denitrifying Sulfur Conversion-associated EBPR Process Guanghao Chen *The Hong Kong University of Science and Technology, China*

10:45 Direct GHG Emissions from a Full-scale Plug-flow Reactor: Identifying Temporal and Spatial Variations Maite Pijuan *Catalan Inst. for Water Research, Spain*

11:00 Full-scale Demonstrations of NH_4- based Aeration Control Systems for Activated Sludge Process Hiroki Itokawa *Japan Sewage Works Agency, Japan*

11:15 The Effect of Diffused and Surface Aeration on Floc Structure and Abundance of Key Functional Microbes in Full-scale BNR Faizal Bux *Durban University of Technology, Durban*

CLIMATE RESILIENT WATER SAFETY & SECURITY PLANNING

Room 610 Workshop

Chair: Jennifer De France *Switzerland*

How can climate information be integrated into planning to ensure water safety and security?

There is increasing necessity for better management and planning, and for water managers to recognize the impacts of climate change. Water utilities need to improve their ability to identify hazards to manage the climate risks and ensure they maintain service provision. The workshop will demonstrate how climate information can be integrated in water utility planning processes to help identify and reduce risks, i.e. through developing and implementing climate resilient water safety planning.

Speakers: Jennifer de France, *WHO, (CH)*, Philip de Souza, *Emanti Management, (ZA)*, Dai Simazaki, *NIPH, (JP)*, Rui Sancho, *Águas do Algarve, (PT)*, Adam Lovell, *WSSA, (AU)*, Arijanto (Arie) Istandar, *AECOM, (US)*, Katharine Cross, *IWA, (TH)* and Kizito Masinde, *IWA, (KE)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

NUTRIENT REMOVAL I (ANAMMOX)

Room 609 Technical

Chairs: Gurkan Sin *Denmark* and **Eveline Volcke** *Belgium*

13:30 Integrating Anammox With Autotrophic Denitrification Process by Electrochemistry Technology Sen Qiao *Dalian University of Technology, China*

13:45 Effect of Organic Matter on The Performance and N2O Emission of a Granular Sludge Anammox Reactor Mingsheng Jia *Ghent University, Belgium*

14:00 Nitrogen Removal from Dewatering Wastewater from Urban Biogas Power Plant with SBR One Step Anammox Process Takaaki Tokutomi *Kurita Water Industries LTD., Japan*

GROUNDWATER FOR THE FUTURE

Room 610 Workshop

Chair: Anders Bækgaard *Denmark*

Is your groundwater a hidden treasure?

Groundwater is significant to achieve the SDGs, including its sustainable management, use and protection. This workshop highlights the significance of partnerships across sectors, government integration and public participation. The purpose is to inspire and enable water managers to consider the opportunities and solutions groundwater resources offer to achieve the SDGs.

Speakers: Anders Bækgaard, *Congress President Elect, IWA World Water Congress & Exhibition 2020, (DK)*, Ida Holm Olesen, *Head of Section, Region of Southern Denmark, (DK)*, Troels Bjerre, *Senior Project Manager, VCS Denmark, (DK)* and Heidi Barlebo, *Head of Department, Geological Survey of Denmark and Greenland, (DK)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

BIOFILM & GRANULAR SLUDGE PROCESSES

Room 609 Technical

Chair: Kim Soerensen *Switzerland* and **Lian-Shin Lin** *United States*

15:45 Effluent Quality Improvement and Energy Saving of Improved Trickling Filter Systems Hoshikawa Tamari *Japan Sewage Works Agency, Tokyo, Japan*

16:00 Induced Sludge Granulation by a Full-Scale Implementation of WAS Hydrocyclones at The Ejby MoLle WWTP Julian Sandino *CH2M*

16:15 Treatment of Endocrine Disrupting and Pharmaceutical Contaminants Using Aerobic Granular Sludge Technology Jordan Kent *University of Calgary*

16:30 High Salinity Effluents: Aerobic Granular Sludge Or Moving Bed Biofilm Reactors? A Pilot Scale Comparison Celia Maria Castro-Barros *CETAQUA*

GROUNDWATER MANAGEMENT

Room 610 Technical

Chair: Pía Weber *Austria*

15:45 Development Of Water Cycle Risk Assessment And Sound Water Cycle Activities For Practical Solution Of Water Issues Toshio Okazumi *Cabinet Secretariat, Tokyo, Japan*

16:00 Participation In Groundwater Resources: Outlining A Path To Inclusive Development Gabriela Cuadrado-Quesada *UNESCO-IHE, Delft, Netherlands*

16:15 Development Of Groundwater Management Plans In Zambia -- A Contribution To Water Supply Security Marcus Fahle *Bundesanstalt für Geowissenschaften und Rohstoffe (BGR, German Federal Institute for Geosciences and Natural Resources), Hannover , Germany*

16:30 Developing A Scientific Foundation For Large-Scale Groundwater Banking William Stringfellow *University of the Pacific, California, United States*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

Plenary Room

The Status of and Outlook for Sustainable Development Goal 6

Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

PHOSPHORUS RECOVERY & REUSE FROM WASTEWATER

Room ICR
Lecture

Chair: Hisao Ohtake *Japan*

How to close the nutrients loop by recycling phosphorus from wastewater streams?

Phosphorus is essential to human life and vital for food production. Increasing attention has been paid to the development of phosphorus refinery technology that can recover phosphorus from secondary resources, including sewage sludge, animal manure and industrial wastes, and use recovered phosphorus products for agricultural and industrial purposes.

This lecture presents full-scale practices of phosphorus recovery and recycling from waste streams and an innovative phosphorus value chain that can extract the maximum value from secondary phosphorus resources and make phosphorus recycling business more attractive and beneficial.

PIPE FAILURES & CORROSION

Room 701
Technical

Chairs: Bambos Charalabous *Cyprus* and **Joanna Nicodemus** *Philippines*

10:30 Beyond Pipe Failures Data in Japan, Sweden and the Netherlands: Enabling Cross-national Comparison, Analysis and Action Mario Castro Gama *KWR Watercycle Research Institute*

10:45 On The Selection Of Sustainable Pipeline Renewal Shouichiro Nio *Okayama City Waterworks Bureau Japan*

11:00 Improved Network Response in Isolating Burst Water Mains in Gold Coast Water and Waste Using In-House Programming Skills Romer Cantos *City of Gold Coast, Australia*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

TOWARD THE ACHIEVEMENT OF SDGS RELATING TO SANITATION AND WASTEWATER MANAGEMENT (SDG 6.2, 6.3) I, II

Room ICR
Workshop

Chair: Satoshi Takizawa *Japan*

Part I: There is no single UN entity dedicated exclusively to water issues, though over 30 UN organizations carry out water and sanitation programs. UN-Water's role is to coordinate so that the UN family 'delivers as one' in response to water related challenges. Now, UN-Water is preparing. "SDG 6 Synthesis Report on Water and Sanitation" for the UN High-level Political Forum on Sustainable Development (HLPF) where Member States will review SDG 6 in-depth on July 2018.

Part II: In Asian countries, population density is high, and nearly 60% of world population lives in the region. These countries achieved rapid economic growth but faced the problem related drinking water, sanitation and wastewater. In this session, Asian Countries (intended countries; Myanmar, Philippines, Vietnam) will explain the current condition and future activities concerning SDG 6 relating to sanitation and wastewater Management. Japan(Tokyo Metropolitan Government) will report the experience how to promote the sanitation and wastewater treatment systems.

CORROSION CONTROL & PIPE LIFE EXTENSION

Room 701
Technical

Chairs: Victor Faria *Brazil* and **Goro Funahashi** *Japan*

13:30 Efficient Maintenance Method for Water Supply Facilities Focused on the Carbonation of Concrete Masaki Fujita *Sapporo Waterworks Bureau, Japan*

13:45 Corrosion of Reinforcing Steel in Concrete Sewers Yarong Song *Tianjin University and University of Queensland, China*

14:00 Online Monitoring and Control of Drinking Water Corrosion Potential at a Full Scale Plant Flavia Zraick *SUEZ, France*

14:15 The Effect of Steel Segment's Shielding Against Stray Current from DC Railway Systems Masahiko Takahashi *Tokyo Metropolitan Government, Japan*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

TOWARD THE ACHIEVEMENT OF SDGS RELATING TO SANITATION AND WASTEWATER MANAGEMENT (SDG 6.2, 6.3) III

Room ICR
Workshop

Chair: Satoshi Takizawa *Japan*

Ministry of Land Infrastructure, Transport and Tourism, Japan (MLIT) and Ministry of Environment (MOE) have been conducting the international activities to support developing countries to achieve the SDGs relating to sanitation, wastewater management (Off-site and On-site) and protection of good water quality (Environment Water Quality Standard) based on the experience in Japan.

Japan International Cooperation Agency (JICA) and Asian Development Bank (ADB) as a donor organization will explain the activities relating to the SDGs. JICA will highlight the importance of capacity development and ADB will explain financing mechanism for wastewater management and sanitation improvement.

Innovative technologies for achievement of the SDGs will be explained by private sector.

IMPLEMENTING INFRASTRUCTURE ASSET MANAGEMENT: GOOD PRACTICES AND CHALLENGES

Room 701
Workshop

Chair: Helena Alegre *Portugal* and **Takyuki Sawai** *Japan*

How to implement sound infrastructure asset management in water utilities, following the ISO 55x standards?

Implementing sound infrastructure asset management is still a challenge for both private and public water utilities. Sharing implementation experiences, success factors and discussing best practices is essential. Specific objectives include introducing the ISO 5500X style, clarifying what is necessary for successful implementation of AM especially in Japan, discussing what the private companies can do to support utilities not only to implement AM but also to support proper management.

Speakers: Helena Alegre, *LNEC, (PT)*, Boudewijn Neijens, *Copperleaf, (CA)*, João Feliciano, *AGS, (PT))*, Tetsuya Mizutani, *Sendai City, (JP)* and Takayuki Sawai, *NJS (JP)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Plenary Room

Decision Making With Uncertainty – Challenges Facing Water Professionals

Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

PUMPS & ENERGY

Room 703 Technical

Chairs: Santino Di Berardino *Portugal* and **Ryoko Yamamoto-Ikemoto** *Japan*

10:30 Energy Conservation Methods at The Saitama Prefectural Waterworks Shigeharu Toyoda *Saitama Prefectural Public Enterprise Bureau, Japan*

10:45 Water Supply Control System for Smarter Electricity Power Usage Adopting Demand-Response Scheme Hiroshi Koibuchi *Hitachi Ltd., Japan*

11:00 Optimisation of Energy Costs in The Lifecycle of Electro-pump Groups Francisco Braga *EPAL, S.A., Portugal*

11:15 Reduction of Environmental Burden Using Priority Indices to Improve Efficiency of Pumps Kazuo Ogura *Hanshin Water Supply Aouthority, Japan*

WATER COMMUNICATION IN ERA OF FAKE NEWS

Room 801 Skills

Chair: Kari Elisabeth Fagernaes *Norway*

How do our stakeholders perceive the message we are trying to tell them?

The perception that customers have of water influences how they value the services provided by water utilities and other agencies. These perceptions are not always based on facts. This session will focus on how to get the message across successfully from water professionals to stakeholders. During the session, participants will work with different cases, sharing experience and discussing best practises.

Speakers: Kari Elisabeth Fagernaes, *Agency for Water and Wastewater Services (NO)* and Dr Peter Prevos, *Coliban Water (AU)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

DISTRIBUTION NETWORK & ENERGY SAVINGS

Room 703 Technical

Chairs: Sadahiko Itoh *Japan* and **David Duccini** *France*

13:30 Application of Water Supply Operation System to Improve Efficiency of Hydraulic Power Generation Toshihiko Tanaka *Tokyo Metropolitan Government, Tokyo, Japan*

13:45 Total Power Smoothing Based on Wide-Area Coordination of Multiple Sewage Facilities Kenji Fujii *Hitachi, Ltd., Japan*

14:00 Reducing Electricity Consumption by Directly Connected Water Distribution Pump Katsutoshi Koyama *TSS Tokyo Water Co., Ltd, Japan*

14:15 Electric Power Usage in the Future of a Water Distribution System Yasuhiro Arai *Tokyo Metropolitan University, Japan*

CLIMATE SMART UTILITIES: TOOLS FOR RESILIENCE

Room 801 Training

Organiser: IWA & Partners

Trainers: Philip De Souza *Emanti, South Africa* and **Raul Glotzbach** *Programmes Officer, IWA, The Netherlands*

Urban stakeholders have a critical role to play in preserving the integrity of fresh water resources on which they depend on. A disruption in supply of freshwater resources to cities can have significant economic, environmental and health consequences, therefore, improving water security and protecting water resources which cities rely on is a priority.

This training provides an opportunity for water utilities to explore tools that can integrate climate information into their planning processes. Climate change is impacting availability and quality of water worldwide, and utilities need to plan, prepare and adapt to climate risks. The Flood and Drought Portal (http://www.flooddroughtmonitor.com/) provides a package of applications to assist utilities with information and assessment of climate hazards and risks, and support water safety planning approaches.

Registration is required

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

CHEMICAL OPTIMISATION

Room 703 Technical

Chairs: Reynald Bonnard *France* and **Akihiko Terada** *Japan*

15:45 Arsenic Removal to <1 Ug/L By Coprecipitation With In-Situ Generated Fe(III) Precipitates With and Without Pre-Oxidation Arslan Ahmad *KWR Watercycle Research Institute, Netherlands*

16:00 Study of Coagulation Agitation Control for Improving the Efficiency of Rapid Filtration System Kunio Noami *METAWATER Co.,Ltd, Japan*

16:15 Optimization of Powdered Activated Carbon Treatment With Intermediate Chlorinarion, Modifying Channels as Mixing Basins Yoichi Yamamoto *Bureau of Waterworks Tokyo Metropolitan Government, Japan*

16:30 Applications of Stabilized-hypobromite as a Novel Biocide for RO Commercial Plants Hiro Yoshikawa *ORGANO Corporation, Japan*

CLIMATE SMART UTILITIES: TOOLS FOR RESILIENCE

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Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Programme

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Coffee Break 09:45 - 10:30

Session 1 08:30 - 12:00 *

PERFORMANCE ASSESSMENT & IMPROVEMENT IN URBAN WATER SERVICES: THE IWA APPROACH

Room 802
Training

Organiser: **IWA Benchmarking and Performance Assessment Specialist Group**
Trainers: **Elvira Estruch** *Industrial Engineer-Universitat Politècnica de Valencia* and **Enrique Cabrera Rochera** *Professor of Fluid Mechanics-Universitat Politècnica de Valencia (ES)*

Well into the 21st century, the challenges for water services (population growth, increasing water demand, climate change, energy restrictions…) require efficient water services more than ever. Obtaining a clear picture of the performance level, and the possible paths for improvement remain one of the key tools that utility managers may use to face these challenges. Developing and implementing targets to achieve the Sustainable Development Goals will also rely on assessment, and monitoring of key performance indicators (the SDG targets).

Lunch 12:00 - 13:30

Session 2 13:00 - 15:30 *

PERFORMANCE ASSESSMENT & IMPROVEMENT IN URBAN WATER SERVICES: THE IWA APPROACH

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Coffee Break 15:00 - 15:45

Session 3 16:00 - 17:00 *

PERFORMANCE ASSESSMENT & IMPROVEMENT IN URBAN WATER SERVICES: THE IWA APPROACH

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Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

* Timetable diverge from the main schedule

Tuesday

Business Forums

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

09:45 – 10:30
Room 01
Business

METAWATER

Introduction of METAWATER Plant Engineering Business
Presented by: **Noboru Okuda** and **Masao Tabata**

METAWATER is one of the leading water and environment engineering companies in Japan. This year marks 10th anniversary. We have been designed and installed mechanical and electrical equipment in drinking and wastewater treatment plant to provide any clients with the best solution. Our various service such as EPC as a general contractor, O&M, and privatization, make a contribution to realization of more sustainable social infrastructures.

09:45 – 10:30
Room 02
Business

WATERWORKS BUREAU, CITY OF YOKOHAMA

Companies Support Through International Cooperation
Presented by: **Eriko Sawai**

Our initiatives to water related companies to expand their business abroad.

ENVIRONMENTAL PLANNING BUREAU, CITY OF YOKOHAMA

Promotion of International Cooperation by Yokohama City through Public-private Partnership in Sewerage
Presented by: **Noriaki Yokouchi** and **Masayuki Shiga**

Yokohama City, aiming at solving environmental problems in sewage works. The cooperation, currently extending to World cities, collaborates with private companies and assist them.

10:30 – 11:15
Room 01
Business

KUBOTA CORPORATION

Deep Tunnel in Chicago, USA and Pumping Technology for Drainage
Presented by: **Tom Kunetz (WEF)** and **Akiyoshi Kawamura**

Deep tunnel is a way to go for future sewerage network to control CSO & flood and to collect sanitary wastewater efficiently. In this forum, Tom Kunetz, President-Elect WEF tells about Chicago Deep Tunnel followed by KUBOTA's presentation on related solutions.

10:30 – 11:15
Room 02
Business

XYLEM INC

Autonomous Mobile Environmental Monitoring Platforms
Presented by: **Michael Watt**

From autonomous underwater vehicles to vessels of opportunity, hydrological sampling systems have become smaller smarter and more mobile to meet the increasing demands of environmental market.

11:15 – 12:00
Room 01
Business

KURIMOTO, LTD.

KURIMOTO information
Presented by: **Kurimoto, Ltd.**

Kurimoto is a leading manufacturer of high quality custom engineered pipes and valves and with a long history of proven performance and contributed to security and safety of water supply since 1909.

Kurimoto continues to refine technologies.

11:15 – 12:00
Room 02
Business

JFE ENGINEERING CORP.

JFE's Advanced Technology for Water Solutions
Presented by: **Dr. Kaoru Kikuyama**

JFE Engineering is the leading engineering company in Japan and globally, whose strength lies in fields such as water- and environmental solutions. We will share our advanced technologies and solutions in EPC, O&M and business operation.

12:15 – 13:00
Room 01
Business

SWING CORPORATION

Sustainable Solution for Maintaining Water Environment
Presented by: **Tomoki Tateno**, **Shuto Kaneko** and **Sumiyo Sato**

Methane fermentation technologies and various installation results.

Features

- KUROBE PFI Biomass Recycling Plant: Convert coffee residue and sewage sludge into fuel and compost
- KANDASTU Methane Fermentation Facility: Largest-scale kitchen waste biomass recycling plant in Japan

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12:00 – 13:30
Room 02
Business

CONFEDERATION OF DANISH INDUSTRY

Smart Solutions to Reduce Water Leakage
Presented by: **Danish Water Utilities** and
Water professionals from companies

In many parts of the world, the water resources are over exploited, which makes it difficult to fulfil the drinking water demands on quantity and quality. At the same time the leakage of water in many utilities are high. New developments in leakage management using smart data will be presented.

Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Tuesday

Business Forums

Keynote Plenary 09:00 - 09:45

The Status of and Outlook for Sustainable Development Goal 6
Claudia Sadoff *Director-General, International Water Management Institute, Sri Lanka*

Plenary Room

13:30 – 14:15
Room 01 Business

COSMO KOKI CO., LTD.

About Cosmo Koki co. Ltd.
Presented by: **Kensuke Nakazato**

Cosmo Koki Co. Ltd. is a company which has specialities.

One of our unique state-of-the-art technologies is the pipe work under presserure.

Using the technology, we do pipe works like bypassing and the valve insertion without shutting water supply.

14:15 – 15:00
Room 01 Business

MEIDENSHA CORPORATION

Meidensha Corporation Products & Services (Ceramic Flat Sheet Membrane)
Presented by: **Terutake Niwa**

1. Introduction Products & Services. More than 120 years of experience

2. Cutting-edge technologies in advanced water treatment systems.

Ceramic flat sheet membrane technology allows for water purification and resource recovery for many industries.

15:45 – 16:30
Room 01 Business

NIHON SUIDO CONSULTANTS CO., LTD.

Innovative Technology of Maintenance and Management System for Water Supply and Sewerage
Presented by: **Tatsuya Tobe**

Real-time Flood Management System, Inflow and Infiltration Survey Sewerage, Water Resource Management by Water Circulation Model, Reduction of Non-Revenue Water.

FUJI TECOM INC.

Water Leak Prevention Equipment
Presented by: **Masato Shimotsuya**
- Water Leak Detection Equipment
- Training Center (Equipment)
- Equipment Supply, All Over the World

16:30 – 17:15

NAGAOKA INTERNATIONAL CORPORATION

Nagaoka Business to Effectively Utilize the Finite Water Resource
Presented by: **Yasuhisa Umezu**

Unique and environmentally-friendly water intake and water treatment technologies.

Highly acknowledged with rich-experience and various application records in Japan and expanding business into China, Malaysia, Vietnam, Thailand.

13:30 – 14:30
Room 02 Business

IWA - ISLE EMERGING TECHNOLOGIES PROGRAM

Challenges and Solutions in Water Recycling from Industrial Wastewater Stream

Keynote 1: **AnMBR Technology: Boosting Circular Economy in Sewage Treatment**
Jose Ramon Vazquez Padin
Area Manager at the Department of Innovation of FCC Aqualia SA

Keynote 2: **What Makes a Technology Attractive in the Eyes of an Investor Maarten Ter Keurst**
Director of Investments, PureTerra Ventures

Panel Discussion:

Panel Discussion by Isle Utilities, summarizing lessons learned from Best Practices and case studies and highlights strategies for innovative solutions in water recycling from industrial waste water stream. Panel member: Aqualia ; PureTerra Ventures; Isle Utilities; Suez.

14:30 – 15:30

IWA - ISLE EMERGING TECHNOLOGIES PROGRAM

IWA-ISLE Emerging Technologies Pitches

Speaker: **Benjamin Tam** *Head of Business Unit| Strategic Projects, Isle Utilities*

Hear from entrepreneurs with innovative (waste) water solutions. Pitches with Q&A from a distinguished group of judges (BASF, Aqualia, PureTerra Ventures). Emerging Technologies include: Blue Foot Membranes (Belgium); LG Sonic (Netherlands) Luminultra (Australia); Carex (Sweden); Aquafortus (New Zealand);

15:45 – 16:30
Room 02 Business

NETHERLANDS PAVILION

United Dutch Water Expertise – Integrated Solutions for Urban Resilience and a Circular Economy
Presented by: **Netherlands Water Partnership**

What do you do when you live in a small and densely populated country, where three major rivers flow out into the sea? You become creative, you organize, combine, invent and cooperate to make the most of your resources and space. Hallmark of Dutch water expertise is the integrated approach: water safety, water provision and infrastructure combined with the needs of people, planet and profit.

Join the Business Forum and learn more about our wide range of expertise!

16:30 – 17:15
Room 02 Business

NUKOTE COATING SYSTEM

Robotic Applications in Pipe Rehabilitations
Presented by: **Michael Osborne**

360 Ringtech® Robotics are capable to consistently apply plural component elastomeric polyureas, polyurethanes and ancillary products required, for use as liners in the rehabilitation and new construction of liquid gathering, storage and distribution systems. Our linings system provides a competitive alternative to CIPP, PVC, Rubber and other slip lining technologies.

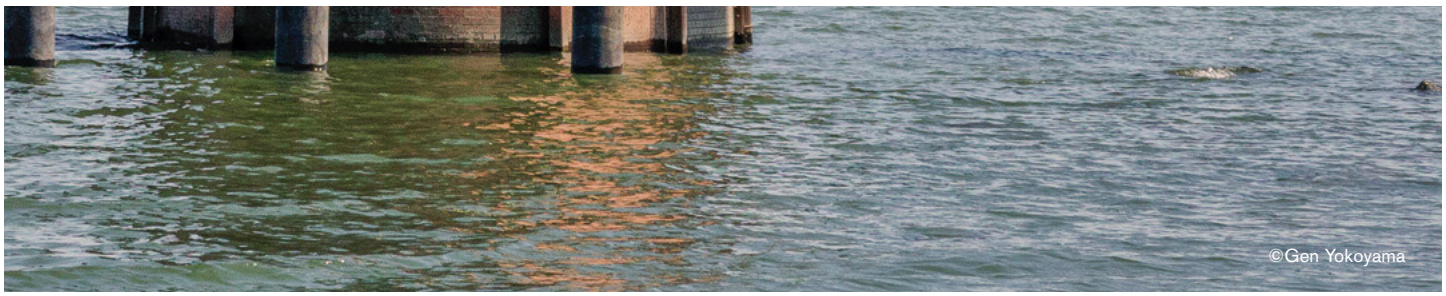
Keynote Plenary 17:30 - 18:15

Decision Making With Uncertainty – Challenges Facing Water Professionals
Shinichiro Ohgaki *President of Japan Water Research Center (JWRC)*

Plenary Room

Wednesday, 19 September

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT



Wednesday Spotlight

Keynote Plenary ▪ International Conference Room

09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives

Keynote speakers:

Sudhir Murthy
CEO, NEWhub, United States

Mark van Loosdrecht
Professor in Environmental Biotechnology, Delft University of Technology, Netherlands

Panel moderator:

Paul Brown
President & CEO, Paul Redvers Brown Inc., United States

Panel discussion:

Harry Seah
Chief Technology Officer, PUB, Singapore
Jonathan Clement
Global Technology and Business Development Officer, Nanostone Water, United States
Wim Drossaert
CEO, Dunea, Netherlands
Cathy Qing Hu
Professor, Southern University of Science and Technology, China

17:15 - 17:45

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities

Keynote speaker:

Rebekah Eggers
Global Water Leader, WW IoT, Energy, Environment, & Utilities Business, IBM, United States

Panel moderator:

Will Sarni
Founder and CEO, Water Foundry, LLC, United States

Panel discussion:

Patrick Decker
President & CEO, Xylem Inc., United States
Eveline Volke
Professor, Ghent University, Belgium
Avishek Choudhury
Water Industry Advisor, Tata Consultancy Services, India
Arlinda Ibrahimllari
Technical Director, Sanitation Department in UKKO Joint Stock Company, Albania

IWA Pavilion

IWA Report Launch

12:50 - 13:10

Manual on Human Rights to Water and Sanitation for Practitioners in French

IWA Stand # 115 @ Exhibition Corner

Chair: Carolina Latorre - *co-author and IWA Water Policy and Regulation lead.*

Speakers: Kala Vairavamoorthy *IWA ED;* Robert Bos: *Leading author and IWA Senior advisor*; Ebah Basile, *General Manager SODECI Water Company Ivory Coast*; Sylvain Usher, *Executive Director, African Water Association (AfWA) Ivory Coast.*

15:10 - 15:40

The 21st Century Digital Water Utility: Creating Abundance

by IWA and Xylem

"Digital solutions provide a much-needed response to smarter and more effective water strategies for utilities and businesses", states Kala Vairavamoorthy, IWA Executive Director. "Without vastly improved data and analytics, public institutions, businesses and society will struggle or fail to meet 21st century demands for water."

Wednesday promises to deliver more activities with and for our members! Join the launch of IWA's Action Agenda for Basin Connected Cities at the Water-Wise Hub, a strategic agenda for connecting cities with their basins. In the afternoon, grab a coffee at the Pavilion with IWA and Xylem leaders highlighting the new Digital Water Report.

Master Lecture ▪ International Conference Room

10:30 - 12:00

Integrating Nature-Based Solutions for Water in Urban Water Infrastructure

Chair: Tony Wong *Australia*

How to best integrate natural-based solutions with conventional urban water infrastructure to enhance the water resilience, livability and sustainability of cities and towns?

In March 2018, the UN World Water Development on Nature-based Solutions for Water was launched. During this session, Prof. Wong will provide an overview of the scientific developments that underpin the adoption of nature-based solutions for water, from the understanding of water-related natural processes and ecosystem services.

Nature-based solutions encompass the full spectrum of activities in enhancing ecosystem services; from nature conservation to biomimicry. Nature conservation and restoration include regional planning for the protection of natural assets, the restoration of degraded environments such as mangroves and wetlands, reforestation of watershed and the rehabilitation of degraded waterways. Within an urban context, nature-based solutions include the combination of biomimicry through constructed systems embedded into the built form.

Science to Practice Forum ▪ Room 101

13:30 - 17:15

Science and technology development is needs-driven and existing potentially disruptive technologies could help to accelerate innovation and adoption activities in the water sector. The main purpose of the Science to Practice Forum is to identify mechanisms and processes on translating science and technology into practice. Through this forum we would like to identify elements during this translation process such as challenges and barriers, necessary elements to lead to success, lessons learned, etc.

We will also exchange ideas on how science and technology can be translated into practices by different organizations and individuals from different segments (academia, utility, government, etc.) and in different areas and regions. The forum aims to be summarized into a report on the translation of science into practice with recommendations in terms of a set of general and specific challenges/barriers we might face (and how to overcome them), what key factors lead to success, etc. The main audience of this forum will be researchers, utilities, consultancy and all other individuals and organizations interested in translating science into practice.

Exhibition

15:45 - 17:15

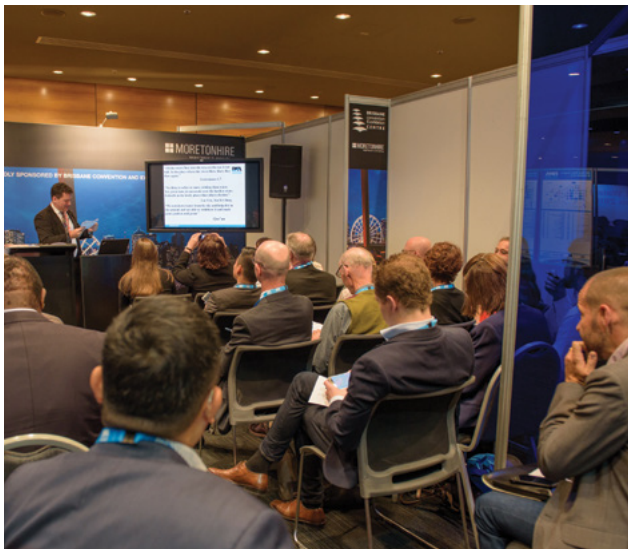
Business Forum - Water Management in Megacities II

Chair: Satoshi Takizawa *Japan*

Organised by: *Japan Society on Water Environment, Japan Water Works Association, Japan Sewerage Works Association, Bureau of Waterworks and Bureau of Sewerage, Tokyo Metropolitan Government*

Cooperated by: *Japan International Cooperation Agency (JICA)*

Megacities of developed countries that experienced rapid urbanization and population growth, and megacities of metropoles that are expected to be future megacities, will share knowledge on various issues of water and sewerage. We intend to discuss issues and responses that future megacities of developing countries face, and contribute to implementing the efficiency of comprehensive water management.



Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives — Plenary Room

Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

WASTEWATER TREATMENT PATHOGENS & ANTIBIOTIC RESISTANCE

R. Hall A Technical

Chairs: Daisuke Sano *Japan* and **Hisashi Satoh** *Japan*

10:30 Bacteria and Parasite Eggs Exposure: a Case Study in a Vietnamese Community With Excreta Use for Agriculture Hidenori Harada *Kyoto University, Japan*

10:45 Occurrence and Reduction of Indigenous F-specific RNA Bacteriophage Genotypes at a Wastewater Treatment Plant Suntae Lee *Public Works Research Institute, Japan*

11:00 Discharge of Antibiotic Resistant Bacteria and Resistance Genes By Wastewater Treatment Plants Abidelfatah Nasser *Water Quality Research Laboratory, Ministry of Health, Israel*

11:15 Understanding the Occurrence of Antimicrobial Resistance in Water Systems and Strategies for its Reduction Sophie Courtois *SUEZ, France*

WATER QUALITY & RESTORATION

R. Hall B Technical

Chairs: Lee Pitcher *United Kingdom* and **Paul Seeley** *United Kingdom*

10:30 City of Osaka Water Quality Improvement Initiatives for Dotonbori River and Higashiyokobori River Ayako Yoshida *Osaka City, Japan*

10:45 Study on the Analysis of Factors of Algal Occurrence in Tributaries for Evaluation of the Influence on the Nakdong River Kyeong Hwan Kang *Pusan National University*

11:00 A Basin Management Program to Improve Water Quality in Rivers Based on an Environmental Water Quality Predictive Model Guillermo Calvo-Brenes *Instituto Tecnologico de Costa Rica, Cartago, Costa Rica*

11:15 Suppression of Nutrient Release in Eutrophic Sediment by Sediment Microbial Fuel Cells Keiichi Kubota *Gunma University*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

WATER SAFETY PLANS & RISK ASSESSMENT

R. Hall A Technical

Chairs: Marion Savill *New Zealand* and **Terrence Thompson** *Philippines*

13:30 Water Safety Plans at EPAL's Water Supply System - Risk Assessment of Pollution Events in the Surface Sources Rui Carneiro *EPAL, Portugal*

13:45 Implementation of HACCP in Mahasawat Water Treatment Plant, Thailand for Safety Water Worawit Whangchenchom *Metropolitan Waterworks Authority, Thailand*

14:00 Common Themes Contributing to Recent Drinking Water Disease Outbreaks in Affluent Nations Steve Hrudey *University of Alberta, Canada*

14:15 The QMRAcatch Approach: Using Pathogen, Indicator and Source Tracking Data for Long-Term Water Safety Planning Andreas Farnleitner *Karl Landsteiner University of Health Sciences, Austria*

ENVIRONMENTAL IMPACTS ON DISCHARGE EFFLUENT

R. Hall B Technical

Chairs: Rajeev Goel *Canada* and **Akiko Miya** *Japan*

13:30 Health-related Inactivation Requirements for UV-irradiated Wastewater Effluents Discharged into Recreational Surface Water Regina Sommer *Medical University Vienna, Austria*

13:45 The Physicochemical and Microbiological Impacts of Treated Wastewater on a Receiving Stream in South Africa Nico van Blerk *ERWAT, South Africa*

14:00 Case Studies of Toxicity Reduction Evaluation / Toxicity Identification Evaluation on Industrial Effluent in Japan Haruna Watanabe *National Institute for Environmental Studies, Japan*

14:15 Assessment of Rainfall-derived Infiltration and Inflow in Urban Sewer Systems by Adaptive Methods Maryam Beheshti *Norwegian University of Science and Technology (NTNU), Norway*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

DISASTERS & RESPONSE

R. Hall A Technical

Chairs: Arslan Ahmad *Netherlands* and **Maria João Benoliel** *Portugal*

15:45 Development of System that Promptly Monitors the Water Supply to the Government Agencies Immediately After Earthquake Takayuki Kawado *Bureau of Waterworks, Tokyo Metropolitan Government, Japan*

16:00 Implementation Model of Disaster Prevention Drill Utilizing PDCA Cycle in Capital of Tokyo Akihiko Takei *Tokyo Metropolitan Government, Japan*

16:15 Are We Prepared? Development and Assessment of Emergency Water Supply Preparation Planning Lisa Bross *Universität der Bundeswehr, Germany*

16:30 Emergency Response in a Drinking Water System Operating Without SCDA and Mobile Communications - Case Study: West Region Rui Sancho *Águas do Algarve, SA, Portugal*

WATER RESOURCES & WATER QUALITY

R. Hall B Technical

Chairs: Yoshiro Ono *Japan* and **Tahri Khalid** *Morocco*

15:45 Construction of an Effective and Efficient Pesticide Examination System Toshiaki Ueno *Bureau of Waterworks,Tokyo Metropolitan Government, Japan*

16:00 From Secondary Effluent to IPR Quality Using Soil Aquifer Treatment System Roy Elkayam *The Hebrew University of Jerusalem, Israel*

16:15 Study on the Effluent BOD Target for the Six WWTPs Along the Tama River to Meet EQS, Hiroko Asakura *Tokyo Metropolitan Government, Japan*

16:30 Evaluating the Influence of Raw Water Quality on Treatment Cost in Developing Countries, Marcelo Libânio *Federal University of Minas Gerais, Brazil*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities — Plenary Room

Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

INNOVATORS WORKSHOP

Room 101
Workshop

Chairs: Mark van Loosdrecht *Netherlands*
and **Sudhir Murthy** *United States*

How do we expand programming and create bridges between innovators within IWA?

In order for IWA to improve service to all stakeholder groups involved in innovation activities, this workshop will gather innovators from different IWA stakeholder profession groups (Academia, Utilities, Investors, Manufacturing, Regulators and Consulting/AE firms) to discuss how to develop approaches for more rapid dispersion of innovations, how to engage innovators and create bridges for innovators to share and collaborate across groups. Each group will expand upon the latest innovations that are improving their practice with bridge implications to others.

The workshop will have two panels, panel one lays the stage (Jonathan Clement, *(NL)*, Trevor Bishop, *(UK)*, Peter Vanrolleghem, *(CAN)*, Mark van Loosdrecht, *(NL)*) and the second panel further elaborate and build the programming (Daniel Nolasco, *(ARG)*, Paul O'Callaghan, *(IRL)*, Karen Rouse, *(AUS)*, Bo Højris, *(DK)*).

WATER REUSE OPPORTUNITIES & CHALLENGES TO AUGMENT NON-POTABLE & POTABLE WATER SUPPLIES

Room 102
Workshop

Chair: Jörg Drewes *Germany*

What are the current trends and developments in both non-potable and potable water reuse?

This session features four industry leaders providing overviews on recent trends in both non-potable and potable reuse. David Cunliffe will speak about the new WHO Potable Reuse Guidelines. Harry Seah will speak about the evolution of treatment barriers and future plans of Singapore's New Water concept. Joan Rose will discuss the need to redefine secondary treatment as an appropriate barrier against emerging microbial contaminants. Finally, Jörg E. Drewes will feature recent regulatory trends and frameworks for potable water reuse in California.

Speakers: David Cunliffe, *South Australia Health, (AU)*, Harry Seah, *Public Utility Board, (SG)*, Joan Rose, *Michigan State University, (US)* and Jörg E. Drewes, *Technical University of Munich, (DE)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

SCIENCE TO PRACTICE FORUM

Room 101
Forum

Chairs: Jurg Keller *Australia*, **Mark van Loosdrecht** *Netherlands*, **Hong Li** *Netherlands* and **Kim Sorensen** *Switzerland*

How to translate science into practice?

The main purpose of the Science to Practice forum is to identify mechanisms and approaches that enable uptake of scientific knowledge and technology expertise into practically applied innovation. Through this forum we would like to identify elements during this translation process such as: main challenges and barriers, processes that could lead to success, lessons learned from failures, and experiences to translate success into other expertise areas and regions. This session will highlight current or potential approaches being explored to address key industry needs or innovation hot-spots, which include experiences from the invited speakers of Mark van Loosdrecht, *(NL)*, Wen-Tso Liu, *(USA)*, Qing Hu, *(CHN)*, Francois Gouws, *(AUS)*,David Bergmann, *(AUS)*.

EXPERIENCE AND CHALLENGES OF NON-POTABLE REUSE IN EAST ASIAN MEGACITIES

Room 102
Workshop

Chairs: Jörg Drewes *Germany* and **Hiroaki Tanaka** *Japan*

What are challenges to non-potable water reuse in megacities?

Non-potable reuse has contributed to sustainability and now preparation for disasters. Centralized recycle with municipal reclaimed water and decentralized recycle in building scale, and river flow augmentation have attracted attention in East Asian megacities. The future challenges will be integration of water, energy, and material recovery will be discussed.

Speakers: Dr. Seiichiro Okamoto, *Japan Sewage Agency (JP)*, Mr. Kinji Yamada, *Tokyo Metropolitan Government (JP)*, Prof. HU Hong-Ying, *Tsinghua University (CN)* and Dr. CUI Yong, *Beijing Boda Water Co., Ltd. (CN)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

SCIENCE TO PRACTICE FORUM

Room 101
Forum

Chairs: Jurg Keller *Australia*, **Mark van Loosdrecht** *Netherlands*, **Hong Li** *Netherlands* and **Kim Sorensen** *Switzerland*

How to translate science into practice?

The second part of the Science to Practice forum will showcase a range of examples on approaches how to establish collaborations between scientists/ technology developers and end-users in practice to enable science-to-practice translation and implementation. These examples are ranging from country-wide R&D organizations over local collaboration initiatives to individuals with particular relevant experience, and covering different segments with a 'World-Café' style discussion in parallel. Contributors to this session are: Dhesigen Naidoo, *(ZA)*, Tony Wong, *(AUS)*, Olaf van der Kolk, *(NL)*, Jurg Keller, *(AUS)*, Christian Loderer, *(DE)*, Kim Soerensen, *(CH)*, Jose Vazquez, *(ES)*, Ana Soares, *(UK)*, and Mark van Loosdrecht, *(NL)*.

WATER REUSE FOR EMERGING ECONOMIES: LESSONS LEARNED FROM DISTRIBUTED WATER REUSE IN JAPAN

Room 102
Workshop

Chair: Olivier Lefebvre *Singapore*

How to adapt the best water reuse practices for developing economies?

Learning from the experience of IWA WWC's host country Japan in decentralized water reuse for non-potable applications, the best practices and minimum set of guidelines to ensure trust and reliability of a sustainable water reuse scheme applicable for developing countries will be discussed. The format will consist of four presentations (15 minutes each) followed by a 30-min panel discussion.

Speakers: Jörg E. Drewes, *Technical University of Munich, (DE)*, Akiça Bahri, *National Agricultural Institute of Tunisia, (TN)*, Olivier Lefebvre, *National University of Singapore, (SG)* and David Cunliffe, *South Australian Department of Health, (AU)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

CLIMATE CHANGE IMPACTS ON SOURCE WATER QUALITY AND URBAN WATER SUPPLY SYSTEMS

Room 601 Workshop

Chair: Satoshi Takizawa *Japan*

How will climate change influence water quality and water supply?

Climate change influences source water quality, especially characteristics and abundance of natural organic matter (NOM) due to vegetation change. Experts from around the world will deliver the latest research outcomes on this issue and discuss about how to adapt the urban water supply systems to changing source water quality.

Speakers: Kenneth Persson, *Lund University (SE)*, Jean-Philippe Croue, *Curtin University (AU)*, Zdravka Do Quang, *Suez (FR)* and Sadahiko Ito, *Kyoto University (JP)*

URBAN WATER SECURITY: A GLOBAL NETWORK, LOCAL SOLUTIONS

Room 604 Workshop

Chair: Stuart White *Australia*

How can the water sector best respond to drought?

Urban water security and the response to drought are increasingly important issues for cities and towns. California, Sao Paulo, Capetown and the Australian Millennium Drought provide powerful examples of the vulnerability of population centres to drought. This workshop will canvas the issues with practical examples of responses, and map out an agenda for local solutions from a global perspective.

Speakers: Stuart White, *University of Technology Sydney (AU)*, Joanne Chong, *University of Technology Sydney (AU)*, Lloyd Fisher-Jeffes *Aurecon (South Africa)*, Jean Spencer, Anglian Water (UK) and Francisco Cubillo Gonzalez, *Canal de Isabel II (ES)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

WATER MANAGEMENT IN ENERGY PRODUCTION

Room 601 Technical

Chairs: Takahiro Suzuki *Japan* and **Kwok-Wai Richard Tsang** *Canada*

13:30 Reuse of Acidic Water in the Culture of the Oil-producing Microalga, Pseudococcomyxa Sp. KJ Tsubasa Kagami *Kurita Water Industries Ltd., Japan*

13:45 Sustainable Hydrogen Production from Seawater and Sewage Treated Water Using Reverse Electrodialysis Technology Mitsuru Higa *Yamaguchi University, Japan*

14:00 Treatment & Beneficial Reuse of Oil Field Wastewater in Agriculture William Stringfellow *University of the Pacific, United States*

14:15 Toward Sustainable Sewage Sludge Management in Hong Kong: an Eco-Efficiency Approach Using LCA and DEA Chor Man Lam *The Hong Kong Polytechnic University, China*

SOCIAL ISSUES FOR WATER ACCESS

Room 604 Technical

Chairs: Vitaly Gitis *Israel* and **Prosun Bhattacharya** *Sweden*

13:30 Is Non-Piped Drinking Water the Solution for Access for All? An Evaluation of Developments in Mexico by Joshua Greene Joshua Greene *University of Geneva, Switzerland*

13:45 Reinstating Complexity in Water Access Indicators: Evidence from Mexico Anna Peixoto-Charles *University of Geneva, Switzerland*

14:00 Linking Socio-environmental Characteristics With Behavioral Determinants in Predicting Household Water Treatment Practice Daniel Daniel *TU Delft, Netherlands*

14:15 Comparison of Alternative Water Supply Methods for Small Supplies in Japan Kunihisa Takahashi *Japan Water Research Center, Japan*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

MICROBIAL ECOLOGY

Room 601 Technical

Chairs: Krishna Pagilla *United States* and **Sanin Musovic** *Denmark*

15:45 The Use of Next Generation Sequencing as a Monitoring Tool for Microbial Drinking Water Quality from Source to Tap Louise Vanysacker *De Watergroep, Belgium*

16:00 Appropriate Biological Design Factors for the Optimization of Horizontal Subsurface Flow Wetlands' Efficiency Lee-Hyung Kim *Kongju National University, Republic of Korea*

16:15 Effects of Backwashing on Ammonia Removal Performance of Granular Activated Carbon Used for Drinking Water Purification Jia Niu *Fujian University of Technology, China*

16:30 Evaluation of Microbial Diversity in Filters Removing Emerging Micropollutants Cesar Mota Filho *Federal University of Minas Gerais, Brazil*

POLICY RESPONSES TO CONTAMINANTS OF EMERGING CONCERNS IN FRESHWATER - TAKING ADVANTAGE OF NEW SCIENTIFIC DEVELOPMENTS

Room 604 Workshop

Chair: Stephanie Rinck-Pfeiffer *Australia*

New Scientific Developments to analyse Contaminants of Emerging Concerns

New Scientific Developments to analyse Contaminants of Emerging Concerns Water professionals need to address pollution by chemicals of emerging concern's (CECs), including low dose and mixtures effects as early indicators of toxic pathways, which cannot be evaluated using traditional methods. Experts have joined efforts with the Global Water Research Coalition to test and benchmark new methodologies and exchange knowledge on promising panel of assays. The results will be shared with the audience to enhance the acceptance of innovative water quality monitoring, and develop suitable safe thresholds for conventional but also alternative water schemes aiming to better protect ecosystem and human health.

Speakers: Stephanie Rinck-Pfeiffer, *Global Water Research Coalition, (AU)*, Frederic Leusch, *Griffith University, (AU)*, Shane Snyder, *Nanyang Technological University, (SG)*, and Armelle Hebert, *Veolia, (FR)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

COMMUNICATIONS IN A CRISIS SITUATION

Room 605
Workshop

Chair: Kari Elisabeth Fagernaes *Norway*

How do you communicate effiecently to the public, stakeholders, politicans and others during a crisis?

Communication is crucial during a crisis, and is often the make or break for the perceived result or outcome of the situation. During the last years, many new engagement methods and communication tools have been developed. And the field of communication has evolved. How can we use new (and old) tools to communicate better in a critical situation that a crisis is? This interactive workshop will explore the resources and tools available, share experiences and discuss best practices using different cases.

Speakers: Kari Elisabeth Fagernaes, *Agency for Water and Wastewater, Oslo, (NO)* and Paula Kahoe, *San Francisco Water Power Sewer, (US)*

CITIES IN TRANSITION

Room 606
Technical

Chairs: Sandra Hall *Australia* and **Lluis Corominas** *Spain*

10:30 International Cooperation of Tokyo Waterworks: Support in Developing Human Resources Rooted in Local Communities Yosuke Saito *Tokyo Metropolitan Government, Japan*

10:45 Accelerating Water Sensitive City Transitions: Insights from Australian Cities Katie Hammer *Monash University, Australia*

11:00 The Role of Asset Management in the Utility of the Future Ana Luis *EPAL - Empresa Portuguesa das Águas Livres, Portugal*

11:15 Planning for the Future: A 50-year Wastewater Strategy For Greater Copenhagen Utility Ida Knudsen *HOFOR, Greater Copenhagen Utility, Denmark*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

BUILDING PATHWAYS FOR CITY-TO-CITY COLLABORATION ON CLIMATE RESILIENCY

Room 605
Workshop

Chair: Trine Stausgaard Munk *Denmark*

Which steps are necessary for increased knowledge-sharing and collaboration between cities on climate resilience?

This workshop aims to facilitate discussions on city-to-city collaboration and knowledge sharing in their transition towards water-wise cities. It is based on the blueprint developed following the bilateral MoU between Copenhagen and NYC. It will focus on sharing experiences with other city representatives already in city networks or looking to engage in integrated planning for climate resilience, both failures and successes, and together build pathways for improved city-to-city collaboration.

Speakers: Lykke Leonardsen, *City of Copenhagen (DK)*, Pat McCafferty, *Yarra Valley Water (AU)* and Lisa Andrews, *IWA (NL)*

UTILITIES IN TRANSITION TO HIGH PERFORMANCE AND LOW CARBON

Room 606
Workshop

Chair: Corinne Trommsdorff *Netherlands*

What is the process for utilities to become champions of a carbon neutral future?

This interactive workshop will be an opportunity for urban leaders to share experiences on what can drive utilities to adopt a low-carbon mind-set in their planning. Climate change is directly impacting the availability and quality of water, and posing an increasing burden on cities to maintain water security.

Speakers: Camilla Acero, *Environmental Engineer, ANDESCO, (CO)*, Ana Teixeria, *Department of Asset Management, EPAL, (PT)*, Jan Peter van der Hoek, *Head of Strategic Centre of Waternet, (NL)*, Chira Wongburana, *WMA Director, (TH)*, Jammie Saena, *Chief Executive Officer, Samoa Water Authority, (WS)*, Olivier Bouly, *Directeur adjoint aux études et à l'ingéniérie, Greater Paris Sanitation, (FR)* and Stephane Y. Bessadi, *ADB, (PH)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

RESILIENCE IN THE ROUND

Room 605
Workshop

Chair: Trevor Bishop *United Kingdom*

How do you operationalize water infrastructure resilience?

This session will showcase the latest research and practice focused on operationalizing water infrastructure resilience. The projects represented In this session provide participants with an opportunity to trial water infrastructure system-focused optioneering and tools and interrogate other frameworks and best practice examples from across the globe.

Speakers: Prof. Raziyeh Farmani, *Centre for Water Systems, University of Exeter, (UK)*, Dr Kate Baker, *Centre for Water Systems, University of Exeter, (UK)*, Dr Chris Sweetapple, *Centre for Water Systems, University of Exeter, (UK)*, Prof. Chad Staddon, *Centre for Water, Communities & Resilience, University of the West of England, (UK)*, Dr Sarah Ward, *Centre for Water, Communities & Resilience, University of the West of England, (UK)*, Jean Spencer, *Anglian Water, (UK)*, Tomoo Inoue, *MLIT, (JP)* and *Mr Yosuke Matsumiya, Japan Sewage Works Association, (JP)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives — Plenary Room

Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

DRINKING WATER LOW COST SOLUTIONS — Room 607 Technical

Chairs: Seungkwan Hong *Republic of Korea* and **Florent Chazarenc** *France*

10:30 Assessment of The Performance of Household Arsenic Removal Filter in Nepal Ryuji Ogata *The University of Tokyo, Japan*

10:45 Effect of Fe(III) on The Formation of Manganese Related Discoloration in Drinking Water Distribution Systems Baoyou Shi *Chinese Academy of Sciences, China*

11:00 Utilization of Iron Turning Waste as Efficient Point-of-Use Water Filtration Media for Removal of Endrin Eakalak Khan *North Dakota State University, United States*

11:15 Effect of Zero-Valent Iron Amendment on The Performance of Biosand Filters Mansoor Ahammed *S V National Institute of Technology, India*

MODELLING TREATMENT PROCESSES — Room 608 Technical

Chairs: Daniela Conidi *Canada* and **Wim Audenaert** Belgium

10:30 Dynamic Simulation of N_2O Emissions from a Full-scale Partial Nitritation Reactor Eveline Volcke *Ghent University, Belgium*

10:45 Model Calibration and Validation of a Full-scale Reverse Osmosis Process Dorien Gaublomme *Ghent University, Belgium*

11:00 Design Optimization of Wastewater Treatment Plants Using Surrogate Models Chitta Behera *Technical University of Denmark, Denmark*

11:15 Model-based Evaluation of a Full-scale Wastewater Treatment Plant for Future Influent and Operational Scenarios Ramesh Saagi *Lund University, Sweden*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

MEMBRANE PROCESSES FOR DRINKING WATER TREATMENT I — Room 607 Technical

Chairs: Hiroshi Yamamura *Japan* and **Maria Joao Rosa** *Portugal*

13:30 Pilot Research Dreams to Full Scale Reality - Pioneering Drinking Water Treatment in Devon, UK Christopher Rockey *South West Water, UK*

13:45 Ceramic Membrane With Pre-coagulation Using Polyaluminium Chloride (PACl) in Water Reuse: Fouling and Virus Reduction Minkyu Park *University of Arizona, United States*

14:00 Impact of Permeate Flux on Biofilm and Performance Development in Membrane Systems Szilard Bucs *King Abdullah University of Science and Technology, Saudi Arabia*

14:15 18 Years RO-Experience at WTP Heemskerk Biofouling Aspects and Impact Phosphate Moving to Phosphonate Free Antiscalan Gilbert Galjaard *PWNT, Netherlands*

RESOURCE RECOVERY III NUTRIENTS — Room 608 Technical

Chairs: Nari Park *Republic of Korea* and **Celia Castro Barros** *Spain*

13:30 Phosphorus Recovery from Sewage Sludge by High-Temperature Thermochemical Process Fumiki Hosho *KUBOTA Corporation, Japan*

13:45 Global Compendium on Phosphorus Recovery and Recycling from Wastewater Christian Kabbe *Isle Utilities BV, Germany*

14:00 Removal and Recovery of Phosphorus from Wastewater: An Out Of The Box Approach Targeting The Effluent Oded Nir *Ben-Gurion University of the Negev, Israel*

14:15 From Wastewater to Fertilizing Irrigation Water - Pilot Scale Operation Caroline Kragelund *Danish Technological Institute, Denmark*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

MEMBRANE PROCESSES FOR DRINKING WATER TREATMENT II — Room 607 Technical

Chairs: Regina Sommer *Austria* and **Torben Lund Skovhus** *Denmark*

15:45 Improvement of Water Recovery Rate After NF Membrane Treatment of Contaminated Raw Water Katsuhito Arai *Tokyo Metropolitan Government, Japan*

16:00 Treatment of RO Concentrate from 5 Potable Reuse Facilities in The Southwestern U.S. With a New Photobiological Process Keisuke Ikehata *Pacific Advanced Civil Engineering, Inc., United States*

16:15 Evaluation of Pre-treatment Processes for SWRO by the Removal of Organic Substances Kazuaki Shimamura *Swing Corporation, Japan*

16:30 Reverse Osmosis Productivity Enhancement Through Novel Brine Treatment by Organic Liquid Extraction Marc Philibert *CIRSEE, France*

RESOURCE RECOVERY IV NUTRIENTS & SULFUR — Room 608 Technical

Chairs: Maria Veiga *Spain* and **Adeline Seak May Chua** *Malaysia*

15:45 Pilot-scale Test for Recovering of Phosphorus by Sludge Acidification and Dewatering Morten Christensen *Aalborg University, Denmark*

16:00 Investigation of Seawater-based Urine Phosphorus Recovery (SUPR) Reactor Wentao Tang *Hong Kong University of Science and Technology, China*

16:15 Novel Techniques for The Recovery of Sulphur and Nitrogen from Contaminated Air at Wastewater Treatment Plant (WWTP) Wipa Charles *Murdoch University, Australia*

16:30 A Novel Approach to Recover S0 Using a Denitrification-desulfurization Process in a Biofilm-formed Membrane Reactor Aijie Wang *Harbin Institute of Technology, China*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities — Plenary Room

Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

ANAEROBIC PROCESSES I

Room 609 Technical

Chairs: Caroline Kragelund *Denmark* and **Yan Zhou** *Singapore*

10:30 A Pilot Study on Integrated Two-Stage Anaerobic Digestion of Food Waste in an Innovative Dual-Cylinder Reactor Xuchuan Shi *Tsinghua University, China*

10:45 AnMBR Technology: Boosting Circular Economy in Sewage Treatment Jose R. Vazquez-Padin *FCC Aqualia SA, Spain*

11:00 The Start-up of an Endless Stream Anaerobic Digester to Treat Palm Oil Mill Effluent Kazumasa Kamachi *Swing Corporation, Japan*

11:15 Correlation Mechanism Between Microbial Community Distribution and Organic Metabolism in Urban Sewer System Xuan Shi *Xi'an University of Architecture and Technology, China*

SUSTAINABLE DEVELOPMENT GOALS - BEYOND BENCHMARKING & BUSINESS AS USUAL

Room 610 Workshop

Chair: Kathryn Silvester *Australia*

How to use the Sustainable Development Goals as drivers for Business Strategy and Decisions?

This workshop will showcase examples where organizations have moved beyond benchmarking their current contributions to the SDGs and are using the goals to influence strategy and drive business decisions. Participants will discuss their organisation's current status, how they can move to the next stage and what support IWA can provide.

Speakers: Kathryn Silvester, *Sydney Water, (AU)*, Rosie Wheen, *WaterAid, (AU)*, Trine Munk, *Ramboll, (DK)* and Günter Langergraber, *University of Natural Resources and Life Sciences, (AT)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

ANAEROBIC PROCESSES II

Room 609 Technical

Chairs: Henri Spanjers *Netherlands* and **Germán Buitrón** *Mexico*

13:30 The Mechanism of Thermal Hydrolysis Further Into Metabolic Pathway in Promoting Anaerobic Digestion of High Solid Sludge Chen Sisi *Tongji University, China*

13:45 Anaerobic Digestion System Using Vertical Type Filtration Thickener and Conical Bottom Type Steel Plate Digestion Tank Azusa Hayashi *Japan Sewage Works Agency, Japan*

14:00 Enzymatic Tailoring for Anaerobic Digestion Yields Improvement Jana Jantova-Patel *Cranfield University, United Kingdom*

14:15 Transformation of Dissolved Organic Matters in Anaerobic Digestion System With Thermal Hydrolysis Pretreatment Yan Zhou *Nanyang Technological University*

THE VALUE OF WATER INFORMATION: OVERCOMING THE GLOBAL DATA DROUGHT

Room 610 Workshop

Chair: Randolf Webb *Switzerland*

How do we close the global water data gap with cost-effective, scalable solutions?

The mismatch in water resource data: there has been a significant decline in coverage of national water data systems and globally verified water monitoring systems. At the same time, increased climate volatility and rising demand for fresh water has resulted in an urgent need for accurate, timely water data.

Speakers: Randolf Webb, *Xylem (CH)* and Kelly McAndrew, *Xylem, (US)*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

NUTRIENT REMOVAL II

Room 609 Technical

Chairs: Julian Sandino *United States* and **Maite Pijuan** *Spain*

15:45 Nitrification and Denitrification Performance of Downflow Hanging Sponge Reactor for Sewage Treatment Iin Thailand Wilasinee Yoochatchaval *Kasetsart University, Thailand*

16:00 Simultaneous Removal of Nitrate and Phosphate from Wastewater by Siderite Based Autotrophic Denitrification Yan Yang *University College Dublin, Ireland*

16:15 Experiences Mitigating Nitrous Oxide Emissions from a Full-Scale Sidestream Deammonification Reactor Mads Leth *VCS Denmark, Denmark*

16:30 Nitrogen Removal and N_2O Accumulation During Hydrogenotrophic Denitrification Yajiao Wang *School of Environment, Tsinghua University, China*

WATER POLICY, GOVERNANCE & INSTITUTIONAL ARRANGEMENTS INCLUDING SDGS

Room 610 Technical

Chairs: Rasyikah Md Khalid *Malaysia* and **David Tipping** *Australia*

15:45 The Sustainable Development Goals: A Disruptor for the Water Sector Kathryn Silvester *Sydney Water, Australia*

16:00 The Quest for SDG6 and Community Water Services Resilience - Factor 3? Jarmo Hukka *Tampere University of Technology, Finland*

16:15 Integrating Sustainable Development Goals in Business Decision Support at a Danish Water Utility Troels Bjerre *VCS Denmark, Denmark*

16:30 Normative Interaction Between SDG 6 and the Human Rights to Water and Sanitation Miharu Hirano *Kyoto University, Japan*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

INTEGRATING NATURE-BASED SOLUTIONS FOR WATER IN URBAN WATER INFRASTRUCTURE

Room ICR
Lecture

Chair: Tony Wong *Australia*

How to best integrate natural-based solutions with conventional urban water infrastructure to enhance the water resilience, livability and sustainability of cities and towns?

During this session, Prof. Wong will provide an overview of the scientific developments that underpin the adoption of nature-based solutions for water, from the understanding of water-related natural processes and ecosystem services.

Examples of water sensitive urban design and other related international programs will be provided of how green infrastructure is being incorporated within the urban water systems at allotment and precinct scale through innovative building and landscape architectural design form. Discussion will include how water sensitive design principles can be integrated within city & regional planning with examples from around the world to illustrate the current practices and benefits, as well as some of the technical, economical & political barriers to be overcome to ensure further diffusion of this way of thinking. The session will conclude with a Q&A session with Prof. Wong and his quest panelists

DWTP REHABILITATION

Room 701
Technical

Chairs: Jacob Amengor *Ghana* and **Piphat Boribannukul** *Thailand*

10:30 Investigation for Applicability of Membrane Filtration Technology to Surface Water Containing Many Fouling Substances Namiko Nakamura *Osaka Municipal Waterworks Bureau, Japan*

10:45 Geophysics in Rapid Sand Filters - 3D Mapping of the Clogging Material for Optimization of Backwashing Theis Andersen *VIA University College, Denmark*

11:00 An Innovative Contact Oxidation Method for Effective Arsenic Removal at 10,000m³/day Large Scale Water Treatment Plant Takuro Nishimura *NAGAOKA International Corporation, Japan*

11:15 Promoting Grass-roots Energy Saving Actions for Facilities Including Purification Plants and Water Supply Stations Hitoshi Murakami *Tokyo Metropolitan Government, Japan*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

BUSINESS FORUM - WATER MANAGEMENT IN MEGACITIES I

Room ICR
B. Forum

Chair:

Organised by: *Japan Society on Water Environment, Japan Water Works Association, Japan Sewerage Works Association, Bureau of Waterworks and Bureau of Sewerage, Tokyo Metropolitan Government*

Cooperated by: *Japan International Cooperation Agency(JICA)*

Megacities of developed countries that experienced rapid urbanization and population growth, and megacities of metropolis that is expected to be future megacities, will share the knowledge on various issues of water and sewerage. We intend to discuss issues and response which future megacities of developing countries face, and contribute to implement efficiency of comprehensive water management.

Speakers: Satoshi Takizawa, *The University of Tokyo (JP)*, Myo Thein, *Yangon City Development Committee(YCDC) (MY)*, Tran Thi Viet Nga, *National University of Civil Engineering (NUCE) (VN)*, Shigeyuki Matsumoto, *Japan International Cooperation Agency (JICA) (JP)* and Satoshi Tamura, *Tokyo Metropolitan Government (JP)*

WWTP REHABILITATION

Room 701
Technical

Chairs: Sylvain Donnaz *France* and **Kazunari Sei** *Japan*

13:30 Understanding the Nitrous Oxide Emissions from Wastewater Treatment Plant - from Macro to Micro Scale Liu Ye *The University of Queensland, Australia*

13:45 Challenge of Granulation Without Inoculation for a Sewage Treatment: A Search for Better Operational Configuration Bruna Scandolara Magnus *Federal University of Santa Catarina, Brazil*

14:00 Improving the Capacity of The Käppala WWTP by Using Hydrocyclones Stefan Erikstam *Käppala Association, Sweden*

14:15 Improvement of Effluent Quality and Cost Saving at a 750,000pe WRRF Using an Extensively Validated CFD Model Usman Rehman *AM-TEAM, Belgium*

Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

BUSINESS FORUM - WATER MANAGEMENT IN MEGACITIES II

Room ICR
B. Forum

Chair: Satoshi Takizawa *Japan*

Organised by: *Japan Society on Water Environment, Japan Water Works Association, Japan Sewerage Works Association, Bureau of Waterworks and Bureau of Sewerage, Tokyo Metropolitan Government*

Cooperated by: *Japan International Cooperation Agency(JICA)*

Megacities of developed countries that experienced rapid urbanization and population growth, and megacities of metropolis that is expected to be future megacities, will share the knowledge on various issues of water and sewerage. We intend to discuss issues and response which future megacities of developing countries face, and contribute to implement efficiency of comprehensive water management.

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ASSET MANAGEMENT USING ICT STRATEGIES & INFORMING PUBLIC POLICY

Room 701
Technical

Chair: Yoichi Yamamoto *Japan* and **Joao Feliciano** *Portugal*

15:45 Applying Satellite Technology to Water Treatment Plant (WTP) Operations: Optimization at Catchment Level Katharine Cross *IWA, Netherlands*

16:00 Information and Asset Management Low Cost Solutions for Water and Sanitation - Case Study of Mozambique António Monteiro *Instituto Superior Técnico, Portugal*

16:15 Enhancing Asset Knowledge to Improve French Public Policies for Sustainable Drinking Water Asset Management Eddy Renaud *Irstea, France*

16:30 Development of Optical Feed Multi Sensing System for Sewer Infrastructure Utilizing Optical Fiber Installed in Sewers Yoshihiro Kurihara *Tokyo Metropolitan Sewerage Service Corporation, Japan*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

WATER MANAGEMENT IN: CHEMICALS & PHARMACEUTICALS

Room 703 Technical

Chairs: **Tjandra Setiadi** *Indonesia* and **Say-Leong Ong** *Singapore*

10:30 Column Studies to Investigate the Degradation of Tetracycline and Amoxicillin Under Different Redox Conditions Liangliang Wei *Harbin Institute of Technology, China*

10:45 Impact of Industrial Waste Water Treatment Plants on Dutch Surface Waters and Drinking Water Sources Annemarie van Wezel *KWR, Netherlands*

11:00 Occurrence and Fate of Emerging Contaminants (ECs) in Raw Landfill Leachate by a Full-scale Constructed Wetlands System Ngoc Han Tran *National University of Singapore, Singapore*

11:15 Assessing Stability of Illicit Drugs as Biomarkers in Real Sewers By Laboratory Determined Kinetics Jiaying Li *The University of Queensland, Australia*

POLICY CHARRETTE: CHALLENGING YOUNG LEADERS TO INVENT FUTURE WATER POLICY I

Room 801 Skills

Chair: **Paul Brown** *United States*

What innovations in water policy will be needed in the next 30 years?

Interactive charrette tackling emerging dilemmas in the water industry. Building on a scenario-planning framework, participants explore plausible futures given the uncertainty of climate change, volatility of socio-economic conditions, deterioration of legacy systems, and consequences of disruptive technologies. Participants then collaborate on concepts for addressing the detrimental impacts of future trends.

Speakers: Steve Moddemeyer, *CollinsWoerman (USA)*, Paul Brown, *Paul Redvers Brown Inc. (USA)*, Samantha Arbor, *Alberta Energy Regulator (CA)* and Blair Scott, *King County Dept. of Natural Resources and Parks (USA)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

PREPARDNESS FOR EXTREME EVENTS

Room 703 Technical

Chairs: **Lisa Bross** *Germany* and **Tsutomu Shioda** *Japan*

13:30 Simulation Analysis of Residual Chlorine Concentration in Emergency Water Storage Facilities for Disaster Keiji Kishimoto *Kurimoto Ltd.*

13:45 Efforts on Radioactivity After the Great East Japan Earthquake Tomo Oikawa *Tokyo Metropolitan Government, Japan*

14:00 Design Strategy for Managing Extreme Rainfall Events in Low-lying Dense Areas of Copenhagen Toke Illeris *Greater Copenhagen Utility, HOFOR A/S, Denmark*

14:15 Effects of a Mt. Zao Eruption on Sendai City Waterworks Bureau Projects and Their Countermeasures Hiroshi Nishizawa *Sendai City Waterworks Bureau, Japan*

POLICY CHARRETTE: CHALLENGING YOUNG LEADERS TO INVENT FUTURE WATER POLICY II

Room 801 Skills

Chair: **Paul Brown** *United States*

What innovations in water policy will be needed in the next 30 years?

Interactive charrette tackling emerging dilemmas in the water industry. Building on a scenario-planning framework, participants explore plausible futures given the uncertainty of climate change, volatility of socio-economic conditions, deterioration of legacy systems, and consequences of disruptive technologies. Participants then collaborate on concepts for addressing the detrimental impacts of future trends.

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Coffee Break 15:00 - 15:45

Session 3 15:45 - 17:15

PREPAREDNESS FOR DISASTERS

Room 703 Technical

Chairs: **Tsutomu Shioda** *Japan* and **Nuno Brôco** *Portugal*

15:45 Climate Change Adaptation: A Pragmatic Approach for Assessing Vulnerability Marta Carvalho *AdP Serviços, Portugal*

16:00 Study of Business Continuity at Arao City Waterworks to Respond to Large-Scale Disasters Yuji Kawase *Metawater Co. Ltd., Japan*

16:15 A Study on Drought Risk Assessment and Risk Reducing Effect Analysis Through Multipurpose Dam Simulation Taehyeon Kim *University of Seoul, Republic of Korea*

16:30 Preparing for Various Threats in Tama Waterworks: Development of Facilities to Prepare for Disasters in Tama Waterworks Takao Shirai *Tokyo Metropolitan Government, Japan*

WATER CAREER LEADERS PANEL

Room 801 Skills

Chair: **Pablo Ledezma** *Australia*

How to develop your own resilience?

This session is for professionals who are looking to establish themselves in the water sector, and who want to take the next steps in their WaterCareer. Through interaction with senior professionals in the form of a panel and group discussions, the professional will expand their understanding of their role within the integrated global water sector, obtain practical advice on how to plan their professional development and how to become a #FutureWaterLeaders, and have the opportunity to receive personal tips and tricks.

Speakers: Rosie Wheen, *WaterAid (AU)*, Mari Asami, *National Institute of Public Health (JP)*, Bruno Nguyen, *UNESCO (FR)* and Bernadette Conant, *Canadian Water Network (CA)*

Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Programme

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and
Mark van Loosdrecht *Delft University of Technology, Netherlands*

Coffee Break 09:45 - 10:30

Session 1 08:30 - 12:00 *

Room 802
Training

NON REVENUE WATER ASSESSMENT AND MANAGEMENT IN LOW AND MIDDLE INCOME COUNTRIES

Organiser: **IWA Water Loss Specialist Group**

Trainer: **Roland Liemberger** *Non Revenue Water Specialist Miya, Austria*, **Bambos Charalambous** *Director Hydrocontrol, Cyprus* and **Stuart Hamilton** *Managing Director, HydroTec, UK*

Recent research presented at the IWA Water and Development Congress in Buenos Aires (2017) has shown that the global volume of NRW is estimated to be 346 million cubic meters per day or 126 billion cubic meters per year. Conservatively valued with only USD 0.31 per cubic meter, the cost/value of water lost amounts to USD 39 billion per year. Sadly, around 80% of these losses occur in low and middle income countries.
Non-revenue water (NRW) management can deliver significant health, systems, and financial and economic benefits, but not all professionals know where to start. This training will provide participants with an understanding from assessing Non-Revenue Water to developing and implementing improvement plans.
Registration is required

Lunch 12:00 - 13:30

Session 2 13:00 - 16:00 *

Room 802
Training

NON REVENUE WATER ASSESSMENT AND MANAGEMENT IN LOW AND MIDDLE INCOME COUNTRIES

Organiser: **IWA Water Loss Specialist Group**

Trainer: **Roland Liemberger** *Non Revenue Water Specialist Miya, Austria*, **Bambos Charalambous** *Director Hydrocontrol, Cyprus* and **Stuart Hamilton** *Managing Director, HydroTec, UK*

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Break 17:15 - 17:30

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities **Rebekah Eggers** *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

* Timetable diverge from the main schedule

Wednesday

Business Forums

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

09:45 – 10:30
Room 01 Business

METAWATER

Introduction of METAWATER Servicece Solution Business
Presented by: **Makoto Shimizu**

METAWATER is one of the leading water and environment engineering companies in Japan. This year marks 10th anniversary. We have been designed and installed mechanical and electrical equipment in drinking and wastewater treatment plant to provide any clients with the best solution. Our various service such as EPC as a general contractor, O&M, and privatization, make a contribution to realization of more sustainable social infrastructures.

09:45 – 10:30
Room 02 Business

KUBOTA CORPORATION

Kubota's MBR Technology and Johkasou – Onsite Wastewater Treatment Plant
Presented by: **Shinya Nagae**, **Yusuke Oi** and **Tsuyoshi Suzuki**

Introducing membrane bioreactor (MBR) technology with features of Kubota's Submerged Membrane Unit (SMU) and case studies of international and domestic application. Also introducing Johkasou,which is Japanese unique onsite wastewater treatment plant, which is recently contributing to improve water environment in Asian countries.

10:30 – 11:15
Room 01 Business

NJS CO., LTD.

Introduction of Drones Designed for Inspection in Sewerage Pipes and Other Confined Space
Presented by: **Patrik Ken Takeuchi**

Drones designed for inspection in sewerage pipes and other confined space.

KANSEI COMPANY

300 Years of Sustainable Sewer System
Presented by: **Benoit Tisserand**

We challenge the maintenance and management of the sewer system that is indispensable for over half a century. We present our technologies in term of sewer pipes inspection robots.

10:30 – 11:15
Room 02 Business

PHOSLOCK WATER SOLUTIONS LTD.

Restoration of Eutrophied Lakes Using Modified Clay (Phoslock)
Presented by: **Nigel Traill**

Phoslock is a modified bentonite clay that has been applied to more than 250 eutrophied lakes worldwide to reduce phosphorus concentrations and mitigate against the risk of blue green algal (cyanobacterial) blooms. It is inert and harmless to aquatic life. Once bound, phosphate remains permanently locked within the clay matrix of Phoslock.

11:15 – 12:00
Room 01 Business

HITACHI, LTD.

Hitachi's Water Management
Presented by: **Hideyuki Tadokoro**, **Koji Kageyama** and **Ichiro Yamanoi**

For water supply and sewerage to develop sustainably, it will be necessary to overcome challenges such as demographic change, energy saving, aging infrastructure, etc. Hitachi promotes the practice of working through the sense-think-act cycle helping to pursue digital innovations. We will present about novel monitoring and control systems and O&M support systems using data analytics technologies.

11:15 – 12:00
Room 02 Business

SWING CORPORATION

Swing's Sustainable Solution for Energy Reduction
Presented by: **Tomohiro Iikura**, **Imansho Nagamine** and **Natsuko Nakayama**

Changes in external environment such as natural disasters, aging facilities, and depopulation are important issues for managing infrastructure.

Solutions such as disaster resilient equipment, energy saving membrane systems, efficient operation of facilities utilizing IoT to cope with these issues.

12:15 – 13:00
Room 01 Business

NIHON GENRYO CO., LTD.

"Distributed Compact Water Systems" & "Disaster Relief Water System" Optimum for Small-scale Water – Cutting-Edge Technology for Washing Filtration Material
Presented by: **Yasuhiro Saito** and **Hiroshi Ejima**

Japan is a country where tap water is fit to drink. However, small scale waterworks face challenges: aging facilities, a shrinking population and disaster response actions. Flexibility can be achieved by leveraging the outstanding mobility of "distributed compact water systems" based on unprecedented maintenance-free mobile filtration systems.

12:00 – 13:00
Room 02 Business

CONFEDERATION OF DANISH INDUSTRY

Turning Necessity into Benefits
Presented by: **Water professionals from utilities** and **companies**

Climate adaption in terms of urban blue-green resilience is an optimal way to mitigate increased flooding problems in cities. The key focus is on addressing the global climate changes and securing the vital urban infrastructure. Significant investments must be placed in sewage and stormwater, this session will showcase various ways address climate adaptation while improving city livability.

Keynote Plenary 17:30 - 18:15

"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room

Wednesday

Business Forums

Keynote Plenary 09:00 - 09:45

Innovation to Implementation – Academia and Utility Perspectives
Sudhir Murthy *CEO, NEWhub, United States* and **Mark van Loosdrecht** *Delft University of Technology, Netherlands*

Plenary Room

13:30 – 14:15
Room 01
Business

CAMBI GROUP AS

THP to Enhance Anaerobic Digestion and Generate Costs Savings
Presented by: **x**

Cambi is a leading provider of technology for the conversion of sludge to renewable energy and high-quality biosolids. The company founded in 1989, has offices in 9 countries. 64 plants committed to the CambiTHP® process in the 21 countries, Cambi serves more than 70 million people around the globe.

14:15 – 15:00
Room 01
Business

TSUKISHIMA KIKAI CO., LTD.

Advanced Sewage Sludge Incinerator Composed of Pressurized Fluidized Bed Incinerator and Turbocharger
Presented by: **Saori Ito**

Combustion system composed of a Pressurized Fluidized Bed Incinerator (PFBI) and a turbocharger, for converting exhaust gas into surplus pressurized air.

JAPAN WATER WORKS ASSOCIATION

Introducing Mutual Support System in the Case of Disaster
Presented by: **Yohei Okazaki**

Japan Water Works Association is an organization with 1,400 utilities and 600 corporates as members. Our Mutual Support System allows effective and immediate support among water utilities in case of severe disaster.

15:45 – 16:30
Room 01
Business

AQUAFLANDERS

Smart Water Systems
Presented by: **Bert De Winter**

Flanders is ready to monitor its water consumption remotely and at any time. AquaFlanders shows how Flanders will implement remote monitoring water consumption: from regulation to practice.

Water Scarcity in Flanders
Presented by: **Carl Heyrman**

As a result of the drought in 2017, AquaFlanders and its members from the Flemish water sector have set up an action plan to prevent a shortage of drinking water during the summer season.

16:30 – 17:15
Room 01
Business

XYLEM INC

Water Reuse
Presented by: **Achim Ried**

Water reuse is a proven approach that can help meet growing water demands, while safeguarding existing water supplies. It produces high-quality water at low lifecycle costs and provides a resilient water source with economic and environmental co-benefits. Xylem's advanced treatment technologies demonstrate that wastewater can be purified beyond drinking water standards and reused safely for both potable and non-potable purposes.

13:00 – 14:45
Room 02
Business

SWAN FORUM PROGRAM

Introduction to the SWAN Forum and Insights on the Future of Water
Speaker: **Frederick Royan VP** *Global Leader, Environment & Water Practice - Frost & Sullivan*

SMART Strategic Round Table Discussion

Day 3 of ETP will host a series of Strategic Round Table Discussions, where cross sector professionals and disciplines from finance, consultancy, technology providers, utilities, NGO's and industrial sector forwarded a new 'circular' perspective on Smart Water.

14:45 – 15:00

ISLE - IWA EMERGING TECHNOLOGIES PROGRAM

ISLE- IWA Emerging Technologies Award Ceremony

The winner of the Emerging Technologies Pitches will be announced by the Executive Director of IWA. Organized by Isle Utilities & IWA.

15:00 – 16:30
Room 02
Business

CANADA PAVILION

Canada Water Seminar
Presented by: **Robert Haller** and **Paul O'Callaghan**

IWA Canadian National Committee (CWWA & CAWQ) and the Embassy of Canada to Japan are organizing Canada Water Seminar and networking session on the following topics;

- The overview of Canadian water and waste water industry
- Challenge and opportunities in Canadian market
- Key Canadian technologies
- Global water trend, emerging trend and key driver in Canada
- Investment and R&D opportunities

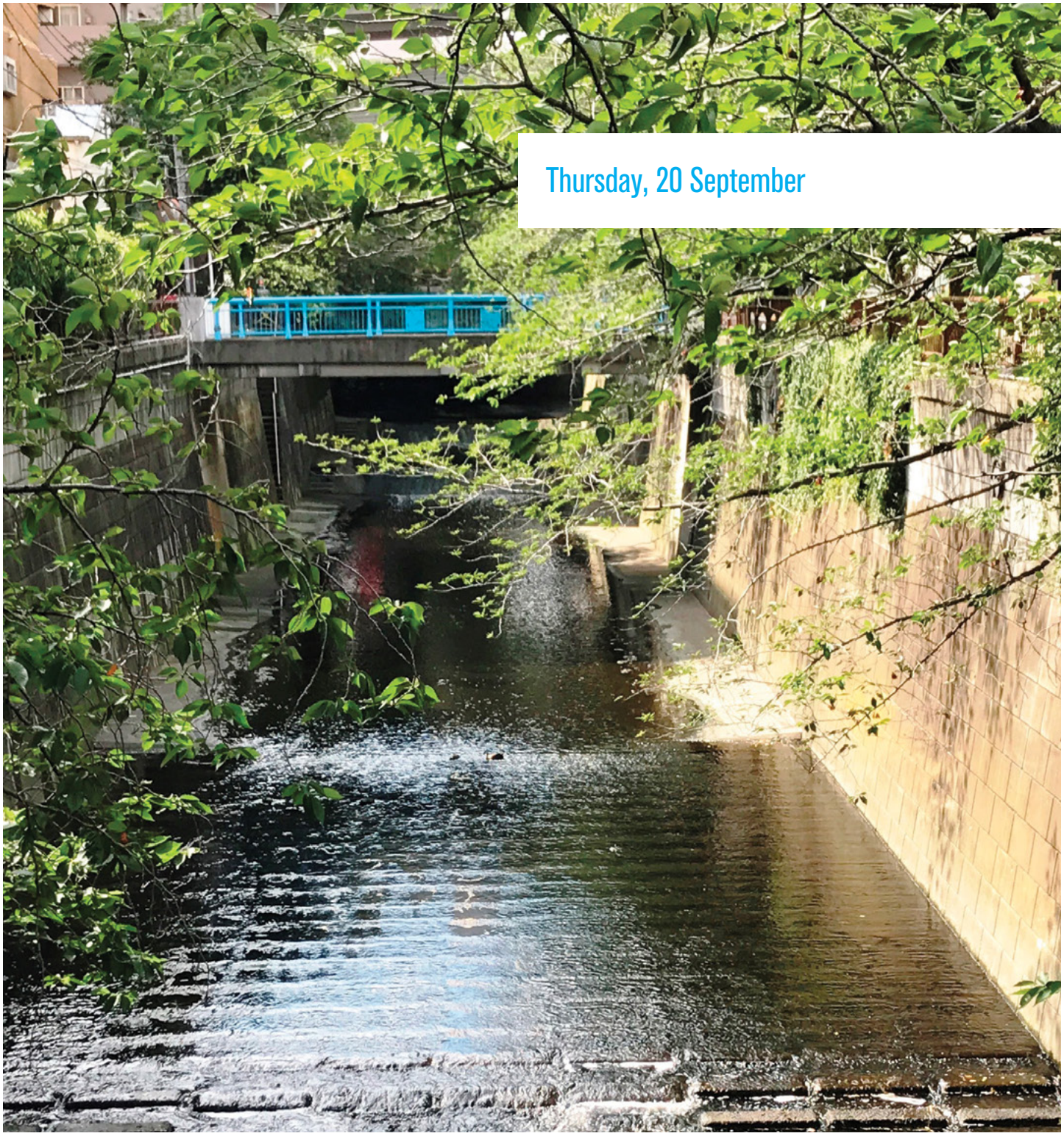
16:30 – 17:15
Room 02
Business

AFRICA PAVILION

Keynote Plenary 17:30 - 18:15

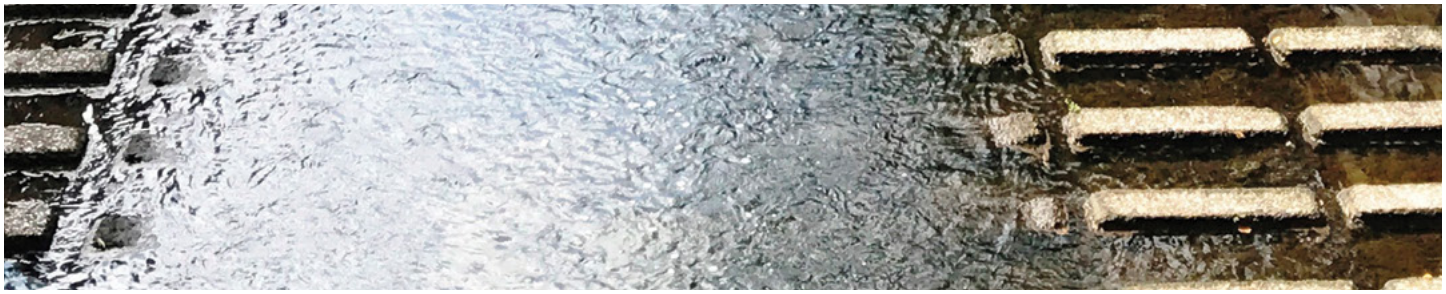
"Drips and Drops to Bits and Bytes" – The Digitization of Water and Impacts on Utilities
Rebekah Eggers *Industry Leader, Energy, Environment & Utilities, Watson IoT, IBM, United States*

Plenary Room



Thursday, 20 September

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT



Thursday Spotlight

Keynote Plenary ▪ International Conference Room

09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility

Keynote speakers:

Lars Therkildsen
CEO of HOFOR, Greater Copenhagen Utility, Denmark

Panel moderator:

Abby Crisostomo
Senior Policy and Programme Officer, Greater London Authority, UK

Panel discussion:

Bernadette Conant
CEO, Canadian Water Network, Canada
Jian Wu
CEO, Poten, China
Sylvain Usher
Secretary General, AfWA, Ivory Coast
Dato' Tan Yew Chong
Secretary General, Ministry of Water, Land and Natural Resources, Kuala Lumpur, Malaysia

Closing Ceremony ▪ International Conference Room

15:15 - 16:45

Closing Ceremony

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Master Lecture ▪ International Conference Room

10:30 - 12:00

Recent Trends in Potable Water Reuse

Chair: Jörg Drewes *Germany*

How can we engineer reliable potable water reuse systems?

Potable water reuse started as pioneering efforts in Southern California and Windhoek, Namibia, 50 years ago. This practice has seen tremendous growth over the past 15 years in various regions of the globe adopting the latest treatment approaches, performance control strategies or water quality monitoring approaches. However, since reclaimed water typically poses greater technical and institutional challenges than traditional water supplies, regulators and the general public are concerned about the safety of using reclaimed water for potable reuse purposes.

This lecture will provide an overview of various potable reuse treatment approaches following the design concept of multiple barriers and the latest risk assessment strategies applied to these schemes. A critical evaluation of water reuse systems as well as treatment combinations will be given, considering actual performance results from full-scale installations. The knowledge presented can assist utility managers, design engineers, regulators, operators and researchers in their work.

Basin Connected Cities Forum ▪ Room 605

10:30 - 15:00

Achieving Water Security and Building Climate Resilience Within Our Watersheds

Following the Basin Leaders Forum in Brisbane, Australia, in 2016, and a series of workshops in 2017 which have shaped the Agenda, the Forum will convene thought leaders and urban stakeholders. There will be two 90-minute sessions, the first on the transition to basin-connected cities and the second on innovative practices. The sessions will have a mixture of panel and roundtable discussion where the aim is to maximise knowledge sharing.

Emerging Water Leaders Forum ▪ Room 101

10:30 - 15:00

How to Plan for the Unknown?

The leaders of tomorrow need to start planning their water future today. Join the young and emerging water leaders in this forum to answer three key questions – posed by the Congress Keynote Speakers – that the sector will have to address in 2030–2050 in the areas of digital water, climate resilience and healthy liveable cities.

IWA Pavilion

The last day of the Congress, but not the least in terms of engagement opportunities at the IWA Pavilion. Explore carbon-neutral water utilities with the launch of the Roadmap to Low Carbon Urban Water Utilities: An International Guide to the WaCCliM Approach over the coffee break. Over lunch, take the opportunity to meet IWA executives and more, highlighting Young Water Professional engagement opportunities.

Exhibition

13:30 – 14:15

SYSTEA SpA

Easychem TOX Early Warning: On-line Water Analyser for Acute Toxicity Measurement by Bioluminescent Bacteria

Presented by: Luca Sanfilippo *Japan*

Easychem TOX Early Warning is an on-line analyser for drinking water and environmental monitoring applications. The use of up to 20 industrially prepared dried bioluminescent bacteria vials, automatically rehydrated to ensure long-term unattended operation down to 5 minutes frequency, coupled with its discrete analytical technology, allows easy and reliable operations and low maintenance cost.

Thursday

Programme

Keynote Plenary 09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility
Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

DISINFECTION BY-PRODUCTS

R. Hall A
Technical

Chairs: Chao Chen *China* and **Jyoti Gautam** *India*

10:30 Removal of Haloacetic Acid Precursors by Filtration Using Metal Oxide-Coated Filter Media Mitsuru Aman *The University of Tokyo, Japan*

10:45 Reduction of Dissolved Organic Nitrogen and Haloacetonitriles Formation by Vacuum-UV Treatment Eakalak Khan *North Dakota State University, United States*

11:00 Formation of N-nitrosodimethylamine by Chloramination of Anthropogenic Tertiary Amines With Dimethylamine Moiety Shinya Echigo *National Institute of Public Health, Japan*

11:15 Effect of Ozonation on the Characteristics of EfOM Fractions and Subsequent Associations With DBPs Formation Weixiao Qi *Tsinghua University, China*

MEMBRANE BIOREACTORS

R. Hall B
Technical

Chairs: How Yong Ng *Singapore* and **Julien Ogier** *Germany*

10:30 Demonstration of Energy-saving Membrane Bioreactor (MBR) Systems Kyoko Yamashita *Japan Sewage Works Agency, Japan*

10:45 Biosorption and Low Energy Step-feed Membrane Bioreactor for Water and Resource Recovery Guihe Tao *PUB, Singapore's National Water Agency, Singapore*

11:00 Development of a New Aeration Control Method for Membrane Bioreactor Yuko Tsuzuki *Kubota Corporation, Japan*

11:15 Sidestream Vs Immersed Membrane Bioreactors: a Cost Analysis Simon Judd *Judd & Judd Ltd / Cranfield University, United Kingdom*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

EMERGING CONTAMINANTS

R. Hall A
Technical

Chairs: Dai Simazaki *Japan* and **Kwanrawee Sirikanchana** *Thailand*

13:30 Development of Methods to Efficiently Remove Disinfection By-product Precursors in Slow Filtration Kaori Nishino *Tokyo Metropolitan Government, Japan*

13:45 Examinations of Toxins That Blue-green Algae Produce Kazuki Tominaga *Tokyo Metropolitan Government, Japan*

14:00 Nanoplastic Removal During Drinking Water Purification Svenja Mintenig *Utrecht University, Utrecht, Netherlands*

14:15 Combining PAC-adsorption and Nitrification in an MBBR Michael Cimbritz *Lund University, IUND, Sweden*

MEMBRANE APPLICATION WASTEWATER MANAGEMENT

R. Hall B
Technical

Chairs: Kuo-lun Tung *Taiwan* and **Roger Ben Aim** *France*

13:30 Effect of Serially-connected Forward Osmosis (FO) Membrane Elements on the Performance of Pressure-assisted FO (PAFO) Chulmin Lee *Gwangju Institute of Science and Technology, Republic of Korea*

13:45 MABR: A Low Energy Process Intensification Solution for Shortcut Nitrogen Removal Applications Per Nielsen *VCS Denmark, Odense, Denmark*

14:00 Piperidine Derivatives With Switchable Polarity as Novel Draw Solutes in Forward Osmosis Akiko Suzuki *Toshiba Corporation, Japan*

14:15 In-situ Degradation of Recalcitrant Pollutants by Graphene Modified Electro-Fenton Membranes Wenli Jiang *University of Chinese Academy of Sciences, China*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

Programme

Keynote Plenary 09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility
Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

FORUM - EMERGING WATER LEADERS FORUM

Room 101 Forum

Chair: Arlinda Ibrahimllari *Albania*

How to plan for the unknown?

The leaders of tomorrow need to start planning their water future today. Join the young and emerging water leaders in this forum to answer 3 key questions - posed by the Congress Keynote Speakers - that the sector will have to address in 2030-2050 in the areas of Digital Water, Climate Resilience and Healthy Liveable Cities.

Using teaching and applying techniques to break complex questions down in smaller components, you will discuss the answers among your peers and with invited senior experts Banu Ormeci *Carleton University, Canada*, Claudia Sadoff *IWMI Sri Lanka*, Jean Spencer *Anglian Water, UK*, Tom Mills *Xylem, Singapore*, Philip de Souza *Emanti, South Africa*, Gustaf Olsson *Lund University, Sweden*, Xavier Litrico *Suez, France*, Tony Wong *CRC for Water Sensitive Cities, Australia* and Mark Fletcher *Arup, UK*.

You will practice your problem solving skills whilst developing actions towards planning our future. Be part of the #FutureWaterLeaders #WorldWaterCongress

DIGITALISATION OF WATER - TRENDS & OPPORTUNITIES

Room 102 Workshop

Chair: Kala Vairavamoorthy *Executive Director IWA Netherlands*

Which are the latest trends on digitalisation of water utilities?

Powered by digital technologies, the water utilities will be key drivers in creating water abundance. Digital technologies will be transformational in positioning the water sector for expanded resilience to increased demands and impacts from climate change. Asset management and real-time monitoring of water utility infrastructure performance are the most obvious opportunities for digital water technology adoption. But the digital water value chain is enabling utilities to connect beyond their physical boundaries, including their watersheds, customers and the workforce as never before. In this session, the panellists will explore the digital water ecosystem and the opportunities that they represent for utilities around the world. Then the latest development in sensor technology will be explored, as well as the advancements in Data Analytics and AI. Then the discussion will shift to the trends in IT/OT integration in water applications.

Speakers: Tom Mills *TBC*, *Xylem* Kamstrup TBC, Dragan Savic *KWR*, Hideyuki Tadokoro *Hitachi Ltd.*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

FORUM - EMERGING WATER LEADERS FORUM

Room 101 Forum

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DIGITAL WATER HOT TOPICS: CYBERSECURITY, CONNECTED WORKFORCE & BUSINESS 4.0

Room 102 Workshop

Chair: Kala Vairavamoorthy *Executive Director IWA Netherlands*

How can utilities take advantage of major IT trends while minimizing major risks inherent to digitalisation?

While digital technologies offer enormous promise, the adoption implies challenges and approaches to enabling these technologies to scale. This session will explore three elements that are key for the success of digital transformation of utilities.
A first key aspect is cybersecurity . Utilities need to manage both the risk to interference in systems operation as well as data security concerns.
A second critical requirement is developing a digitally competent workforce. This means first to establish a culture of digital innovation within utilities and to explore how to harness new technologies for developing digital competences. New technologies is changing utilities working styles by the adoption of mobile apps, smart wear, , image recognition, Augmented reality, machine learning and others.
Last but not least, this session will explore How business 4.0 and the introduction of new IT developments such as of blockchain, augmented reality, AI chatbots and others, are likely to transform the water sector.

Speakers: Harsha Ratnaweera *NMBU*, Avishek Chaudhuri *Tata Consulting* Will Sarni *Water Foundry*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

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Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

PHYSICO-CHEMICAL TREATMENT NANOMATERIALS

Room 601 Technical

Chairs: Huayong Luo *China* and **Achim Ried** *Germany*

10:30 A Highly Selective and Recyclable Ammonium Adsorbent for Effective Methane Fermentation Masayuki Fujimoto *FUSO Corporation, Japan*

10:45 Synthesis of Zn0.9Fe0.1S/Ni-foam Composite Photocatalyst and its Photocatalytic Performance on NOR Degradation Guangshan Zhang *Harbin Institute of Technology, China*

11:00 Gravity-driven Chitosan-enhanced Melamine Sponge Membrane for Removal of Organics from Water Haibo Li *The University of Hong Kong, China*

11:15 Co-enhanced Permeability and Ion Selectivity Of RGO-OCNT Nanofiltration Membranes Haiguang Zhang *Dalian University of Technology, China*

INTEGRATED WATER RESOURCE PLANNING

Room 604 Technical

Chairs: Mikio Ishiwatari *Japan* and **Terry Fuller** *United Kingdom*

10:30 Removal of Mineral Oil and Polycyclic Aromatic Hydrocarbons from Highway Runoff Using Floating Treatment Wetlands Jan Ruppelt *RWTH Aachen University, Germany*

10:45 Nye - A New Sustainable and Water-wise Suburb in Denmark That Meets Half of the UN 17 SDG's Carsten Fjorback *COWI, Denmark*

11:00 Integrated Management of the Shiyang River Basin in Northwest China: History, Current Status and Prospect Tingting Yan *Development Research Center of the Ministry of Water Resources of P.R.China, China*

11:15 Evaluation of the Impacts of Human Activity on Water Quality: A Case Study in a Reservoir Catchment in Southern Taiwan Wan-Ru Chen *National Cheng Kung University, Chinese Taipei*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

NANOTECHNOLOGY / NANOMATERIAL APPLICATION

Room 601 Technical

Chairs: Esra Erdim *Turkey*
and **Alavi Moghaddam Seyed Mohammad Reza** *Iran*

13:30 Remediation of Water Samples Contaminated by BTEX Using Super-expanded Graphite as Innovative Carbon-based Adsorbent Mat Donatella Caniani *University of Basilicata, Italy*

13:45 Degradation of Zinc Oxide and Titanium Dioxide Nanoparticles by Indigenous Moderately Halophilic Bacteria in Wastewater Maggy Momba *Tshwane University of Technology, South Africa*

14:00 Highly Efficient Solar Evaporation Treatment of Industrial Wastewater by Recyclable Magnetic Nanoparticles Hongli Guo *Beijing Enterprises Water Group (China) Investment Limited, China*

14:15 Simultaneous Photocatalytic Degradation of Bisphenol a and Disinfection Using Magnetically Separable Photocatalysts Irene Man Chi Lo *The Hong Kong University of Science and Technology, China*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

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Keynote Plenary 09:00 - 09:45

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Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

BASIN-CONNECTED CITIES FORUM I URBAN PERSPECTIVES

Room 605 Forum

Chair: Claudia Sadoff *Sri Lanka*

How to improve the interaction between the city and its basin (from city representatives perspectives)?

The Basin-Connected Cities Forum will explore what actions by cities need to be taken today to achieve sustainable management of basins into the future. The Forum will be opened by Diane d'Arras, *IWA President*. The first session focuses on the transition to basin-connected cities, and a panel will be chaired by Claudia Sadoff, *IWMI* sharing experiences from Paris (Frederique Denis, *SIAAP*), Kampala (Rose Kagwaa, *National Water and Sewerage Company*), Melbourne (Kirsten Shelly, *Melbourne Water*), Tokyo (Ishida Norihiko, *Tokyo Metropolitan Government*), and cases from Suez (Mathieu de Kervenoael, Suez Environnement). This will be followed by roundtable discussions moderated by city and utility representatives from across the globe. This session will be facilitated by Katerina Schilling, *IAWD*.

RESILIENCE

Room 606 Technical

Chairs: Paul Jeffrey *United Kingdom* and **Adesola Adedugbe** *Nigeria*

10:30 Future Proofing Urban Water Systems Under Uncertainty: A Resilience Assessment Approach Christos Makropoulos *National Technical University of Athens, Greece*

10:45 A Global Service for Tailored Hydrological Climate Change Impact Assessment: Application to Floods and Drought in Tokyo Jonas Olsson *Swedish Meteorological and Hydrological Institute, Sweden*

11:00 Europe's Global Water Demand and Its Vulnerability to Weather Extremes Ertug Ercin *Water Footprint Network, Netherlands*

11:15 Planning for Deep Uncertainty: Using Adaptive Pathways to Create Resilient Strategies Chris Hertle *GHD, Australia*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

BASIN-CONNECTED CITIES FORUM II TOOLS FOR ACTION

Room 605 Forum

Chair: William Stringfellow *United States*

How to realise action that enables basin-connected cities?

The Basin-Connected Cities Forum will explore what actions by cities need to be taken today to achieve sustainable management of basins into the future. The Forum's second session focuses on the tools for actions that enables basin-connected cities including governance strategies, incentives and building capacity. The session will be led by Dr. Will Stringfellow, *University of the Pacific*, and start with a keynote by Dr. Chien-Hsin Lai, *Water Resources Agency, Chinese Taipei*. This will be followed by a panel discussion on innovative practices with experience from Jean Spencer, *Anglian Water, UK*; Eric Tardieu, *International Network of Basin Organisations*; David Hetherington, *Arup*; Matsumoto Shigeyuki, *JICA*; and Adrian Sym, *Alliance for Water Stewardship, UK*. This will be followed by roundtable discussions moderated by international organisations, development banks, government, research institutes and NGOs.

WATER STRESS DROUGHTS & FLOODS

Room 606 Technical

Chairs: Mikio Ishiwatari *Japan* and **Gertjan Zwolsman** *Netherlands*

13:30 Water Governance Lessons from The 2012-2017 Great Drought in the Brazilian Semi-arid Carlos Galvao *Federal University of Campina Grande, Brazil*

13:45 Overcoming the Challenges of Water, Waste and Climate Change in Asian Cities Steven Koop *KWR Watercycle Research Institute, Netherlands*

14:00 Smart Cross-border Reforestation: Cooperative Aerial River Management in an Age of Growing Population Wei Weng *Potsdam Institute for Climate Impact Research, Germany*

14:15 The Struggle for Water in Indonesia: Role of Women and Children as Household Water Fetcher Sri Irianti *Ministry of Health, Republic of Indonesia, Indonesia*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

Programme

Keynote Plenary 09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility
Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

Room 607 Workshop

TASTE AND ODOUR COMPOUNDS AND ALGAL TOXINS IN WATER: MANAGEMENT STRATEGIES IN AN ERA OF EXTREME CLIMATE AND URBAN GROWTH I

Chair: Arash Zamyadi *Canada*

What are utilities challenges facing taste and odour compounds and algal toxins?

Oral presentations from international leading experts will provide information about latest development in management of T&O & algal toxin related challenges in urban waters and under the influence of climate change.

Speakers: Ricard Devesa Garriga, *Aigues de Barcelona (ES)*, Tsair-Fuh Lin, *National Cheng Kung University (TW)*, Jianwei Yu, *RCEES, (CN)* and Florence Choo, *Univeristy of New South Wales, (AU)*

Room 608 Technical

WWTP & ENERGY OPTIMISATION I

Chairs: Dines Erik Thornberg *Denmark* and **Guihe Tao** *Singapore*

10:30 Sustainable SBR Treatment: Treatment Efficiency, Energy, Off-gas Emissions Aleksandra Lazic *Xylem Inc., Sweden*

10:45 Sewage Treatment Plant Capacity Tracking Tool: A Just-In-Time Planning Concept Angelique Van Walle *Unitywater, Australia*

11:00 Energy-saving Performance of Wastewater Treatment Aeration Optimizing System With Blower Pressure Computing Device Daisuke Naka *Metawater Co. Ltd., Japan*

11:15 Energy Consumption Evaluation of Urban Wastewater Treatment Based on Total Oxygen Demand: A Case Study in China Li Luo *Xi'an University of Architecture and Technology, China*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

Room 607 Workshop

TASTE AND ODOUR COMPOUNDS AND ALGAL TOXINS IN WATER: MANAGEMENT STRATEGIES IN AN ERA OF EXTREME CLIMATE AND URBAN GROWTH II

Chair: Arash Zamyadi *Canada*

What are utilities challenges facing taste and odour compounds and algal toxins?

Oral presentations from international leading experts will provide information about latest development in management of T&O & algal toxin related challenges in urban waters and under the influence of climate change.

Speakers: Jianwei Yu, *RCEES (CN)*, Florence Choo, Univeristy of New South Wales (AU) and Tsair-Fuh Lin, *NCKU (TW)*

Room 608 Technical

WWTP & ENERGY OPTIMISATION II

Chairs: Taku Fujiwara *Japan* and **Darryl Day** *India*

13:30 Fuzzy Logic Control of Biological Wastewater Treatment Process Including Greenhouse Gas Emissions Ramon Vilanova *Universitat Autonoma Barcelona, Spain*

13:45 The Application of WAS-only Thermal Hydrolysis at Psyttalia WWTP Julien Chauzy *CAMBI SAS, France*

14:00 Improving the Wastewater Treatment Plants Performances by Using Control Actions for the Sludge Line Marian Barbu *University of Galati, Romania*

14:15 On Utilization and Effect of Renewable Energy in Water Reclamation Center Toshihiko Sakakura *Tokyo Metropolitan Government, Japan*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

Programme

Keynote Plenary 09:00 - 09:45

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Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

EMERGING CONTAMINANTS & MICROPOLLUTANTS - GENERAL ASPECTS

Room 609 Technical

Chairs: **Beate Escher** *Germany* and **Daniel Gonzalez-Perez** *Spain*

10:30 Study on Behaviour of Perfluorinated Chemicals (PFCs) in the Yodo River System and Approach to These Materials in Osaka Satoshi Yoshimura *Osaka Municipal Waterworks Bureau, Japan*

10:45 Photo-Fenton & Ultrafiltration Each Coupled With Activated Carbon for the Removal of Antibiotic Resistance Determinants Stella G. Michael *Nireas-International Water Research Center, University of Cyprus, Cyprus*

11:00 Decision-Making Framework for The Prioritisation of Research Into Contaminants of Emerging Concern Stuart Khan *University of New South Wales, Australia*

11:15 Impact of Climate Change and Increasing Emission of Pharmaceuticals on Water Quality of the Rivers Rhine and Meuse (NL) Gertjan Zwolsman *Dunea N.V., Netherlands*

REUSE, RECOVER, RECYCLE - ACCELERATING RESOURCE RECOVERY FROM WATER - PART I AND II

Room 610 Workshop

Chair: **Bruno Tisserand** *France*

How to optimize water resource recovery and reuse for businesses?

This session aims to explore options to make resource recovery from waste water a reality, addressing specifically business models and regulation. In part I, regulatory framework and business model will be analysed and discussed. In part II, water sector experts will present successful case studies. The audience will be invited to reflect on related issues and contribute to the discussions through roundtables with speakers.

Speakers: Kaarina Schenk, *Swiss Federal Office for the Environment (CH)*, Christian Kabbe, *Isle Utilities and German Phosphorus Platform (DE)* and Miriam Otoo, *International Water Management Institute (LK)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

EFFICIENT MANAGEMENT OF WATER SUPPLY BY INTRODUCING PUBLIC-PRIVATE PARTNERSHIP

Room 609 Workshop

Chair: **Ikuo Milt Mitake** *Japan*

What are the keys to adapt social advancement?

Acknowledgement of styles and effects of Public-Private Partnerships (Private Involvements) in each country provide valuable information on efficient management. By pursuing efficiency, we will be able to provide high quality water with reasonable cost.

In this Workshop, we explore the efficient management patterns according to the circumstances in each country.

Speakers: *Indian Water Works Association - IWWA, (IN)*, *Indonesia Water Supply Association - PERPAMSI, (ID)*, *Korea Water and Wastewater Works Association - KWWA, (KR)*, *Malaysian Water Association - MWA, (MY)* and *Philippine Water Works Association - PWWA, (PH)*

REUSE, RECOVER, RECYCLE - ACCELERATING RESOURCE RECOVERY FROM WATER - PART III

Room 610 Workshop

Chair: **David Stuckey** *United Kingdom*

How to optimize water resource recovery and reuse for businesses?

This session aims to explore options to make resource recovery from waste water a reality, addressing specifically business models and regulation. In part III, the focus will be put on the centralised versus decentralised solutions that may shift the way we see wastewater treatment for the future. The audience will be invited to reflect on related issues and contribute to the discussions through roundtables with speakers.

Hisao Ohtake, *Japanese P-recycling Council (JP)*, Tanja Schaaf, *Outotec (DE)*, Yariv Cohen, *EasyMining (SE)* and Gilberto Garuti, *Acqua e Sole (IT)*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

Programme

Keynote Plenary 09:00 - 09:45

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Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

RECENT TRENDS IN POTABLE WATER REUSE

Room ICR
Lecture

Chair: Jörg Drewes *Germany*

How can we engineer reliable potable water reuse systems?

Potable water reuse started as pioneering efforts in Southern California and Windhoek, Namibia 50 years ago. This practice has seen tremendous growth over the last 15 years in various regions of the globe adopting the latest treatment approaches, performance control strategies, or water quality monitoring approaches. However, since reclaimed water typically poses greater technical and institutional challenges than traditional water supplies, regulators and the general public are concerned about the safety of using reclaimed water for potable reuse purposes.

This lecture will provide an overview of various potable reuse treatment approaches following the design concept of multiple barriers and the latest risk assessment strategies applied to these schemes. A critical evaluation of the water reuse systems as well as treatment combinations will be given considering actual performance results from full-scale installations. The knowledge presented can assist utility managers, design engineers, regulators, operators and researchers in their work.

BIOCLUSTER WORKSHOP: REAL-TIME ANALYSIS OF MICROBIAL COMMUNITIES - HOW CLOSE ARE WE?

Room 701
Workshop

Chair: Per Nielsen *Denmark*

Can we make reliable real-time and on-site analyses by DNA-based methods?

The BioCluster coordinates activities across the IWA Specialist Groups with focus on microbiology and ISME, the International Society for Microbial Ecology. The BioCluster Rising Star, Asst. Prof Ameet Pinto, will give the award lecture "Real-time management of the drinking water microbiome". To open the discussion, invited speakers will give talks in order to: a. Highlight latest developments, strengths, and limitations of real-time microbial community characterization with focus on Nanopore technology b. Provide a platform to connect academic expertise with industrial needs on real-time microbial monitoring.

Speakers: Tom Curtis, *Newcastle University, England*, Per Nielsen, *Aalborg University, (DK)*, Wen-Tso Liu, *University of Illinois at Urbana-Champaign, (US)*, Ameet Pinto, *Northeastern University, (US)*, Mari Miyamoto, *Nanopore, Tokyo (JP)* and Martin Andersen, *Aalborg University, (DK)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

SUPPORTING POLICY DEVELOPMENT - HOW TO LAND POLICY DECISION IN WATER & THE ENVIRONMENT

Room ICR
Workshop

Chair: Trevor Bishop *United Kingdom* and **Rob Fuller** *United Kingdom*

Good, evidenced-based policy is a culmination of a long value chain which includes good science through to the practical experience of those at the heart of delivering water, wastewater and environmental services. Translating science and practical experience into policy can, however, be frustrating and problematic. This session will provide a unique opportunity for those involved in all aspects of water science and delivery to learn and share how to influence and support future policy development.

Speakers: MK Madhavan, WaterAid (IN) and Peter Coombes, *Urban Water Cycle Solutions (AU)*

BIOCLUSTER WORKSHOP: REAL-TIME ANALYSIS OF MICROBIAL COMMUNITIES - HOW CLOSE ARE WE?

Room 701
Workshop

Chair: Tom Curtis *United Kingdom*

Can we make reliable real-time and on-site analyses of microbial communities today?
The BioCluster coordinates activities across the IWA Specialist Groups with focus on microbiology and ISME, the International Society for Microbial Ecology. The BioCluster Award winner Prof. Wen-Tso Liu will give a lecture on "Dissecting Anaerobic Digester Microbiome". To open the discussion, invited speakers will give talks in order to a. Demonstrate the strengths, limitation, and synergy between flow-cytometric and DNA sequence based characterization of microbial communities b. Provide examples from the industry and to form a platform to connect academic expertise with industrial needs on real-time microbial monitoring.

Speakers: Tom Curtis, *Newcastle University, England*, Wen-Tso Liu, *University of Illinois at Urbana-Champaign, (US)* and Claire Thom, *Scottish Water (UK)*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

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Keynote Plenary 09:00 - 09:45

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Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

Coffee Break 09:45 - 10:30

Session 1 10:30 - 12:00

EARTHQUAKE EXPERIENCE

Room 703 Technical

Chair: Hiroshi Ashida *Japan*

10:30 Damage to Kumamoto City's Sewage Treatment Facilities Inflicted by The Kumamoto Earthquake and Measures Taken Kiyoaki Nakahara *Kumamoto City Waterworks and Sewerage Bureau, Japan*

10:45 Pipeline Design Method of a Fault Crossing Section by Using Earthquake Resistant Ductile Iron Pipe Keita Oda *KUBOTA Corporation, Japan*

11:00 Construction of a Management System of "Customer Center" for Responding to Large-scale Earthquake Disasters Hisao Tanikawa *Bureau of Waterworks, Japan*

11:15 Challenge for Reinforcement of Earthquake Resistance at Earth-fill Dam With Urbanization to Vicinity of Reservoir Masaki Kato *Tokyo Metropolitan Government, Japan*

OPEN ACCESS & INNOVATIONS IN PUBLISHING

Room 801 Skills

Chair: Sara Bosshart *United Kingdom*

How has / is the publishing landscape changing and what does this mean for me as an author?

This interactive session will focus on changes and innovations in publishing with a particular focus on Open Access, emerging platforms and new technologies. Attendees will be equipped with the necessary tools to navigate and thrive in the changing landscape of publishing today.

Speakers: Xiaochang Wang, *Xi'an University of Architecture and Technology (CN)*

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

OUTBREAK & EMERGENCY RESPONSE

Room 703 Technical

Chair: Hiroshi Nagaoka *Japan* and **Simeon Kenfack** *Ivory Coast*

13:30 Taking Advantage of Workforce! - Tokyo Waterworks Program for Enhancing Crisis-Responce Capability Masayuki Yasunaga *Bureau of Waterworks, Japan*

13:45 Waterworks in Disaster-prone Japan: Mutual Support System in the Event of a Disaster Fuminori Nishu *Japan Water Works Association, Japan*

14:00 Study of Tsunami Disaster Prevention for Wastewater Facilities by Detailed Tsunami Simulation Analysis Kazuhiro Suzuki *Japan Institute of Wastewater Engineering and Technology, Japan*

14:15 Operation of Tap Water Quality Management System Aiming at Ensuring the Highest Level of Safety and Security Eiji Omori *Tokyo Metropolitan Government, Japan*

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

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Lars Therkildsen *CEO, HOFOR, Denmark*

Coffee Break 09:45 - 10:30

Session 1 08:30 - 12:00 *

Room 802
Training

INFRASTRUCTURE ASSET MANAGEMENT IN LIGHT OF ISO 5500X STANDARDS

Trainer: **Helena Alegre** *Head of the Hydraulics Department, National Laboratory for Civil Engineering, Portugal*

In a world driven by the need for water systems that 1) contribute to circular economy,2) are resilient to climate change and 3) promote equity, well-being and economic growth, effective infrastructure asset management is an essential tool. Infrastructure asset management is an art of balancing performance, cost and risk in the long term, whilst maximizing the value of these assets for the utilities. To achieve this balance, a multidimensional approach that combines management, engineering principles, good business practices and economic theory is required.

Framed by the IWA recommended approach and based on the ISO55x standards, the course will introduce key principles and practices of good asset management. Particular attention will be given to the establishment and use of a sound assessment system that is a) driven by your organisation's objectives and b) able to support the diagnosis, to set up needs and priorities of intervention, to select options of intervention, as well as for monitoring the effects of implementing them.
Registration is required

Lunch 12:00 - 13:30

Session 2 13:30 - 15:00

Room 802
Training

INFRASTRUCTURE ASSET MANAGEMENT IN LIGHT OF ISO 5500X STANDARDS

Trainer: **Helena Alegre** *Head of the Hydraulics Department, National Laboratory for Civil Engineering, Portugal*

In a world driven by the need for water systems that 1) contribute to circular economy,2) are resilient to climate change and 3) promote equity, well-being and economic growth, effective infrastructure asset management is an essential tool. Infrastructure asset management is an art of balancing performance, cost and risk in the long term, whilst maximizing the value of these assets for the utilities. To achieve this balance, a multidimensional approach that combines management, engineering principles, good business practices and economic theory is required.

Framed by the IWA recommended approach and based on the ISO55x standards, the course will introduce key principles and practices of good asset management. Particular attention will be given to the establishment and use of a sound assessment system that is a) driven by your organisation's objectives and b) able to support the diagnosis, to set up needs and priorities of intervention, to select options of intervention, as well as for monitoring the effects of implementing them.
Registration is required

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

* Timetable diverge from the main schedule

Thursday

Business Forums

Keynote Plenary 09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility
Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

09:45 – 10:30
Room 01
Business

METAWATER

Introduction of METAWATER PFI/PPP Business
Presented by: **Masashi Sakai**

METAWATER is one of the leading water and environment engineering companies in Japan. This year marks 10th anniversary. We have been designed and installed mechanical and electrical equipment in drinking and wastewater treatment plant to provide any clients with the best solution. Our various service such as EPC as a general contractor, O&M, and privatization, make a contribution to realization of more sustainable social infrastructures.

09:45 – 10:30
Room 02
Business

AQUAFLANDERS

Smart Water Systems
Presented by: **Bert De Winter**

Flanders is ready to monitor its water consumption remotely and at any time. AquaFlanders shows how Flanders will implement remote monitoring water consumption: from regulation to practice.

Water Scarcity in Flanders
Presented by: **Carl Heyrman**

As a result of the drought in 2017, AquaFlanders and its members from the Flemish water sector have set up an action plan to prevent a shortage of drinking water during the summer season.

10:30 – 11:15
Room 01
Business

BLUE FOOT MEMBRANES

Advantages of Integrated Permeate Channel Membranes (IPC®)
Presented by: **Patrick Vanschoubroek**

Integrated Permeate Channel membranes (IPC®) are the first fully back-washable flat sheet membranes. The advantages of these IPC® membranes is that they allow operating waste water units at an extraordinarily higher flux yield, with significant improved fouling control of the membranes and gives the membrane better filtration properties, but also makes it more sustainable.

10:30 – 11:15
Room 02
Business

YOKOGAWA ELECTRIC CORPORATION

Yokogawa IoT Solutions for the Problems in Municipal Water Utilities
Presented by: **Isao Mori**

In Japan, aging facilities, a shortage of skilled waterworks engineers, falling tax revenues and water sales due to depopulation will soon become serious problems. Municipal governments have been seeking solutions through public-private partnerships and regional collaboration. Yokogawa will present solutions through IoT technology and its expertise in measurement and control.

11:15 – 12:00
Room 01
Business

HITACHI ZOSEN CORPORATION

Highly Efficient Water Treatment System of HITZ
Presented by: **Junichi Mori** and **Tadahiro Moriyama**

We present our efficient water treatment system applying our original fiber media for various water treatment. The light weight of the media realizes easy maintenance and lower running cost.

We have completed the operation of the pilot plant for testing our high-efficient water treatment system in Indonesia. The data we had collected proves our system works very well.

11:15 – 12:00
Room 02
Business

TAISEI KIKO CO., LTD.

Development and Maintenance of Waterworks Infrastructure
Presented by: **Tadahiro Yamada** and **Hideto Saito**

TAISEI KIKO has pioneered Japan's water and sewage pipeline maintenance sector, continuously engaged on the frontier or technological innovation in product development and maintenance.

Evaluation of Seismic Performance on Polyethylene Pipe During an Earthquake
Presented by: **Tsuyoshi Suzuki**

On the earthquake resistance of polyethylene pipe, we report the result of verification from both aspects of investigation and experiment of pipe damaged by earthquake.

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

Plenary Room

Thursday

Business Forums

Keynote Plenary 09:00 - 09:45

The Options and Opportunities for a Big Multipurpose Utility
Lars Therkildsen *CEO, HOFOR, Denmark*

Plenary Room

12:15 – 13:00

Room 01
Business

TAISEI KIKO

Development and Maintenance of Waterworks Infrastructure
Presented by: **Tadahiro Yamada** and **Hideto Saito**

TAISEI KIKO has pioneered Japan's water and sewage pipeline maintenance sector, continuously engaged on the frontier or technological innovation in product development and maintenance.

13:30 – 14:15

Room 01
Business

SUMITOMO ELECTRIC INDUSTRIES

The features of PTFE MF/UF Membrane as Poreflon™
Presented by: **Takafumi Shinozaki**

Introduction to Poreflon™ Module, derived from porous separation membrane, developed by using proprietary processing technologies. Poreflon™ Module can be used for various applications.

TORAY INDUSTRIES

Development of the Advanced UF Differential Pressure Prediction System
Presented by: **Kazunori Tomioka**

The advanced UF simulation technology was developed to predict UF performance by acquiring on-line fouling parameters by analyzing the actual operating data of UF plant.

13:30 – 14:15

Room 02
Business

SYSTEA SPA

Easychem TOX Early Warning: On-line Water Analyzer for Acute Toxicity Measurement by Bioluminescent Bacteria
Presented by: **Luca Sanfilippo**

Easychem TOX Early Warning is an on-line analyzer for drinking water and environmental monitoring applications. The use of up to 20 industrially prepared dried bioluminescent bacteria vials, automatically rehydrated to ensure long term unattended operation down to 5 minutes frequency, coupled with its discrete analytical technology allows easy and reliable operations and low maintenance cost.

14:15 – 15:00

Room 01
Business

Room 02
Business

TSS TOKYO WATER CO., LTD.

Tokyo's Experience - 4% NRW Rate and Direct Supply
Presented by: **Dr. Atsushi Masuko**

Tokyo Water has achieved a 4% non-revenue water rate while at the same time increasing pressure in the distribution network. This allows for a direct water supply to every 3 story building in Tokyo.

Business Profiles of TSS Tokyo Water
Presented by: **Noboru Saito**

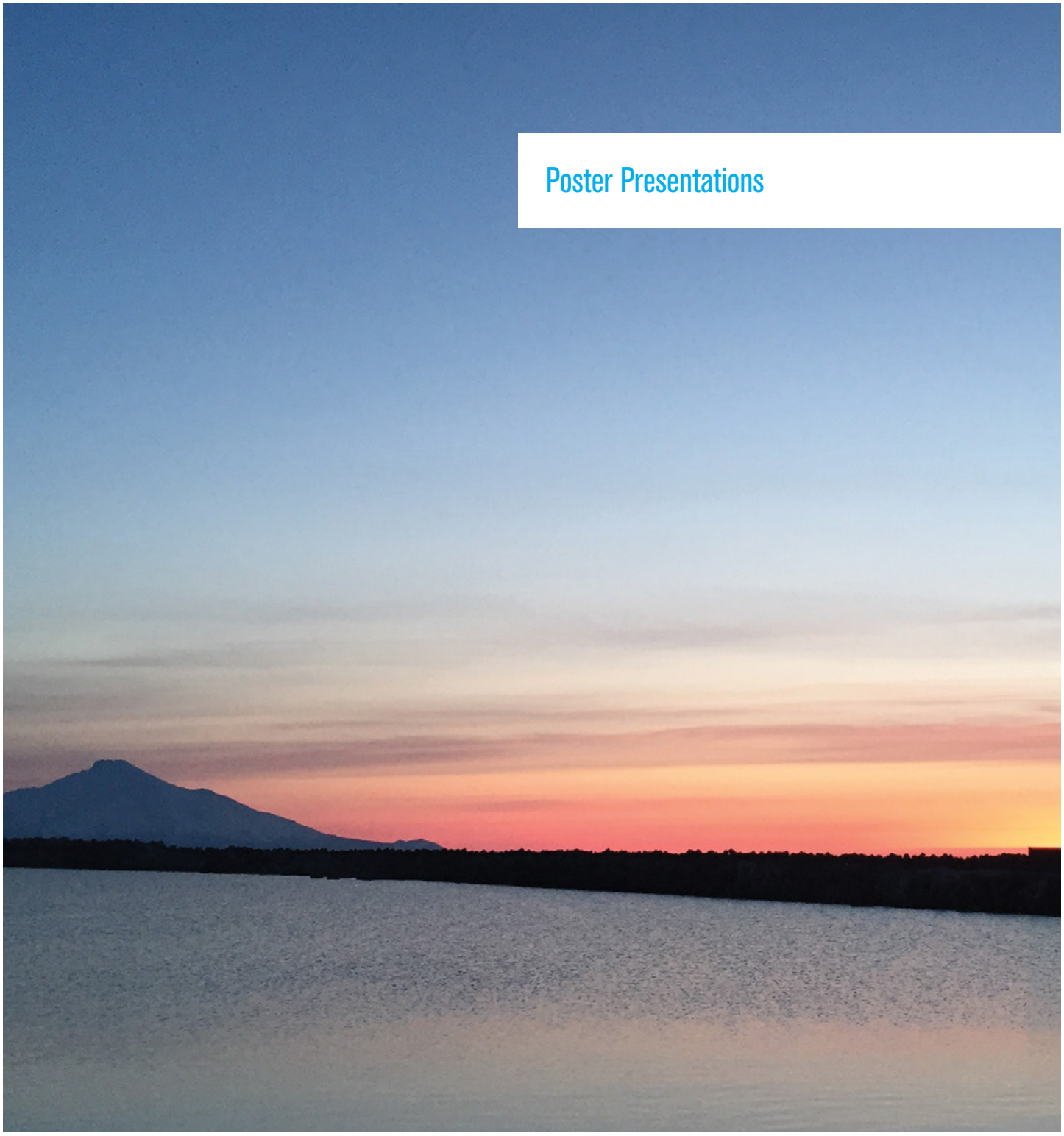
- TSS profile
- Domestic & Overseas Business
- Invitation to Our Exhibit Space

Closing Plenary 15:15 - 16:45

Including panel discussion of emerging water leaders and senior professionals to synthesise the week, best poster awards, CIWEM Environmental Photographer of the Year, signing of the IWA water-wise principles document, and handover from Tokyo 2018 to Copenhagen 2020.

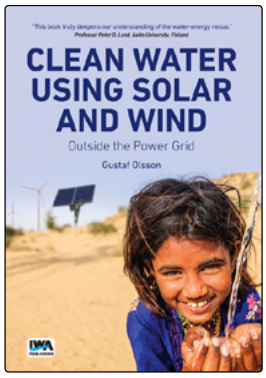
Plenary Room

Poster Presentations



Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Join Us: Book Launches at IWA Stand 115

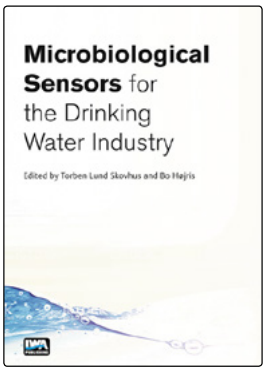


3.15pm, Monday 17th

Clean Water Using Solar and Wind: Outside the Power Grid

By Gustaf Olsson

This book encourages awareness of possibilities of solar photo-voltaic and wind, bringing both clean energy and clean water to remote and rural areas, particularly in the developing world. Two important factors are emphasized: economy and geopolitics.



3.15pm, Tuesday 18th

Microbiological Sensors for the Drinking Water Industry

Edited by Torben Lund Skovhus & Bo Højris

This new book takes a modern, interdisciplinary approach to drinking water quality monitoring by microbiological sensors. Expert insights include sensing technology, system behavior, business, legislation, and intelligent response algorithms.

12.40pm, Wednesday 19th

Manuel des Droits de l'Homme à l'Eau Potable et à l'Assainissement à l'intention des Praticiens

By Robert Bos

The French translation of this comprehensive manual, highlighting human rights principles and criteria in relation to drinking water and sanitation. It explains international legal obligations in terms of operational policies and practice that will support the progressive realisation of universal access.

Work with IWA Publishing

Leading International Publisher in Water, Wastewater and Environment

Our catalogue covers all aspects of water and wastewater treatment, management and distribution, including science, technical engineering and policy. Our dedicated team forms partnerships with our authors, helping them achieve the widest reach for their work, in print and online.

To discuss your book proposal, contact Mark Hammond: mhammond@iwap.co.uk

www.iwapublishing.com

Poster Presentations

Session 1	UTILITY EFFICIENCY AND BENCHMARKING	*Tuesday 12:00-13:15*	Room 701	1-17
Session 2	WATER & WASTEWATER PLANT PERFORMANCES & OPTIMIZATION APPROACHES	*Monday 12:00-13:15*	Room 608	21-38b
Session 3	MANAGEMENT OF EXTREME EVENTS	*Thursday 12:00-13:15*	Room 703	48-67
Session 4	EFFICIENT WATER MANAGEMENT AND REUSE	*Thursday 12:00-13:15*	Room 609	81-98b
Session 5	RESOURCE RECOVERY	*Tuesday 12:00-13:15*	Room 608	116-132
Session 6	WASTEWATER SOLUTIONS	*Monday 12:00-13:15*	Room 102	139-160
Session 7	NUTRIENT REMOVAL	*Tuesday 12:00-13:15*	Room 609	177-189
Session 8	ANAEROBIC PROCESSES	*Wednesday 12:00-13:15*	Room 609	199-215
Session 9	BIOSOLIDS MANAGEMENT & REUSE	*Tuesday 12:00-13:15*	Room 601	228-244
Session 10	MICROBIAL APPLICATIONS & EMERGING POLLUTANTS	*Wednesday 12:00-13:15*	Room 608	257-280
Session 11	ADVANCED WASTEWATER BIOLOGICAL & PHYSICOCHEMICAL APPLICATIONS	*Thursday 12:00-13:15*	Reception Hall B	312-333
Session 12	WASTEWATER TREATMENT PROCESSES	*Thursday 12:00-13:15*	Room 608	343-362b
Session 13	ONLINE MONITORING AND SENSORS FOR DRINKING WATER QUALITY	*Tuesday 12:00-13:15*	Reception Hall A	374-392
Session 14	DRINKING WATER TREATMENT	*Wednesday 12:00-13:15*	Room 607	402-418
Session 15	DRINKING WATER TREATMENT	*Tuesday 12:00-13:15*	Room 607	419-434
Session 16	MEMBRANE PROCESSES, TASTE & ODOR	*Monday 12:00-13:15*	Room 607	443-459
Session 17	DRINKING WATER SOLUTIONS	*Thursday 12:00-13:15*	Reception Hall A	465-480
Session 18	WATER SUPPLY MANAGEMENT	*Wednesday 12:00-13:15*	Room 703	487-507
Session 19	EMERGING CONTAMINANTS & WATER SAFETY PLANS	*Wednesday 12:00-13:15*	Reception Hall A	519-530
Session 20	URBAN WATER MANAGEMENT & PLANNING	*Monday 12:00-13:15*	Room 703	533-552
Session 21	TRANSITION TO SUSTAINABLE CITIES	*Wednesday 12:00-13:15*	Room 606	559-571
Session 22	URBAN DRAINAGE & SEWERAGE	*Tuesday 12:00-13:15*	Room 604	573-591
Session 23	INFRASTRUCTURE REHABILITATION	*Wednesday 12:00-13:15*	Room 701	598-606
Session 24	POLICIES & REGULATIONS	*Monday 12:00-13:15*	Reception Hall A	609-626
Session 25	WATER INDUSTRY CAPACITY BUILDING, EDUCATION & TRAINING	*Tuesday 12:00-13:15*	Room Hall B	631-642
Session 26	INTEGRATED WATER RESOURCES MANAGEMENT	*Thursday 12:00-13:15*	Room 604	646-658
Session 27	BASIN WATER MANAGEMENT & WATER QUALITY	*Thursday 12:00-13:15*	Room 606	665-679

Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
WATER UTILITY MANAGEMENT	WASTEWATER	DRINKING WATER AND POTABLE REUSE	URBAN WATER SYSTEMS	COMMUNITIES, INTEGRATED PLANNING AND THE ENABLING ENVIRONMENT	LARGE SCALE WATER MANAGEMENT

Poster Presentation:

Each author introduces the poster in a four minute long pitch. Poster sessions take place in session rooms, during lunch breaks.

Poster Awards:

Explore the poster hall and attend the poster sessions. Download and use the Congress mobile App to rate your favourite posters between Monday and Wednesday. The winners will be announced during the closing ceremony on Thursday afternoon.

1	3870520	RO	Five Years Of National Benchmarking In Romania: Lessons Learned And Future Challenges Augustin Boer *BDO Business Advisory SRL*
2	3902060	JP	Development Of Low-power Still-Image Camera Prototype For Optical Power-Feed Sewerage Multi-Sensing System Nobuhiko Kikuchi *Hitachi Ltd., Research & Development Group*
3	3912484	JP	Broad-based Water Facility Management Via Efficient Monitoring System Hidekuni Kiya *Tokyo Metropolitan Government*
4	3898945	JP	Internal Engineer's Pilot System With Open-technology-based PLC+SCADA System For Water Supply Supervisory Control Manabu Nakagawa *Nara City Enterprise Bureau*
5	3902843	SE	Renewable Energy Providing Water Gustaf Olsson *Lund University*
6	3900807	JP	Approaches To Practical Sewer Pipe Inspection Technology Using Drones, Based On Public-Private-Academic Partnership Kazuhiro Nitta *City of Yokohama*
7	3899050	JP	Comprehensible Public Information – Matters Learned Researching Public Information For Foreign Residents Yukiko Shirafuji *Yokohama Waterworks Bureau*
8	3903275	UK	Analysing The Response Of Water Distribution Networks To Failures: A Comparison Between Graph Theory And GRA Chris Sweetapple *University of Exeter*
9	3899124	JP	Non-Revenue Water Countermeasure Project In Yangon, Myanmar Akihiro Okada *TSS Tokyo Water Co., Ltd*
10	3901652	JP	The Collection System Which Achieved A High Collection Rate (99.9%) With The Largest Water Service Scale In Japan Yoshinori Sakurada *Bureau of Waterworks, Tokyo Metropolitan Government*
11	3901653	JP	24/7 Water Supply At Benamauk Area In Dili By Leak Detection And Repair Introducing Segmented Water Supply Area Yasuo Kobayashi *Chiba Prefectural Waterworks Bureau*
12	3901659	JP	An Early Detection Technique For Insufficient Flocculation Using A Floc Sensor Yusuke Hisamoto *METAWATER Co., Ltd.*
13	3901922	JP	Activities To Reduce The Non-Revenue Water In Yangon City, Republic Of The Union Of Myanmar Masaru Matsuoka *Fukuoka City Waterworks Bureau*
14	3903146	FR	CAPEX & OPEX Analysis For Water Network Performance Aurelie Chazerain *Suez*
15	3903507	JP	Enhancement Of Longevity Of Aging Pipelines In Awareness Of The Importance Of Asset Management Hiroyoshi Kaneta *Tokyo Metropolitan University*
16	3904068	PH	"Super Meter Banking" In Addressing Commercial Losses: A Case Study Of Parola In Tondo, Manila Joanna Nicodemus *Maynilad Water Services Inc.*
17	3919810	CY	Transitioning From IWS To 24x7: A Dream Or Reality Bambos Charalambous *Hydrocontrol Ltd*
18	3898441	DK	Detecting And Categorising Water Loss In Smart Districts Kristian Rokkjær *Kamstrup A/S*
19	3900577	JP	Intensified Measures To Prevent Water Leakage In Kanagawa Prefecture Masataka Morofushi *Public Enterprises Agency, Kanagawa Prefectural Government*
20	3900845	JP	Locating An Additional Unreported Burst In A DMA Yoh Sugimoto *Yokogawa Solution Service Corporation*
21	3902862	JP	An Innovative Groundwater Treatment System For Improving Performance Of Water Purification Plant In Developing Countries Thanh Trung Nguyen *Nagaoka International Corporation*
22	3899180	JP	Dynamic Control Of Nitrogen And Phosphorus Removal Under Process Variation Based On A Novel Extremum Seeking Yuta Onishi *Toshiba Corporation*
23	3900816	JP	Consideration Of The BOD Target To Meet EQSs Using Simulation Results Of BOD Behavior In The Tama River Hiroko Asakura *Tokyo Metropolitan Government*
24	3900931	JP	Full-scale Demonstration Of Novel Nitrification Control System With Feedback And Auto Calibration Feedforward Control Ichiro Yamanoi *Hitachi, Ltd. Research & Development Group*
25	3903739	JP	High Rate Turbidity Removal From High Turbidity River Water Using Newly Modified Pulsed Sludge Blanket Clarifier Yasuhiko Shimada *Organo Corporation*
26	3900999	JP	Development Of The Polymer Injection Amount Control System In A Dehydration Process Of Sludge Treatment Hiroshi Shiomi *Tokyo Metropolitan Government*
27	3901521	JP	Nodal Pressure Estimation Based On Limited Data Of Water Distribution Network So Sasaki *Toshiba Corporation*
28	3901560	BR	Evaluating The Influence Of Raw Water Quality On Treatment Cost In Developing Countries Marcelo Libanio *Federal University of Minas Gerais*
29	3901596	JP	Development Of A High-Speed Manganese Removal System Using A Fibrous Media Yuji Takahashi *JFE Engineering Corporation*
30	3903499	JP	Benefits Of Ammonia DO Control System – To Achieve Both The Water Quality Improvement And Energy Saving Yuka Midori *Tokyo Metropolitan Government*
31	3901675	JP	Stable Sewage Treatment And Efficient Operation Management In Tama Area By Utilizing Utility Tunnel Shota Hamano *Tokyo Metropolitan Government*
32	3901676	JP	Realization Of 100% Supply Of Power Consumed By The Introduction Of Small Hydroelectric Power Generation Satoru Ide *Fukuoka City Waterworks Bureau*
33	3902200	JP	Development Of Framework To Select Treatment Process Based On Evaluation Of Microbial Risk, Cost And Energy Consumption Matsuhashi Mananbu *National Institute for Land and Infrastructure Management*
34	3902208	JP	Development Of Safe And Low Cost Wastewater Reclamation System Using UF Membrane And UV Disinfection Akihiro Yamamoto *National Institute for Land and Infrastructure Management*

35	3902235	CN	Application Of Combined Ozonation And Bio-filter Process As Tertiary Treatment In WWTP Qiao Wang *Shanghai Chemical Industry Park Sino French Water Development Co., Ltd*
36	3902800	AU	Understanding The Effect Of In-sewer Iron Dosing On The Downstream Wastewater Treatment Processes Mario Jr Rebosura *The University of Queensland Advanced Water Management Centre*
37	3902806	CA	Use Of Non-woven Geotextiles As Filter Media To Improve A Water Quality Of A Lake In Quebec, Canada Catherine Mulligan *Concordia University*
38	3904080	PT	Monitoring Practices And Operating Conditions Of Drinking Water Systems - Case Study: Alcantarilha Water Treatment Plant Rui Sancho *Águas do Algarve, SA*
38b	3899094	JP	Efficient Reinforcement Method Of Ductile Pipe By Reinforcing Fitting Tadahiro Yamada *Technical Taisei Kiko Co., Ltd.*
39	3903539	ES	Identification Of Amoeba-associated Bacteria In Wastewater Samples By Amplicon-based Metagenomics José L. Alonso *Technical University of Valencia*
40	3903559	SE	Model-based Analysis Of Simultaneous Precipitation On Phosphorus Removal In Activated Sludge Systems Christian Kazadi Mbamba *Research Institutes of Sweden*
41	3901565	JP	Water Purification Treatment Effects Of Ultra-high-basicity Polyaluminum Chloride Kaoru Imai *Waterworks Bureau, City of Kawasaki*
42	3904060	BR	How Much Does It Cost To Treat Domestic Wastewater? Evaluating Operating Costs For 44 Full-scale Treatment Plants Cesar Filho *Federal University of Minas Gerais*
43	3862017	UK	Mechanical Vs Aeration Imposed Power In An Immersed Membrane Bioreactor Simon Judd *Judd & Judd Ltd/Cranfield University*
44	3901079	DE	Dynamic Aeration For Improved Oxygen Mass Transfer And Mixing In The Wastewater Treatment Process Robert Herrmann-Heber *Helmholtz Zentrum Dresden-Rossendorf*
45	3919393	BE	PHREEQC Model-based Quality Control Of A Drinking Water Softening Plant Liesbeth Verdickt *De Watergroep*
46	3898223	JP	Joint Research On Degradation Of Civil Engineering Structures In Advanced Treatment Facilities Yasukazu Tachiki *Japan Institute of Wastewater Engineering and Technology*
47	3880718	JP	Optimal Approach For Renewal Of Aged Pipes Yukihide Takamoto *Waterworks Bureau of the City of Hiroshima*
48	3890571	JP	Methods And Effects Of Securing Water Supply To Citizens Even At An Event Of Sudden Accident Kazuhisa Fujikawa *Bureau of Waterworks,Tokyo Metropolitan Government*
49	3897018	JP	Case Study On Pipeline Measure Using Earthquake Resistant Ductile Iron Pipe Against Large Fault Rupture And Landslide Takeshi Hara *Kubota Corporation*
50	3897046	JP	Reinforcement Of Earthquake-Resistance Of Air Valves Naoki Hamanaka *Bureau of Waterworks, Tokyo Metropolitan Government*
51	3899061	JP	Effectiveness Of Ductile Iron Flexible Expansion Joint To Ground Displacement Tadahiro Yamada *Taisei Kiko Co., Ltd.*
52	3900623	JP	Evaluation Analysis About The Influence Of Pipe Breakage On Water Distribution Network Due To Earthquake Disaster Takaharu Kunizane *Tokyo Metropolitan Unversity*
53	3900712	JP	Preparation Of Temporary Toilets Directly Connected To Sewers For Use In Times Of Disaster And Various PR Activities Nobuyuki Suzuki *City of Yokohama*
54	3901753	JP	To Ensure Water Supply Routes To Capital's Central Agencies At The Time Of An Earthquake Disaster Minoru Hiroshima *Bureau of Waterworks, Tokyo Metropolitan Government*
55	3901771	JP	Study On Preventing Manholes From Rising Due To Air Compression Aki Matsunaga *City of Yokohama*
56	3902161	JP	Verification Of Water Management System To Support Operation Of Water For Industrial Use Service Kazunori Matsumoto *METAWATER Co., Ltd*
57	3903460	ID	ITS-2: A Simple Synthetic Unit Hydrograph Model For Flood Estimation At Tropical Watersheds I Gede Tunas *Universitas Tadulako*
58	3906522	JP	Reinforcement Of Dam Body For Murayama-kami Reservoir –Construction Under Reservoir Operation, A Rare Instance In Japan Eiji Saito *Bureau of Waterworks, Tokyo Metropolitan Government*
59	3907424	JP	Strategic Development Of Pipeline Networks Towards Olympic And Paralympic Games Tokyo 2020 Norihiko Ishida *Bureau of Waterworks, Tokyo Metropolitan Government*
60	3919902	JP	Data Measuring Device For Water Pipe Network Keeping On Operating Even In Case Of Disaster Masashi Morita *Bureau of Waterworks, Tokyo Metropolitan Government*
61	3906703	JP	Construction Of The Response Support System For Water Quality Accidents In Water Resource Rivers Shingo Kitada *Bureau of Waterworks, Tokyo Metropolitan Government*
62	3881798	JP	Rapid Emergency Restoration Of Water Pipelines By Building A Leakage Information Gathering System Noriaki Naganuma *Bureau of Waterworks, Tokyo Metropolitan Government*
63	3897357	JP	Lessons From Different Types Of Major Earthquakes And Models To Strengthen Measures Tsunehiro Ozawa *Bureau of Waterworks*
64	3898168	JP	A Mechanism That Can Dispatch Rescue Supporting Teams Promptly And Smoothly Anytime, Anywhere A Disaster Occurs Akihiko Takei *Bureau of Waterworks, Tokyo Metropolitan Government*
65	3901475	JP	Enhancing Customer Delivery Service In Rainfall Information System (Tokyo Amesh) Naoto Suruga *Tokyo Metropolitan Government*
66	3901671	JP	Establishing A Dual Transmission System Using The Portable Pump Of An Engine Drive Yuta Mori *Sendai City Waterworks Bureau*
67	3904882	JP	System Development To Efficiently Consolidate Damage Information On Large-Scale Earthquakes And Other Disasters Mitsue Asuke *Bureau of Waterworks, Tokyo Metropolitan Government*

68	3897071	JP	Impacts Of Fuji Eruption On Water Supplies And Countermeasure Kenichi Saito *Kanagawa Prefectural Government*
69	3901898	JP	Damage To Water Supply In FY 2016 Kumamoto Earthquake And Countermeasures Akihide Nagahama *Kumamoto City Waterworks and Sewerage Bureau*
70	3901960	JP	Water Leakage Survey Conducted After The Kumamoto Earthquake Yuji Matsuoka *Kumamoto City Waterworks and Sewerage Bureau*
71	3901987	JP	Impact On Water Quality Of Tap Water Resources Caused By The Kumamoto Earthquake Kaori Yoshida *Kumamoto City Waterworks and Sewerage Bureau*
72	3902822	JP	Cavities Exploration Around The Sewage Pipe Using Multi-array Chirp Signal GPR Toshimune Imai *Kawasaki Geological Engineering Co., Ltd.*
73	3919808	CN	Recent Progress for Emergency Water Supply in China to Address Chemical Spills: Technologies, Management & Practices Chao Chen *Tsinghua University*
74	3903067	BE	Resource And Energy Recovery In Flemish Municipal WWTP's: Current Practice And Future Perspectives Marjoleine Weemaes *Aquafin nv*
75	3893490	JP	Strategic Challenge To Optimize The Maintenance Of Water Pipeline By Application Of Mapping System In Hiroshima City Rina Nakano *Waterworks Bureau of the City of Hiroshima*
76	3900953	JP	Application Of Adaptive Resonance Theory To Anomaly Prediction For Water Pumps Koji Kageyama *Hitachi, Ltd.*
77	3904140	UK	Excel Based Tool For Optimum Pump Scheduling Of Water Systems Razieyh Farmani *University of Exeter*
78	3902166	PH	Evaluating The Costs And Benefits Of Water And Wastewater Infrastructure PPPs In The Philippines Yang Villa *Metro Pacific Water*
79	3918738	MA	Cost Of Connecting And Disadvantaged Households Mustapha El Amery *ONEE Morocco*
80	3900709	JP	Establishing A Stopping Control For Small Hydropower Generation Equipment To Minimize Impact On Water Distribution Yoshiaki Hirabayashi *Waterworks Bureau,City of Kawasaki*
81	3902712	TW	The Feasibility Of Sediments From Public Water Factory Used As Agricultural Media Chung Ming Chang *Taiwan Water Corporation*
82	3900616	CN	Efficient Degradation Of Ofloxacin By Fenton-like Reaction With Sludge Derived Carbon As Catalysts Yang Yu *Nanjing Tech University*

83	3903050	CN	An Approach To Prepare Porous Carbon Nanotubes Adsorbents For Efficient Removal Of Typical Pharmaceuticals Jin Li *Tsinghua University*
84	3903166	JP	Screening Detection Of Semi-volatile Organic Chemicals In River Takashi Kameya *Yokohama National University*
85	3902805	CN	Optimal Cultivation Of Bioengineered Synechococcus Sp. PCC 7002 Using Response Surface Method Di Li *Tsinghua University*
86	3903574	SG	Electro-Fenton Technology For The Treatment Of Real Pharmaceutical Wastewater: A Feasibility Study Olivier Lefebvre *National University of Singapore*
87	3847112	JP	Application Of Sulfuric Acid Conversion Biological Desulfurization To Biogas Facilities And Siloxane Removal Yu Kawasaki *Ebara Jitsugyo Co., LTD.*
88	3899764	JP	Multiple Utilization Of Reclaimed Water Kosuke Hata *Waterworks and Sewerage Bureau, Sakai City*
89	3903359	CA	Modelling Biological Removal Of Selenium Oxyanions Rajeev Goel *Hydromantis ESS, Inc.*
90	3902420	US	Near Zero Liquid Discharge Of Beverage Plant Wastewater For Water Reuse Purpose: Pilot Scale Study Jimmy Yu *PepsiCo*
91	3902700	CN	Catalytic Ozonation With Fe2O3/SBA-15 In Aqueous Solution: Interface Synergistic Effect Of Hydroxyl Radical Formation Lei Yuan *Heilongjiang Academy of Science*
92	3919091	JP	Disposal Of Contaminated Soil-Responding To The Dioxin Special Measures Law Fuzuki Machida *Tokyo Metropolitan Government*
93	3900906	JP	Investigation On Causative Substance Of Fouling And Chemical Cleaning Effect At UF Membrane For Reclaimed Water Masanori Hayasaka *Tokyo Metropolitan Sewerage Service Corporation*
94	3904339	IL	Reduction Of Cryptosporidium Infectivity, And Microbial Indicators By Tertiary Wastewater Treatment Including Either UV Abidelfatah Nasser *Ministry of Health*
95	3902286	CN	Desalination And Reuse Of Flowback And Produced Water From Weiyuan Shale Gas Play Baicang Liu *Sichuan University*
96	3903047	CN	Decolourization Of Acid Red B By Using Fungal Pellets Of Aspergillus Niger X-5 Xuanyuan Pei *Harbin Institute of Technology*

97	3903090	JP	Study On Attitudes And Willingness To Pay For Domestic Wastewater Services: A Contingent Valuation Survey In Ho Chi Minh Truc Le *Toyo University*
98	3903938	BR	Water Reuse As An Improvement Tool For The Integrated Water Resources: A Case Study At IFMA Lucas Nascimento *The Federal Institute of Education, Science and Technology of Maranhão (IFMA)*
98b	3907520	HK	Floating Photovoltaic Panels On Reservoirs In Hong Kong Ming Kwong Wong *Hong Kong SAR Government*
99	3890309	BR	Segregation Of Solid Waste In Industry: A Sustainable Action Liliana Naval *Federal University of Tocantins*
100	3902419	CN	The Degradation Of Sulfamethoxazole In Anaerobic Sulfate-Reducing Bacteria Sludge System Hui Lu *Sun Yat-sen University*
101	3903222	KR	Algal Blooms Control Technologies In Public Waters Bokjin Lee *Korea Institute of Civil Engineering and Building Technology (KICT)*
102	3919406	CN	Low Concentrations Of Al(III) Could Cause Saturated Porous Media Clogging And Si Dissolution Dandan Zhou *Northeast Normal University*
103	4188930	CN	Comparison Of Electrochemical Degradation Of Sulfonamides With BDD And Pt Electrodes Hongna Li *Chinese Academy of Agricultural Sciences*
104	3903577	KR	Development Of PAC Loaded Covalent Organic Polymer Containing Prussian Blue For Removal Of Soluble Cesium Kim Sol *Korea Institute of Civil Engineering and Build Technology*
105	3878580	IR	Investigation Of Arsenite Removal From Drinking Water By Adsorption Onto Organically Modified Nanoclay (ONC): Optimization Hassan Masoudi *Payam Noor University*
106	3922356	CN	Performance And Characterization Of An Aminated Rosin-based Adsorbent For Removing Heavy Metals From Water Shaogang Liu *Guangxi University for Nationalities*
107	3900876	CN	In-situ Self-assembly Of Fe3O4@plant Polyphenol Particles For Microalgae Harvesting Wenyan Liang *Beijing Forestry University*
108	3903655	JP	Temporal Changes Of Total Lipid Content In Indigenous Microalgae Under Abundant And Scarce Nutrient Conditions Yugo Takabe *Tottori University*
110	3884952	CN	Integrated Ultrafiltration-Capacitive-Deionization For One-Step Water Purification Shuai Liang *Beijing Forestry University*
111	3899133	TW	An Introduction Of Wastewater Reclamation/Reuse In Taiwan Hsin-Hsu Huang *Sinotech Engineering Consultants, Inc.*
112	3901058	ZA	Use Of Acidic Mine Drainage For The Pre-treatment Of Lignocellulosic Biomass Nicholas Burman *University of the Witwatersrand*
113	3901094	JP	Study On Reuse Of Wastewater Treated Effluent And Sewage Sludge In Arid Region Satoru Oniki *NJS Consultants Co., Ltd.*
114	3901997	CN	An Investigation Of Dual-step Ozone Induced Flotation Process For Wastewater Reclamation And Microbubble-flocs Analysis Xin Jin *Xi'an University of Architecture and Technology*
115	3904052	IT	Comparative Assessment Of GAC-UV-UV/H2O2 Tertiary Treatment For Wastewater Reuse From Anaerobic And Aerobic Processes Francesco Fatone *Università Politecnica delle Marche*
116	3874332	JP	Conversion Of Sewage Sludge And Livestock Manure Into Valuable Fertilizer By Subcritical Water Treatment Reactors Jun Matsushita *Chuo University*
117	3899104	JP	Coexistence Between The Nakagawa Construction-related Soil Improvement Plant And The Local Community Daisuke Aoike *Tokyo Metropolitan Sewerage Service Corporation*
118	3901004	JP	Application Of Functional Material Derived From Biosolids As Dispersant In Contaminated Soil Purification Method Masato Endo *METAWATER Co., Ltd.*
119	3903660	DK	Harvesting Carbon In Wastewater - A Way To Optimise Energy Production And Increase The Capacity Of WWTP Jeanette Madsen *EnviDan A/S*
120	3903981	DK	WWTP Supporting Circular Economy By Utilizing Organic Waste For Biogas And Organic Fertilizer Jacob Andersen *EnviDan A/S*
121	3904081	DK	Activity Of PAO Bacteria In Anaerobic Digesters And Their Significance For P Recovery Marta Nierychlo *Aalborg University*
122	3915323	ES	Valorisation Of Sewage Sludge Through Anaerobic Digestion To Produce Volatile Fatty Acids Maria Veiga *University of A Coruña*
123	3919723	US	Resource Recovery (ammonia And Phosphate Minerals) From Wastewater Using Gas-permeable Membranes Matias Vanotti *United States Department of Agriculture (USDA)*
124	3901041	HK	Recovery Of Organic From The Sludge Of Chemically Enhanced Primary Sedimentation As A Carbon Source For Denitrification Yingyu Li *The University of Hong Kong*
125	3901673	JP	Cultivation Of Euglena By Utilizing Sewage Origin CO2 And Nutrients Hideyuki Suzuki *Euglena Co.,Ltd.*
126	3901736	DK	Perspectives And Limitations Of Hybrid Osmotic Microfiltration Bioreactor For Nutrients Recovery Mads Koustrup Jørgensen *Aalborg University*
127	3903023	HK	A Sulfide-driven Denitrifying Bioelectrochemical System For Simultaneous Sulfide And Nitrate Removal Xilling Li *The Hong Kong University of Science and Technology*
128	3902977	ZA	Growing Bio-bricks From Source-separated Urine Dyllon Randall *University of Cape Town*
129	3903296	BR	Nitrogen Doses And Humidity Variation In Microalgae Biofilm Establishment In Soil Maria Calijuri *Universidade Federal de Viçosa*
130	3903425	DK	The Billund Biorefinery - Transforming Organic Waste Streams Into Valuable Products Chitra Raju *Billund Vand A/S*

131	3903432	KR	Optimal Molar Ratio Decision For Concurrent Struvite Crystallization To Remove Phosphorus And Nitrogen Na-Ri Park *University of Science and Technology KICT School*
132	3903590	TH	Fe-struvite Recovery From Swine Wastewater And Its Application For GHGs Reduction From Paddy Field Wilasinee Yoochatchaval *Kasetsart University*
133	3903647	CN	An Overview Of Nitrogen-recovery Technologies From Source Separated Human Urine Zifu Li *University of Science and Technology Beijing*
134	3901559	AU	Phosphorus Recovery From High Rate Membrane Bio-reactor Effluent For Beneficial Use: Phosphate Fertilizer Production Saravanamuthu Vigneswaran *University of Technology Sydney*
135	3901621	AU	Gas Phase Reduction (GPR) - Maximising Energy And Nutrient Recovery From Biosolids Chris Hertle *GHD Pty Ltd*
136	3881916	FI	RAVITA- An Innovation For Phosphorus And Nitrogen Recovery From Wastewater Mari Heinonen *Helsinki Region Environmental Services Authority*
137	3904103	ES	Bioelectrochemical Treatment Of Sulfate Wastewater Towards Sulfur Recovery Juan Antonio Baeza *Universitat Autonoma Barcelona*
138	3901775	DK	Transfer From Wastewater Treatment To Circular Economy In Copenhagen Dines E Thornberg *BIOFOS*
139	3868614	US	Future-Proofing Water Resource Recovery Facilities By Embracing Disruptive Technologies Julian Sandino *CH2M*
140	3890573	JP	A Study On The Use Of A Sewage Treatment Plant As A Base For The Circulation Of Water, Materials And Energy In Watershed Toshiki Fukushima *METAWATER Co., Ltd.*
141	3901077	IT	Thermal Energy Recovery From Municipal Wastewater Treatment By An Innovative Hybrid Energy Recovering System Claudio Di Iaconi *Water Research Institute - CNR*
142	3902226	FR	Achieving Sustainable And Long Term NOB Repression For Shortcut Nitrogen Removal And Mainstream Deammonification Bruno Barillon *SUEZ, CIRSEE*
143	3902312	DE	Viability Of Two-stage Microbial Fuel Cell Operation In Paper Mill Waste Water Treatment Daniel Bastian *RWTH Aachen University*
144	3903028	JP	Model-Based Evaluation Of Discharge-Charge Repeating Effects On Electric Power Generation Of Microbial Fuel Cells Aiichiro Fujinaga *Osaka Sangyo University*

145	3903734	JP	Establishment Of National Performance Target Value For Energy Efficiency Of Sewage Sludge Incinerators In Japan Kohsuke Watanabe *National Institute for Land and Infrastructure Management*
146	3903936	DK	Higher Environmental Performance In Waste WATer Systems - HEPWAT Theis Gadegaard *Krüger A/S*
147	3895469	IR	A Novel Combined SBR/Fenton Process For The Removal Of Azo Dye AR18 And Its Aromatic Intermediates Seyed Mohammad Reza Alavi Moghaddam *Amirkabir University of Technology*
148	3898257	JP	Achievement Of Compatibility Between Water Quality Improvement And Energy Saving Ryosuke Kikuchi *Tokyo Metroporitan Government*
149	3899263	TH	Comparison Of Cell Entrapment Modes For Phenol-contaminated Wastewater Treatment Pongsatorn Taweetanawanit *Sisaket Rajabhat University*
150	3900697	JP	A Bioelectrochemical System-based Biosensor For Monitoring Biochemical Oxygen Demand In Purified Wastewater Qiaochu Liang *Kanazawa University*
151	3901656	JP	Reduction Of Energy Consumption In WWTPs Using Low Pressure Loss Membrane Diffuser Ryosuke Ono *KUBOTA Corporation*
152	3901937	JP	Automatic Control Of Full-scale Activated Sludge Processes Based On Online Oxygen Requirement Calculation Jixian Zhan *Water Agency Inc.*
153	3903443	JP	High 1,4-Dioxane Degradation Performance Of Activated Sludge Treating Industrial Wastewater Masaya Shimizu *Ibaraki Prefecture*
154	3903607	BE	Towards Improved Carbon Recovery In High-rate Activated Sludge Systems: Unravelling Flocculation Behaviour Ingmar Nopens *Ghent University*
155	3903787	JP	Effect Of Nitric Oxide Bubbling During The Stirring Process On Nitrous Oxide Production By Ammonia Oxidizing Bacteria Taishi Akagi *Nihon University*
156	3904268	JP	Improvement Of Processing Performance By Forming Granules Of Activated Sludge Kouji Kassai *Tokyo Metropolitan Government*
157	3905643	CN	Free Ammonia Pretreatment Improves Degradation Of Secondary Sludge During Aerobic Digestion Kang Song *Institute of Hydrobiology, Chinese Academy of Sciences*
158	3902102	CN	Non-monotonic Dose-response Effects On Microcystis Aeruginosa Growth Upon H2O2: Synergetic Damages In Vitro And In Vivo Tingru Zhou *Tsinghua University*
159	3902122	CN	Enhanced Growth Suppression Of Microcystis Aeruginosa Cells By Ultraviolet-C Irradiation And Hydrogen Peroxide Jie Zheng *Tsinghua University*
160	3903619	CN	Unsynchronized Production Of Microcystin And Odorous Compound In Microcystis Aeruginosa Upon UV-C Irradiation Xuejian Wang *Tsinghua University*
161	3903881	DE	PowerStep - A Real Paradigm Shift In Wastewater Treatment Processes Christian Loderer *KWB - Berlin Centre of Competence for Water*
162	3903904	DE	Enhanced Carbon Extraction - Performance Of The First Full-scale Plant In Germany Using Microsceen Technology Christian Loderer *KWB - Berlin Centre of Competence for Water*
163	3899259	IL	Energy Efficiency In Wastewater Treatment Vitaly Gitis *Ben Gurion University of the Negev*
164	3912479	CN	Resorcinol As A Highly Efficient Aromatic Electron Donor In Microbial Fuel Cell (MFCs) Lihui Yang *RCEES*
165	3915509	FR	From Biogas To Biomethane, A Path To Carbon Neutrality. An Assessment For SIAAP's Energetic Strategy Jean-Pierre Tabuchi *SIAAP*
166	3902405	PT	Modelling The Electrical Energy Consumption In Wastewater Treatment Plants Of The Águas De Portugal Group Marta Carvalho *AdP Serviços*
167	3901494	JP	Verification Of Novel Sand Collecting Methods For Use In Sewerage Treatment Hiroyuki Inaba *City of Kawasaki*
168	3903562	KR	Impact On Deammonification Performance By Mixing Ratio Of Activated Sludge, Partial Nitrifying Bacteria And Anammox Jeongmi Kim *Pusan National University*
169	3903052	UK	Energy And Carbon Footprints Differ Dramatically For Diverse Organic Substrates Fed In Wastewater Treatment Systems Xu Wang *University of Exeter*
170	3897192	JP	A Biosensor For Monitoring Biochemical Oxygen Demand In Swine Wastewater Treatment Takahiro Yamashita *National Agriculture and Food Research Organization*
171	3888246	SE	Virus-like Particles In Wastewater Treatment Plant Effluents Oskar Modin *Chalmers University of Technology*
172	3902218	ZA	Community Profiling Of An Adapted Microbial Consortia In An Autotrophic N-removal Bench Scale Reactor Kumari Sheena *Durban University of Technology*
173	3902657	ES	The Effect Of Temperature Shifts On N2O And NO Emissions From A Nitritation Reactor Treating Reject Wastewater Maite Pijuan *Catalan Institute for Water Research*
174	3902981	JP	Nitrous Oxide Emission From Activated Sludge Processes In Japan Atsuko Michinaka *National Institute for Land and Infrastructure Management*
175	3902992	CN	Performance And Microbial Community Of ISDD Process Operating Switchover From Micro-aerobic To Anaerobic Condition Xijun Xu *Harbin Institude of Technology*
176	3922348	AU	High Rate Activated Sludge (HRAS) System For Carbon Removal And Recovery From Domestic Wastewater At Short SRTs Angelica Guerrero Calderon *The University of Queensland*
177	3859372	CN	The Possible Conversion Pathway Of Substrates In Autotrophic Sulfate-Reducing Ammonium Oxidation (SRAO) System Zhen Bi *Suzhou University of Science and Technology*
178	3899114	JP	Comprehensive Approach Of Nitrogen And Phosphorus Removal In Osaka City -Centralized Treatment Of Digestion Filtrate Akio Ohta *Osaka City*

179	3900635	SG	Effect Of Nitric Oxide On Microbial Community And Activity In Anammox Enrichment Gayathri Natarajan *SCELSE, Nanyang Technological University*
180	3900860	AU	Mainstream Nitrogen Removal Via Nitrite Shunt By Sludge Treatment Using Free Ammonia Qilin Wang *Griffith University*
181	3901706	JP	Study Of Partial Nitritation-anammox Process For Mainstream Treatment Using Gel Entrapment Technology Shoko Miyamae *Hitachi, Ltd*
182	3901826	JP	Efforts Towards Improving Nitrogen Removal By Partly Making Anoxic Zone In Aerobic Part Of The Reaction Tank Naoko Tamai *Tokyo Metropolitan Government*
183	3902124	JP	A Novel Nitrogen Removal System By Combined ANAMMOX With Denitrification For High Ammonia Wastewater Treatment Ge Yongsheng *Swing Corporation*
184	3902210	JP	Nitrogen Removal And Microbial Community In Sulfate Reduction, Denitrification/Anammox And Partial Nitrification(SRDAPN) Yuka Kosugi *Kanazawa University*
185	3902823	JP	Long-term Performance Of TN Removal And Power Generation In A MFC Using An Air-cathode Covered With Nitrifying Biofilm Tomohide Watanabe *Gunma University*
186	3903613	JP	Effective Start-up Method Of Simultaneous Partial Nitritation And Anammox For Mainstream Municipal Wastewater Treatment Shigeki Takeda *METAWATER Co., Ltd.*
187	3907700	JP	Coupling Denitrification For Simultaneous NH4-N And NO3-N Removal By Anammox And Hydrogenotrophic Denitrification Tatsuru Kamei *University of Yamanashi*
188	3918985	CN	Treatment Of Rural Wastewater Using A Spiral Fiber Based Salinity-resistant Sequencing Batch Biofilm Reactor Chao Chunfang *Tianjin University*
189	3927465	JP	Demonstration Of Nitrogen Removal From Groundwater With Partial Hydrogenotrophic Denitrification (PHD) And Anammox Kenta Shinoda *University of Yamanashi*
190	3902915	CN	Advanced Nitrogen Removal Of Denitrification Filter With Corncob As Slow-release Carbon Source Di Cui *Harbin University of Commerce*
191	3903521	CN	A Nitrogen Removal Process Using An Algal-bacterial Membrane Coupled Photo-sequencing Batch Reactor (MPSBR) Guangyao Chen *Tsinghua University*
192	3903075	SG	Employing Molecular Methods To Understand The Behaviour Of Select Nutrient-removing Organisms And Genes In Two Lab-scale Ryan De Sotto *National University of Singapore*
193	3903399	JP	Nitrogen Removal From Swine Wastewater In Activated Sludge Systems Using An ASM For Continuous And Intermittent Aeration Miyoko Waki *NARO Institute of Livestock and Grassland Science*
194	3903925	IT	Influence Of N:P Ratio On The Nitrogen Removal Processes In Lab-scale Photobioreactors Treating Real Digestate Micol Bellucci *Politecnico di Milano*
195	3902748	CN	Feasibility Of Autotrophic ZVI-dependent Nitrate Reduction By Anammox Bacteria Zhen Bi *Suzhou University of Science and Technology*
196	3901908	JP	Study On Treatment Of High Concentration Waste Water Using Soil Bacteria Iwahito Takahashi *Nihon University*
197	3920312	BE	Circular Economy For Algae Control: Turning Iron Sludge Into Sorption Material For Phosphorus Removal Louise Vanysacker *De Watergroep*
198	3899039	KR	Temperature Effect On Nutrient Removal In Granular SBR With PAO And DPAO Zuwhan Yun *Korea University*
199	3868742	CN	Enhancing Sewage Sludge Anaerobic Digestion With Post-thermal Hydrolysis And Centrate Recirculation Dong Yang *Tongji University*
200	3872485	JP	Biological Ethanol Fermentation As Pretreatment For Anaerobic Digestion Of Food Waste Containing Rich Starch Yasunori Kosaki *Osaka Institute of Technology*
201	3898183	JP	Basic Investigation For Efficient Anaerobic Sludge Digestion Yoshihiro Todo *Tokyo Metropolitan Sewerage Service Corporation*
202	3899201	SE	The Presence Of Hydrogenotrophic Bacteria On Bio-cathode Improves Hydrogen Production In Microbial Electrolysis Cells Soroush Saheb-Alam *Chalmers University of Technology*
203	3900888	JP	Performance Evaluation Of Two-Stage Fermentation Treatment System With C.Cellulovorans For Paper Waste Jinyang Hu *Toshiba Corporation*
204	3901173	DE	Substrate Evaluation For Anaerobic Digestion - Conversion Of Different Substrate Analyses Johannes Effenberger *Stadtentwaesserung Dresden GmbH*
205	3901686	MX	Methane Production From Acid Hydrolysates Of Agave Tequilana Bagasse Under Thermophilic Conditions Germán Buitrón *Universidad Nacional Autonoma de Mexico*
206	3902006	CN	A Comparative Study Of Thermophilic And Mesophilic Anaerobic Co-Digestion Of Food Waste And Wheat Straw Xuchuan Shi *Tsinghua University*
207	3902896	JP	Verification Of DHS Processing Performance For Wastewater Containing High Concentration Of Floating Organic Substances Hiroaki Mikasa *FUSO Corporation*
208	3903077	CN	Potential Application Of NZVI In Rapid Anammox Activity Recovery From Oxygen Inhibition Yuan Yan *Tongji University*
209	3903395	JP	A Kinetic Model For Low PH Poisoning On Methanogenic Microorganism Meng Sun *University of Kitakyushu*
210	3903794	BR	Operational Troubles And Solution Adopted For Compartmented UASB Reactor Tsunao Matsumoto *University Estadual Paulista*
211	3904456	CN	Changes Of Microbial Community Of A Robust Denitrification Biological Filter Used For Nitrogen Removal During Operating Zhuwu Jiang *Fujian University of Technology*
212	3904481	JP	Effect Of Sulfate Addition On Mesophilic Anaerobic Digestion Of Sewage Sludge Sui Kanazawa *Kanazawa University*

213	3906565	JP	Full Scale Anaerobic Moving Bed Bioreactor (AnMBBR) For SS, Oil And Grease (O&G) Containing Wastewater Treatment Taichi Yamamoto *Organo Corporation*
214	3916098	DK	Effect Of Temperature And Total Solids Content On Anaerobic Digestion Performance At Mesophilic Conditions Bodil Lorentzen *Danish Technological Institute*
215	3904090	ZA	Characterisation Of Tannery Sludge For Anaerobic Biodegradability Oluwaseun Oyekola *Cape Peninsula University of Technology*
216	3902788	CN	Nonylphenol Affects Volatile Fatty Acids Accumulation During Anaerobic Fermentation Of Waste Activated Sludge Xu Duan *Tongji University*
217	3902834	CN	High Frequency Feeding To Enhance Methane Production From Thermophilic Co-digestion Of Food Waste And Activated Sludge Qian Li *Xi'an University of Architecture and Technology*
218	3901927	JP	Performance Of Fixed-bed Anammox Process After Long Term Suspension Caused By Kumamoto Earthquake Yoichi Watanabe *Kumamoto City Waterworks and Sewerage Bureau*
219	3901404	US	Enhanced Methane Production And Increased Archaea Diversity In Anaerobic Reactors Packed With Conductive GAC Wen-Tso Liu *University of Illinois at Urbana-Champaign*
220	3903429	JP	Super-high Solids Anaerobic Digestion Of Sewage Sludge - Effects Of Solids Content And Ammonia Stripping Masanobu Takashima *Fukui University of Technology*
221	3903678	ES	Study For Treating Food & Beverage Wastewaters Using The SIAM Technology: Nitrogen And Dissolved Methane Elimination Celia Maria Castro-Barros *Galician Water Research Center Foundation*
222	3907499	CN	Enhanced Nitrogen Removal Of Anammox Process By Anodic Ammonium Oxidation In Bioelectrochemical System Tingting Zhu *Chinese Academy of Sciences*
223	3915603	CN	Stimulated Microbial Reductive Dechlorination Of 2,4,6-trichlorophenol With Electrode Served As Available Electron Donor Xiaoqiu Lin *Harbin Institute of Technology*
224	3902265	ZA	Potential Application Of Magnetic Fields For The Retention Of ANAMMOX Biomass In Reactors Sheena Kumari Santhosh Kumar *Durban University of Technology*
225	3921051	CN	The Disruption Of DAMO & Anammox Granules And The Community Succession Liang Fu *Northeast Normal University*
226	3900462	MX	Co-digestion Of Activated Sludge Purge And Restaurant Waste For Hydrogen And Methane Generation Ivan Moreno-Andrade *Universidad Nacional Autónoma de México*
227	3900649	JP	Analysis Of Microbial Diversity Of High Temperature Waste Sludge Composting System Toshiyuki Moriya *Kyowa kako Co., Ltd*

228	3890723	CN	Effect Of CaO2 Addition On The Production Of TSCFAs During The Anaerobic Digestion Of WAS At Different Temperature Yongmei Li *Tongji University*
229	3893558	JP	Comprehensive Energy Evaluation Of Sludge From Small Wastewater Treatment Facilities For Anaerobic Co-digestion Taira Hidaka *Kyoto University*
230	3899028	JP	Power-Saving Sewage Sludge Incinerator Using A Turbocharger Yasushi Koseki *Metawater Co.,Ltd.*
231	3903031	HK	Pyrolytic Behaviour Of Activated Sludge Biomass Before And After Its Granulation Xilling Li *The Hong Kong University of Science and Technology*
232	3900684	JP	The Safety Of Composting System For Treatment Of Radiocesium-contaminated Captured Animals And Roll Wrap Silage Takahiro Yoshii *Kyowa Kako Co., Ltd*
233	3901464	JP	Demonstration Project For An Energy Management System Using Intensive Solid-Liquid Separation Technology Fumitaka Shinya *METAWATER Co., Ltd.*
234	3901508	JP	A Study Of A Chemical Mixing Method With Belt-Press Technology And Reduction Of Water Content Of Sludge Cake Tadashi Kunitani *METAWATER Co.,Ltd.*
235	3901799	JP	Construction Of Energy Self-Contained Incineration System With Ultra-low Moisture Content Type Dehydrator Daiki Watanabe *Tokyo Metropolitan Government*
236	3901856	JP	Development Of Methods To Evaluate Blockage Risk And To Prevent Its Occurrence In Sewage Sludge Incinerators Hihashi Kishimoto *Tokyo Metropolitan GovernmentComp*
237	3901863	JP	Effect Of Recycling Fibrous Materials Recovered From Sludge As A Dewatering Aid Haruo Miyake *Japan Sewage Works Agency*
238	3901951	JP	Demonstration Research On Innovative Biogas Production Process In WWTP Yasuhiro Nishimura *Kobelco Eco-Solutions Co.,Ltd.*
239	3902058	JP	Long-term Stable And Safety Storage By Drying Treatment Of Sewage Sludge In Fukushima City Hiroshi Yamakoshi *Nippon Steel & Sumikin Engineering*
240	3902306	JP	Biosolids Reuse As Fertilizer And Fuel By Advanced Dryer Of High Efficiency Using Heat Pump With Self-heat Recuperation Taichi Ota *National Institute for Land and Infrastructure Management*
241	3903614	JP	The Behavior Of Mercury And Other Heavy Metals In Sewage Sludge Mono Incinerators Yingchao Cheng *Kyoto University*
242	3903818	JP	Comparison Of DME And Bligh-Dyer Method In Lipid Extraction And Sewage Sludge Dewatering Quan Wang *Kyoto University*

243	3916555	US	The Effectiveness Of Sorbent Polymer Composite For Mercury Removal At A Full-Scale Municipal Sludge Incinerator Kwok-Wai Tsang *CDM Smith*
244	3898224	JP	Research On The Mercury Emission From Sewerage Sludge Incinerators Tamayo Hashiya *Tokyo Metropolitan Government*
245	3903305	JP	The Development Of The Conversion Technology Of The Sludge To Various Uses Using The New Dewatering And Drying System Dai Takao *Tsukishima Kikai Co., Ltd*
246	3903457	CN	Magnetic Micro-particle Conditioning-pressurized Vertical Electro-osmotic Dewatering (MPEOD) Of Activated Sludge Yili Wang *Beijing Forestry University*
247	3903695	JP	Earthworms Facilitate Attenuation Of QNr A Gene In Municipal Sludge Guangyu Cui *Gifu University*
248	3902264	NO	A Whole-Community Biosolids Management Based On Advanced Digestion Zuliang Liao *Cambi Group AS*
249	3904119	CA	Transformation And Toxicity Of Silver Nanoparticles During Sludge Conditioning And After Land Application Banu Ormeci *Carleton University*
250	3903568	JP	High-rate Nitrogen Removal Process By Using Granular Sludge Yoshiaki Hasebe *Organo Corporation*
251	3903979	DK	Calibration And Validation Of A Biofilm Model For A Pilot Scale Anammox Based Mainstream Process Chitta Behera *Technical University of Denmark*
252	3919809	JP	Influence Of Low-strength Wastewater On Aerobic Sludge Granulation And Applicability To Municipal Wastewater Masaki Miyake *Organo Corporation*
253	3878991	CN	Succession Of Microbial Communities In Response To A Ethanol Blend Fuel Release Throughout The 5-year Plume Life Cycle Jie Ma *China University of Petroleum-Beijing*
254	3900224	ES	Identification Of Pseudonocardia Sp As The Filamentous Bacteria Associated With Sludge Bulking In A Bioethanol WWTP José L. Alonso *Universitat Politècnica de València*
255	3903191	SE	Selection Forces Behind Sludge Granulation Raquel Liébana *Chalmers University of Technology*
256	3903798	KR	PCR-based Detection Of Microalgae In Nakdong River, Korea Donghyun Lee *Pusan National University*
257	3903549	KR	Formation Of Nitrifying Granules In Sequencing Batch Air-lift Reactor To Develop Continuous Process Changhyun Ryu *Korea Institute of Science and Technology*
258	3890621	JP	Microbial Population On Two Types Of Carrier In Anaerobic Fluidized Bed Reactor Under Several Operational Conditions Junta Takahashi *Swing Corporation*
259	3900614	AU	Pilot-scale Operation Of Hybrid Fixed Bed Activated Sludge System On Anaerobically Treated Wastewater Karine Wong Chon Hon *Downer*
260	3902849	JP	Full-scale Demonstration Of Innovative Sewage Treatment By DHS-MBBF System Nobuhiro Tanaka *Sanki Engineering co.,Ltd.*
261	3903281	BR	Performance Of A Biofilm Airlift Suspension Reactor With Third Tube Using For Domestic Wastewater Treatment Tsunao Matsumoto *Univ. Estadual Paulista*
262	3904046	BR	Speeding Up The Aerobic Granulation With Calcium And Sodium Alginate Jessica Xavier *Federal University Santa Catarina*
263	3905561	CA	Impact Of Food-to-microorganisms Ratio On The Settleability Of Aerobic Granular Sludge Treating High-strength Wastewater Rania Hamza *University of Calgary*
264	3884997	JP	Evaluation Of Short-Term Effects Of Increased Salinity On Carbon Utilization Of Estuarine Sediment Microbes Satoshi Soda *Ritsumeikan University*
265	3899027	JP	Expression Analyses Of Genes In Musty Odorant Cyanobacteria Rumiko Yano *Yokohama Waterworks Bureau*
266	3903921	ZA	Evaluation Of Molecular Methods For Industrial And Routine Monitoring Applications Zaakirah Delair *University of Johannesburg*
267	3904485	JP	Population Dynamics Of Algicidal Bacteria Against Dolichospermum Crassum In A Reservoir And Waterweed Zone Of A Lake Taketoshi Shimizu *Kobe City Water Works Bureau*
268	3908662	JP	Distribution Of Anaerobic Ammonium Oxidation (Anammox) Bacteria In Groundwater Of Kathmandu Valley In Nepal Mai Nakano *University of Yamanashi*
269	3901641	JP	Fate Of Endotoxin Activity In The Course Of Drinking Water Purification Process Dai Simazaki *National Institute of Public Health*
270	3901644	JP	Measures For Preventing Clogging Of Acidic Phosphorus Analyzer For Reactor Takanoni Yoshizawa *Tokyo Metropolitan Sewerage Service Corporation*
271	3902015	KR	AOP Treatment Strategies For Seasonal Occurence Of Micro Pollutants Taeyoung Choi *Xylem Inc*
272	3902281	PT	LIFE Impetus: Improving Current Barriers For Controlling Pharmaceutical Compounds In Wastewater Treatment Plants Maria João Rosa *Laboratório Nacional de Engenharia Civil*
273	3902296	CH	Retention Of Powdered Activated Carbon In Wastewater Treatment Schemes For Micropollutant Removal Rita Hochstrat *University of Applied Sciences and Arts Northwestern Switzerland FHNW*
274	3902347	DE	Status Quo Of Micropollutant Removal In Central Europe Ludwig Dinkloh *Xylem Services GmbH*
275	3902421	CA	Development Of An Efficient Integrated Technology For The Removal Of Emerging Contaminants Muhammad Faizan Khan *University of Calgary*
276	3903402	JP	Removal Of Nonylphenol And Nonylphenol Monoethoxylate From Water And Sludge Samples By Ferrate (VI) Warunee Limmun *Iwate University*

277	3903755	AU	Laccase-catalysed Degradation Of Micropollutants Of Emerging Concern By A Nanofiltration Enzymatic Membrane Bioreactor Faisal Hai *University of Wollongong*
278	3901763	DK	Advances In Measurement Of Microplastics In Wastewater - In A Danish Context Hanne Loekkegaard *Danish Technological Institute*
279	3903780	PT	Improving The Control Of Pharmaceutical Compounds In WWTPs Through The Addition Of New Waste-based Activated Carbons Maria João Rosa *LNEC – National Civil Engineering Laboratory*
280	3898178	JP	Treatment Of Organic Wastewater By Multi Stage Biofilm Treatment To Reduce Excess Sludge Production And Air Amount Kiyomi Arakawa *Ebara Jitsugyo Co., Ltd.*
281	3882122	DE	Evaluation Of Activated Carbon Produced From Wastewater Screenings Using Hydrothermal Carbonization Daniel Bastian *RWTH Aachen*
282	3902890	KR	The Performance Of Pollutants Removal Using Nonpoint Treatment Filtration Device And Analysis Of The Filter Backwashing Junho Lee *Korea National University of Transportation*
283	3902891	CN	Biosorption Behavior Of Cd(II) By EPS From Agrobacterium Tumefaciens F2 Ang Li *Harbin Institute of Technology*
284	3902943	CY	Photocatalytic Processes: Are They Effective Solar-assisted Tools For The Inactivation Of Bacteria From Wastewater? Popi Karaolia *Nireas-International Water Research Center*
285	3903119	SE	Biofilter With Granulated Activated Carbon For Resource Efficient Removal Of Micropollutants Christian Baresel *IVL Swedish Environmental Research Institute*
286	3903207	CY	Control Of Antibiotic Resistance And DNA Contamination In Wastewater Through Biological And Advanced Oxidation Processes Popi Karaolia *University of Cyprus*
287	3903482	JP	Seasonal Variation Of Rotavirus Concentration In Cultured Oysters In Japan Erika Ito *Yamagata University*
288	3903680	JP	Effect Of Nitrification Process On Fluorotelomer Alcohols Biotransformation In Activated Sludge Fumitake Nishimura *Kyoto University*
289	3903856	TW	Carbadox Transformation By Phosphonate- And Carboxylate-based Chelating Agents Mediated By Mn(III) Wan-Ru Chen *National Cheng Kung University*
290	3904676	PT	Optimization And Validation Of ASE-HPLC-FLD-DAD Method For Extraction And Analysis Of Sixteen PAH In Sewage Sludge Maria Benoliel *EPAL - Empresa Portuguesa das Águas Livres, S.A.*
291	3907522	ES	Temporal Variability And Effects Of Multiple Stressors On The Aquatic Invertebrate Community Under Semi-arid Conditions Andreu Rico *IMDEA Water Institute*
292	3915562	CN	Enhanced Bioelectroremediation Of Contaminated Sediment Through Stimulating Electroactive Degraders With Methanol Supply Aijie Wang *Harbin Institute of Technology*
293	3903900	CA	Treatment Of A Mixture Of Organic Chemicals Of Emerging Concern In Waters By Advanced Oxidation Processes Roland Leduc *Université de Sherbrooke*
294	3860673	CN	Effect Of Bamboo Charcoal Amendment To An AnMBR On The Effluent Composition And Microbial Community Of The Membrane Cake Liang Zhu *Zhejiang University*
295	3895480	UK	Clogging Vs. Fouling In Immersed Membrane Bioreactors Simon Judd *Judd & Judd Ltd/Cranfield University*
296	3900753	JP	Future Renovation Of The Nakahama Sewage Treatment Plant To MBR Shinya Nagae *Kubota Corporation*
297	3901456	JP	Upgrading The Large-scale MBR Facility For Municipal Wastewater Treatment Takahiro Suzuki *Kubota Corporation*
298	3901618	JP	Dyeing Wastewater Reuse By MBR+RO Integrated Membrane System Yukako Morita *Kubota Corporation*
299	3902803	JP	Effect Of Operating Condition Of Baffled Membrane Bioreactor (B-MBR) On Treated Water Quality And Sludge Filterability Taro Miyoshi *Maezawa Industries, Inc.*
300	3903531	TW	Biological Treatment Of DMSO-containing Wastewater From Semiconductor Industry Under Aerobic And Methanogenic Conditions Liang-Ming Whang *National Cheng Kung University*
301	3903665	ID	Effect Of Salt Concentration And C/N/P Ratio On The Performance Of Membrane Bioreactors For Treating Synthetic Produced Tjandra Setiadi *Institut Teknologi Bandung*
302	3916110	JP	Fouling Control By Activation Of Enzyme Production From Isolated Bacillus Subtilis In Membrane Bioreactor Hiroshi Yamamura *Chuo University*
303	3919216	SG	Performance Of A Pilot-scale Submerged MBR At Short Solids Retention Time For Municipal Wastewater Treatment And Reuse How Yong Ng *National University of Singapore*
304	3901862	AU	Membrane Distillation For Wastewater Reverse Osmosis Concentrate Treatment With Water Reuse Potential Gayathri Naidu *University of Technology Sydney*
305	3902170	CN	Application Of Coagulation--Ultrafiltration Hybrid Process For Fishmeal Processing Wastewater Treatment Zhengyang Gu *College of Environmental Science and Engineering, Tongji University*
306	3902395	ZA	Design, Construction And Testing Of A Laboratory Scale Membrane Distillation Bioreactor For Water Purification Kavisha Patel *University of the Witwatersrand*
307	3903199	KR	Comparative Study Of The Hollow-fiber Type Nanocomposite Membrane Imbedded With The Carbon Nanomaterials Eun-Sik Kim *Chonnam National University*
308	3903263	CA	Chemically Enhanced Fouling Mitigation In Anaerobic Membrane Bioreactor For Sustainable Treatment Of Wastewaters Kripa Singh *University Of New Brunswick*
309	3918992	TH	Integrating TiO2 Nanoparticles On Forward Osmosis Membranes For Advanced Filtration Performance Wenchao Xue *Asian Institute of Technology*
310	3903405	CN	Surface Modification Of Hydrophobic PVDF Microporous Membrane For Membrane Biofilm Reactor Dongyue Guo *Tianjin Polytechnic University*

311	3920337	CH	Using An Indigenous Plant Virus To Evaluate Virus Removal Efficiency Of A Pilot-scale Ceramic Membrane With Coagulation Jason Torrey *École polytechnique fédérale de Lausanne*
312	3901555	JP	Precedent Of The Tentative Large Scale MBR Plant And Reuse Of The Membrane Units Soichiro Yatsugi *Kubota Corporation*
313	3903721	JP	Influence Of Mixed Liquor Viscosity On Velocity Distribution Of Bubble Flow Around A Flat-plate Ceramic Membrane Module Tomoyo Noguchi *Tokyo City University Graduate School*
314	3897163	FR	Advanced MBR Integration Of Two Giant WWTP In Beijing And Paris Megacities: Huai Fang And Achères Projects Sylvain Donnaz *Suez International*
315	3903548	TH	Decolorization Of Reactive Blue 19 Wastewater By Membrane Contacting Process And Fenton Oxidation Sermpong Sairiam *Chulalongkorn University*
316	3918406	TH	Phytoremediation Potential Of Water Lilies (Nymphaea) In Decolorization Of Indigo Dye Wastewater Anurak Khrueakham *Kasetsart University Chalermphrakiat Sakon Nakhon Province campus*
317	3899060	JP	Water Purification And Desalination Using Light Energy Masahiro Fujiwara *National Institute of Advanced Industrial Science and Technology*
318	3900782	KR	Osmotically-enhanced Dewatering (OED) Process For Efficient Treatment Of Shale Gas Produced Water Seungkwan Hong *Korea University*
319	3900898	CN	Removal Of Acenaphthene From Wastewater By Pseudomonas Sp.: The Effect Of Its Extra- And Intra-cellular Substances Yongxing Qian *Zhejiang University*
320	3901474	JP	Application Of Ceramic Flat-Sheet Membrane In MBR For Municipal Wastewater Treatment Rajan Thapa Chhetri *Meidensha Corporation*
321	3901805	JP	Pretreatment Efficiency Of Biological Contact Filter On Microfiltration Membrane Facility In Drinking Water Production Sosuke Onoda *Kobelco Eco-Solutions Co., LTD.*
322	3919845	US	PACl Coagulation-Ceramic Filtration As An Advanced Water Treatment Process For Virus Removal Luisa Ikner *University of Arizona*
323	3921434	BE	Solution-diffusion Driven Transport Of Uncharged Organics In Ion-exchange Membranes Lingshan Ma *Ghent University*
324	3890655	CN	Effects Of Draw Solution Concentration And Temperature On The Performance Of Forward Osmosis Process Treating Greywater Yongmei Li *Tongji University*

325	3897085	TW	A Field Study On Characterization And Treatment Of Low Turbidity Water In Feng Yuan Water Supply Plant Guan-Yu Lin *Taiwan Water Corporation*
326	3901032	JP	Effective Management Of Deodorization Facilities Of Wet Weather Storage Tank Hiroshi Kanehara *Tokyo Metropolitan Sewerage Service Corporation*
327	3901084	CN	The Degradation Of Humic Acids Using Particle Electrodes Prepared By Ordered Mesoporous Carbon Wenyan Liang *Beijing Forestry University*
328	3903475	JP	Molecular-level Assessment Of Dissolved Organic Matter Removal By MIEX® In Drinking Water Treatment Futoshi Kurisu *The University of Tokyo*
329	3900605	JP	Dewaterability Improvement For Anaerobically Digested Sludge By Aeration Under Iron Compounds Present Katsuhiro Ohno *Swing Corporation*
330	3916043	KR	Removal Of Cr, Ni And Zn Using Powdered Activated Carbon (PAC) And Sodium Diethyldithiocarbamate-modified (SDDC) PAC Kyung-Duk Zoh *Seoul National Univeristy*
331	3868900	CN	Facile Long-Term On-Site Monitoring Of Pollutants In Water Using A Flexible, Ultra-light And Robust SERS Substrate Lu-Bin Zhong *Institute of Urban Environment, Chinese Academy of Sciences*
332	3903169	CN	Synthesis Of An Ultra-flexible Electrospun TiO2/SiO2/C Composite Nanofiberous Membrane As High-efficiency Photocatalyst Yu-Ming Zheng *Chinese Academy of Sciences*
333	3918996	SG	Metal-organic Composites For Photocatalysis Yueping Bao *Nanyang Technological University*
334	3882545	JP	Characteristics Of A Novel Nickel-aluminium Complex Hydroxide And Its Adsorption Capability Of Phosphate Ion Fumihiko Ogata *Kindai University*
335	3915483	TW	Solar Photocatalysis Of Carbofuran Rinsate Using Partial Shell-Core Ag/P3HT@TiO2 Nanocatalysts Wen-Shiuh Kuo *National United University*
336	3915518	DK	High-valuable Components From Shrimp Wastewater Are Extracted By A New Economically Efficiently Concept Bodil Lorentzen *Danish Technological Institute*
337	3915869	TW	Simultaneous Oxidation Of Phenol And Reduction Of CO2 By Means Of Electrochemical Technique Chiung-Fen Chang *Tunghai University*
338	3900656	TW	Removal Of Sulfamethazine From Aqueous Solutions By Electro-Fenton Technology Using An Activated Carbon Fiber Cathode Wei-Lung Chou *Hungkuang University*
339	3916882	TW	Performance Evaluation Of TMAH (Tetramethylammonium Hydroxide) Concentration Using Forward Osmosis Shiao-Shing Chen *National Taipei University of Technology*
340	3898998	TW	Removal Of Color And COD From Dyeing Wastewater By Simultaneous Anodic Chlorination And Electro-Fenton Oxidation Chih-Ta Wang *Chung Hwa University*
341	3899002	CN	The Catalytic Performance Of Various Cobalt-contained Bimetallic Oxide Catalysts On PMS Activation For BPA Degradation Guangshan Zhang *Harbin Institute of Technology*
342	3903440	CN	Fate Of As-loaded Nano Zero-valent Iron: Batch Study On As Remobilization Under Different Geochemical Conditions Irene Man Chi Lo *The Hong Kong University of Science and Technology*
343	3868605	US	Optimizing Energy Recovery In Large BNR Facilities Via Advanced Sludge Processing Technologies Julian Sandino *CH2M*
344	3899242	HK	Challenges In The Use Of Chlorination For Disinfection In The Largest Sewage Treatment Plant In Hong Kong Simon Tsang *Ove Arup & Partners Hong Kong Ltd*
345	3903316	ZA	Piloting A Combined Metallurgical Slag/Sugar Cane Bagasse Process For Treating Acid Mine Drainage Tamlyn Naidu *University of the Witwatersrand*
346	3903915	DK	Green Field Plant With Ambitious Goals Peter Underlin *Hillerød Utillity company*
347	3901012	HK	Final Commissioning Of The Largest Sewage Treatment Plant In Hong Kong, Harbour Area Treatment Scheme Stage 2A Simon Tsang *Ove Arup & Partners Hong Kong Ltd*
348	3902907	CN	Limitation And Potential Study On An Innovative Treatment System For The Reclamation And Reuse Of Strong Wastewater Xiaochen Chen *Fuzhou University*
349	3903839	DK	Safe Recreational Lake Waters Lotte Friis-Holm *Danish Technological Institute*
350	3915702	MY	Decentralised Greywater Treatment Module: A 2-in-1 Filtration And Disinfection System To Treat For Non-potable Use Phaik Eong Poh *Monash University Malaysia*
351	3925819	JP	Development Of Small-Volume Johkasou Nobuhiko Nishikawa *KUBOTA Corporation*
352	3901664	JP	Balancing Raw Water Quality Improvement With Conservation Of River Water Quality By Water Bypass System Hiroshi Akita *Sapporo Waterworks Bureau*
353	3903065	CN	Visualized Generator Of Wastewater Quality And Quantity Variation In A Hybrid Sewerage System Yanchen Liu *Tsinghua University*
354	3903109	JP	Reduction Of Groundwater Contamination By Introducing Regional Cyclical Model Biogas System: A Case Study In Yaese Shotaro Goto *CTI Engineering Co., Ltd.*
355	3903299	SE	New Insights On Process Performance And Stability For Anaerobic Co-Digestion Through Modelling And Population Analysis Magnus Arnell *RISE Research Institutes of Sweden*
356	3904095	BE	CFD Aided Design And Scale-up Of A Novel Baffled Membrane Bioreactor To Save Scale-up Costs And Time Usman Rehman *AM-TEAM*
357	3921379	BE	Process Schemes For Future Energy-positive Water Resource Recovery Facilities Mingsheng Jia *Ghent University*
358	3906706	JP	Production Of Serious Musty Odor In Clear Upstream River Shinichi Kimura *Tokyo Metropolitan Government*

359	3901200	DE	On-line Control For Advanced Oxidation Processes Based On UV/VIS- And Fluorescence-Spectra Achim Ried *Xylem Services GmbH*
360	3903589	CN	Influence Of Different Surfactants On Original Nanofiltration Membrane Cleaning: Performances And Properties Zhengyang Gu *Tongji University*
361	3902880	JP	Simple Fabrication Of Economically-Viable Magnetic Carbon Nanotubes-TiO2 Composite For Degradation Of Organic Pollutants Dion Awfa *Tokyo Institute of Technology*
362	3905583	CN	Hydrothermal Synthesis Of Bi12TiO20 Polyhedral Microstructure And Its Photocatalytic Degradation For Dye Pollutants Hui-Hui Gan *Zhejiang University*
363	3901044	JP	Study On Effects Of N2O Reduction In Fluidized Bed Incinerator Using Two-stage Combustion Noriaki Nakamura *City of Kawasaki*
362b	3903301	BE	Extreme Decentralization Is Essential To Drive Innovation In The Water Sector Korneel Rabaey *Ghent University*
364	3901537	PT	Implementing Decentralized Wastewater Treatment Systems In Developing Countries Based On International Best Practices Mário Santos *Águas de Portugal*
366	3903565	TH	Performance Evaluation Of Solar Septic Tank Treating Black Water Chongrak Polprasert *Thammasat University,*
367	3903597	AU	Re-engineering Waste Stabilisation Ponds For The 21st Century Anas Ghadouani *The University of Western Australia*
368	3926019	JP	Evaluation Of Shock-load Resilience Of A Down-flow Hanging Sponge Reactor For Sewage Treatment In Developing Countries Takashi Onodera *National Institute for Environmental Studies*
369	3901830	BE	Exploring The Impact Of A Compartmental Model For Hydrodynamic Description In A Plant Wide Model Usman Rehman *AM Team*
370	3903819	PT	Modelling Of Sanitary Sewer Systems Integrating Rainfall-derived Infiltration And Inflow Barbara Vieira *University of Minho*
371	3905458	CA	A New Spectrophotometry Based Method To Determine The Optimum Maturation And Activation Time For Polymers Banu Ormeci *Carleton University*
372	3900895	TW	Surface Modified Nanofiltration Membranes For Removing Iodine-disinfection By-products And Neonicotinoid Insecticides Justin Chun-Te Lin *Feng Chia University*
373	3903511	KR	Deep Learning Application For Predicting Membrane Fouling Using Real-time Fouling Images Sanghun Park *Ulsan National Institute of Science and Technology*
374	3899085	JP	Remote Inspection Of Piping Construction Utilizing Image Transmission Technology Tomohiro Suto *TSS Tokyo Water Co., Ltd*
375	3899092	JP	Control Of Residual Chlorine By The Chlorine Decrease Model During A Large-scale Rearrangement Of Distribution Naohiro Takimoto *Nagoya City Waterworks and Sewerage Bureau*
376	3900902	AU	Optimized Deployment Of Fluorescence Probes For Proactive Drinking Water Treatment Edoardo Bertone *Griffith University*
377	3901732	JP	Treating High Turbidity In Raw Water Originating From A Rapidly Flowing River Hiroshi Akita *Sapporo Waterworks Bureau*
378	3902035	JP	Development Of Water Purification Equipment With RO Membrane For Mini-scale Water Supply Facilities Haruo Hamano *SHIMIZU ALLOY MFG. CO., LTD.*
379	3897189	CN	Cotransport Of Biochar Colloids And Biochar-reducing Bacteria In Saturated Porous Media Guangfei Liu *Dalian University of Technology*
380	3883166	JP	A Simple Method For Detecting Escherichia Coli In Wastewater Using b-D-glucuronidase Fluorogenic Substrate Hisashi Satoh *Hokkaido University*
381	3899045	JP	Research Into "the Average Concentration Of Residual Chlorine" In Municipal Water Taps Daisuke Ogawa *Yokohama Waterworks Bureau*
382	3899321	KR	Detection Of Endocrine Disrupting Phthalates In Water Using Aptamer And Quantum Dots Ahjeong Son *Ewha Womans University*
383	3900592	JP	Countermeasures And Development Of Detection Methods For Cryptosporidium In Kanagawa Prefectural Waterworks Hiroo Watanabe *Kanagawa Prefectural Government*
384	3900639	JP	Online Solid Phase Extraction - Gas Chromatograph Mass Spectrometry For Monitoring Pesticide In Raw Water Tomohide Nishio *Kanagawa Prefectural Government*
385	3900792	JP	Cases Of Analysis Of Water Pollution Incident Samples In Yokohama City Akinori Komori *City of Yokohama*
386	3900834	JP	Current Status And Utilization Of Pipe Survey By Pipe Inspect Camera Takashi Aihara *TSS Tokyo Water Co., Ltd*
387	3901495	JP	Application Of The BRET Technique Coupled With Nematode Receptors To The Detection Of Musty Odorous Compounds In Water Sadamitsu Shiode *METAWATER Co.,Ltd.*
388	3901557	JP	Analysis And Evaluation Of 6 Agrichemicals With LC/MS/MS And Removal Characteristics In Drinking Water Treatment Process Minako Tanaka *Chiba Prefectural Waterworks Bureau*
389	3901591	JP	Continuous Monitoring Of Water Quality With Automatic Water Quality Monitoring Devices Yuriko Sugamura *Chiba Prefectural Waterworks Bureau*
390	3901726	JP	Consideration Of The Water Usage For Each Purpose In Households Obtained By The Surveys Yoshihisa Tanaka *Osaka Municipal Waterworks Bureau*
391	3902866	JP	Research Of Smart Water Meter Capable Of Contributing To Realization Of Sophisticated Water Control Koichi Azuma *Aichi Tokei Denki Co., Ltd.*
392	3903379	JP	Development Of An Optical Sensor For Norovirus Detection Charuka Meegoda *Hokkaido University*

393	3919258	DE	Implementing WADI - A Spatial Data Infrastructure For Data On Climate Change And Adapted Land Use In West Africa Ralf Kunkel *Research Centre Jülich*
394	3899055	JP	Algae Detection In Water By Hyper Spectral Imaging Technology Tokusuke Hayami *Toshiba Energy Systems & Solutions Corporation*
395	3900872	JP	Microbial Source Tracking Of Fecal Pollution On Kabushima Beach Utilizing Genetic Markers Junichi Yaguchi *Hachinohe College*
396	3902742	ES	Evaluation Of An Innovative Online System For Bacterial Total Activity Determination In Process And Drinking Water Xavier Bernat Camí *Cetaqua, Water Technology Center*
397	3903227	JP	Utilization Of Continuous Water Quality Monitors At Water Purification Plants Throughout Japan Koji Kosaka *Kyoto University*
398	3903627	JP	A Rapid Screening Method For Pathogenic Bacteria By Chemical Contaminants For Triathlon Swimming Games In Tokyo Bay Yutaka Kameda *Chiba Institute of Technology*
399	3903632	ZA	Detection Of Intestinal Parasites In Water And Sewage Sludge Samples Using Real-time PCR Coupled With HRM Nico Van Blerk *East Rand Water Care Company (ERWAT)*
400	3904120	DE	Role Of Citizen Science And ICTs In Safe Drinking Water In Nepal. Lessons On Water Quality Monitoring From Brazil Amrita Gautam *Technical University of Cologne*
401	3919237	SG	Microbial Electrochemical Sensor (MES) For Real-time Detection Of Heavy Metals Present In Used Water How Yong Ng *National University of Singapore*
402	3860214	TR	Removal Of Taste And Odor Causing Compounds From Istanbul's Main Reservoir's Raw Water By Peroxone Process Malhun Fakioglu *Istanbul Technical University*
403	3898860	CN	Macroporous Thermosensitive Bio-sorbent Hydrogel Beads With Interpenetrating Networks For Phosphate Adsorption Huayong Luo *Municipal Engineering*
404	3899067	TH	Screening Of Manganese-Oxidizing Bacteria From Soil And Sand Filter, Khon Kaen, Thailand Nakharin Therdkiattikul *Khon Kaen University*
405	3899069	JP	Removal Efficiency Of Formaldehyde And Chloroform Precursors By Drinking Water Treatment Tomoko Tsuruta *Osaka Municipal Waterworks Bureau*
406	3900688	JP	Influence Of Superfine Powdered Activated Carbon Dosage For Removal Of Odor Compounds To Rapid Sand Filtration Systems Naoya Ando *METAWATER Co., Ltd.*
407	3900840	JP	Comparison In Molecular Weight Fraction Removal Characteristics Of Dissolved Organic Matter In Water Treatment Kiwamu Nishimura *Swing Corporation*
408	3900896	JP	AOP Process Using Ozone And Electrolysis Seiichi Murayama *Toshiba*
409	3901208	CN	Study On The Treatment Of Micro-Polluted Source Water By Ozone-Ceramic Membrane-BAC Combined Process Yishuai Pan *Tongji University*
410	3901546	JP	Critical Issues And Proposed Solutions For Biological Activated Carbon Treatment Without Ozonation Toshiyasu Matsui *Niigata City Waterworks Bureau*
411	3901738	JP	Biological Activated Carbon Changeout Cycles At Saitama Prefectural Shin-Misato Water Purification Plant Yuma Hojo *Saitama Prefectural Public Enterprise Bureau*
412	3901850	JP	Effect Of PH On Bromate Control And THMFP And Odorous Substance Removal For Coagulation-Sedimentation And Ozonation/AOP Fumiyasu Yokoyama *METAWATER Co., Ltd.*
413	3901916	JP	Feasibility Of Water Purification Using An Upflow Biological Contact Filter In Vietnam Trang Nguyen *Kobelco Eco-Solutions Co., Ltd.*
414	3902273	DE	First Large-scale UV Crypto Barrier In Florida Ludwig Dinkloh *Xylem Services GmbH*
415	3902310	JP	Demonstration Experiment Of New Water Treatment Method By Taking Lake Kasumigaura Water (I) Takayuki Ishizaki *Ibaraki Prefectural Government Public Enterprise Bureau*
416	3902371	JP	Demonstration Experiment Of New Water Treatment Method By Taking Lake Kasumigaura Water (II) Shunsuke Takaya *Ibaraki Prefectural Government Public Enterprise Bureau*
417	3901507	CN	Sulfadiazine/ciprofloxacin Promote Opportunistic Pathogens Occurrence In Bulk Water Of Drinking Water Distribution System Haibo Wang *Chinese Academy of Sciences*
418	3903673	ZA	Out Of The Water And Into The Host: Bacterial Response To Simulated Gastric Fluid Atheesha Singh *University of Johannesburg*
419	3902500	PH	Drinking Water Production From Surface Water In Apalit, Pampanga Using Ferrate And Conventional Treatment Carla Alexis Manalo *Hiraya Technology Solutions, Inc.*
420	3902745	CN	Catalytic Ozonation With Amorphous Iron Silicate In Water: Effect Of Si/Fe Molar Ratio On Promoting Formation Of ·OH Pengwei Yan *Harbin Institute of Technology*
421	3902771	JP	Effects Of UV-LEDs Irradiation On Biofilm Formation By Pseudomonas Aeruginosa Kumiko Oguma *University of Tokyo*
422	3902804	JP	Investigation Of Introducing Upward Flow GAC Treatment To Nishiya Purification Plant In Yokohama Katsushi Maeda *KUBOTA Corporation*
423	3902916	JP	Examination Of The Advanced Oxidation Processing By The Ultraviolet Irradiation To Clean Water Hiroyuki Ichibangase *FUSO Corporation*
424	3902938	JP	Various Investigations At The Beginning Of Operation Of Iron Bacteria Treatment Masato Yano *FUSO Corporation*
425	3902970	JP	Discussion Optical Rotation Of 2-MIB Produced By Microorganisms And Mechanism Of 2-MIB Removal By Biological Treatment Mamoru Kikuno *FUSO Corporation*
426	3902998	JP	Study On Effective Arsenic Removal Method Using Coagulation Filtration Treatment On Raw Water Containing Phosphate Ions Hideki Ito *FUSO Corporation*

427	3903019	JP	Comparison Of Ozone Treatment Ability Of Two Methods And Investigation Of The Effect Of Bromide Ions On Ozone Treatment Daiki Izumi *FUSO Corporation*
428	3903466	TH	Uplifting Of Free Residual Chlorine (FRC) In Distribution System Of Bangkok Tap Water, Thailand Piphat Boribannukul *Metropolitan Waterworks Authority*
429	3906579	JP	Measures To Sudden Water Quality Contamination Accident In Tokyo Waterworks Yutaka Ichikawa *Tokyo Metropolitan Government*
430	3906723	JP	Ex-post Evaluation (Case Study Research) Of Advanced Water Treatment Facilities And Their Expansion To Water Utilities Masahiro Abiko *Bureau of Waterworks*
431	3915400	JP	Slow Sand Filtration As Sustainable Water Purification System Chiaki Isaji *Nagoya Research Institute of WA-links for Future Developement*
432	3918948	JP	Developing And Applying A Prediction Model Of Musty Odor Reduction Using Hydroxyl Radical Ct Value Yusei Kobayashi *Hanshin Water Supply Authority*
433	3919012	JP	Verification Of Adsorption Effectiveness Of Highly-Concentrated Activated Carbon In A Pulsed-Sludge Blanket Clarifier Soichi Ishiyama *Niigata City Waterworks Bureau*
434	3925842	JP	Characteristics Of 140-nm Activated Carbon Particles In Enhanced Micropollutant Removal Long Pan *Hokkaido University*
435	3901479	JP	High Recovery Coagulation-Ultrafiltration System To Treat High Turbidity Water Keisuke Takiguchi *ORGANO corporation*
436	3903277	CN	Characteristics Of Organic Precursors And Their Relationship with Disinfection By-products Jimin Shen *Harbin institute of Technology*
437	3903458	US	UV LEDs For Small System Disinfection: Review Of Long Term Performance Monitoring And Wavelength Effectiveness Karl Linden *University of Colorado-Boulder*
438	3905082	CN	Study On The Microbial Source Of Nitrosamine Precursors Chao Chen *Tsinghua University*
439	3918981	JP	Comparison Of 2-methylisoborneol Removal Of Wet-milled/Dry-milled Superfine Powdered Activated Carbon Long Pan *Hokkaido University*
440	3925723	CA	UV LED Technology: A New Solution For Point-Of-Use (POU) Water Treatment Application Fariborz Taghipour *University of British Columbia*

441	4054228	CN	Effect Of Chlorine And Ozone On The Coagulation-filtration Of Microcystis Aeruginosa As Precursors For Disinfection By-products Min Ma *Technology Institute of Beijing Waterworks Group Co., Ltd.*
442	3901453	NL	Arsenic Removal From Drinking Water By Advanced Oxidation - Coprecipitation - Filtration (AOCF) Arslan Ahmad *KWR*
443	3898156	CN	Control Of DBPs And Membrane Fouling By Hybrid Ferrihydrite/PAC-ultrafiltration Membrane System Yu Yang *Beijing Normal University*
444	3898171	JP	Development Of An Energy-saving Membrane Filtration System Utilizing Geographical Conditions Of Mountainous Area Tsutomu Shioda *Tokyo Metropolitan Government*
445	3900630	JP	Application Of Sulfuric Acid CEB To Ceramic Membrane MF System Shun Saito *Metawater Corp., Ltd*
446	3901800	JP	Novel Fouling Index Using Hydrophobic MF: Methodology And Explanation Of Its Measurement Principle By Solid-phase FEEM Masuhiro Hayashi *Swing Corporation*
447	3903412	JP	A New Nephelometric Turbidimeter And UF/MF Membrane Leakage Detector Tsutomu Kaneshima *Microtech Inc.*
448	3903473	JP	Development Of Submerged Membrane Filtration Technology For Highly Turbid Surface Water Hiroya Kodera *Wellthy Co.*
449	3903637	JP	Ageing Investigation Of Hollow Fiber Microfiltration Membrane Used In A Water Purification Plant Takashi Hashimoto *University of Tokyo*
450	3903729	DK	Microbiology Of Whey Water After UF And RO Filtration Susanne Knøchel *University of Copenhagen*
451	3900692	JP	The Report On The Causes Of Musty Odor Substance, 2-Methylisoborneol (2-MIB), In Sagami River Mineko Asano *Yokohama Waterworks Bureau*
452	3901089	JP	Investigation Of Progress Of Waterworks Bureau Project To Connect Municipal Schools Drinking Water Supply Directly Yuji Yoshino *Bureau of Waterworks Saitama City*
453	3901459	JP	Efforts Of Promoting Conversion To Water Supply System Without Receiving Tank Hideo Shiratoti *TSS Tokyo Water Co., Ltd*
454	3901472	JP	Inspection Of Receiving Tank For Maintaining Water Quality Chiaki Aoyama *TSS Tokyo Water Co., Ltd*

455	3901541	JP	UV Treatment For The Removal Of Trichloramine In Chlorinated Drinking Water And Simultaneous Water Quality Changes Satoshi Yoshimura *Osaka Municipal Waterworks Bureau*
456	3901588	JP	Initiatives To Secure Residual Chlorine Concentration Within The Target Range Masashi Yamazaki *Yokoahama Waterworks Bureau*
457	3901962	JP	Introduction Of Automatic Earthy-musty Odorants Analyzer For Raw Water Monitoring Kyoko Suzuki *Yokohama Waterworks Bureau*
458	3903241	ES	Effect Of The Filter Jugs On The Taste Of Tap Water In Barcelona Ricard Devesa-Garriga *Aigues de Barcelona*
459	3906570	JP	Analysis Of Unknown Odorous Compound With GC/MS Combined With Olfactometry Kazuki Wako *Tokyo Metropolitan Government*
460	3881839	CN	Effects Of Algal Organic Matters On Membrane Fouling In Forward Osmosis Using Interfacial Energy Theory Bingzhi Dong *Tongji University*
461	3902761	JP	Development Of Membrane Filtration System AQSEV Yasuhito Tamai *Hitachi Zosen Corporation*
462	3902886	JP	Reduction In Membrane Aeration In Submerged Hybrid Membrane Filtration System Treating Highly-colored Surface Water Taro Miyoshi *Maezawa Industries, Inc.*
463	3903063	JP	Application Of Ceramic Membrane Filtration Technology For Treatment Of Intensively-Used Surface Water Naoki Murata *METAWATER Co., Ltd.*
464	3900864	KR	Scaling And Fouling In NF Membrane For Treating Anoxic Groundwater In Managed Aquifer Recharge (MAR) Extraction Wells Chanhyuk Park *Korea Institute of Science and Technology*
465	3901924	JP	Delivery Waterworks Class Held In Malawi Hiroyuki Nozue *Yokohama Waterworks Bureau*
466	3903172	JP	Development Report Of DUV-LED Reactor Full-Scale Water Treatment Masahiro Ito *METAWATER Co., Ltd.*
467	3904766	MA	Non-conventional Processes, A Solution To Manage Water Ressources In Morocco Within The Climate Change Framework Khalid Tahri *National Office of Electricity and Potable Water*
468	3901166	DE	Advanced Online Control For Ozone-enhanced Biologically Active Filtration System For Municipal Water Reuse Achim Ried *Xylem Services GmbH*
469	3902098	JP	Virus Removal By Coagulation-ceramic Microfiltration Takashi Yonetani *METAWATER Co., Ltd.*
470	3902227	NL	Feasibility Of WWTP Effluent As Alternative Resource For Water Utility Dunea: A Technical And Client Perspective Gertjan Zwolsman *Dunea N.V.*
471	3903160	CN	Impact Of Inorganic Ions On The TCMFP And CHFP Of Different Molecular Weight Aquatic NOM Xiaoxiao Zhang *Harbin institute of Technology*
472	3903376	JP	Analysis Of Reaction Products In Chlorinated Water Containing Essential Oil Component Koji Tosa *Kanazawa Institution of Technology*
473	3903844	TW	The Potential Impacts Of Climate Change On Drinking Water Quality And Disinfection By-products Formations Gen-Shuh Wang *National Taiwan University*
474	3900618	CN	Ecotoxicity Of Gabapentin On Early Development Of Zebrafish (Danio Rerio) Yide He *Nanjing Tech University*
475	3901637	JP	Development And Verification Of Microcosm-WET Test On Basal Medium Concentration Tsuchiya Tomomi *Chiba Institute of Technology*
476	3901852	JP	Monitoring Of Pesticides In Rivers In Central And Southern Area Of Yokohama And Testing Toxicity With Daphnia Magna Manabu Sakai *Yokohama Environmental Science Research Institute*
477	3903706	JP	Comparison Of Fecal Exposure Assessment In Living Environment Between Boy, Girl And Male Adult In A Bangladeshi Slum Min Li Chua *Kyoto University*
478	3904049	MX	Risk Assessment For Indirect Potable Reuse: Case Study Of A Pilot Treatment Plant For Mexico City Ines Navarro *National University of Mexico*
479	3906783	JP	Efforts To Respond To Raw Water Quality Accidents By Regional Collaboration With Water Utilities In The Basin Area Yuki Sato *Bureau of Waterworks*
480	3907480	ES	Effects Of Imidacloprid And A Neonicotinoid Mixture On Aquatic Invertebrate Communities Under Mediterranean Conditions Andreu Rico *IMDEA Water Institute*
481	3894782	US	Enhanced Fresh Water Recovery From Brackish Groundwater RO Concentrate By A Photobiological Process And Secondary RO Keisuke Ikehata *Pacific Advanced Civil Engineering, Inc.*
482	3902884	JP	Verification Of Advanced Designed Seawater RO System For Low Energy And Operation Cost Hiroki Miyakawa *Hitachi, Ltd.*
483	3904034	SA	Biofouling Behavior In Forward Osmosis Under Variation In Water Flux Szilard Bucs *King Abdullah University of Science and Technology*
484	3895669	JP	Factors Affecting 2-MIB Concentration Fluctuation In The Serikawa Dam Reservoir Takeichiro Takahashi *Oita City Waterworks Bureau*
485	3899211	IL	Four Ways To Improve The Performance Of Low-Cost Ceramic Filters For Household Water Treatment Vitaly Gitis *Ben Gurion University of the Negev*
486	3903784	IL	Enhancing Biodegradability And The Effect Of Ozonation In An Ozonation-sSAT System Intended For Indirect Potable Reuse Haim Cikurel *Environmental Engineering Services*
487	3898741	MX	The Water From The Perspective Of A Risk Management; A Public Agenda That Builds Infraestructure For Disaster Prevention Roger Esparza *Instituto Tecnológico Superior de Valladolid*
488	3901607	JP	Development Of A New Type Tube Settler To Suppress Sedimentation Sludge To The Upper Portion Of The Tube Settler Hirokazu Goto *Metawater Corp., Ltd*

489	3902224	JP	Household Water Treatment Practice At Rural Areas Of Myanmar And Their Perception To New Treatment Technologies Hiroshi Sakai *Tokyo Metropolitan University*
490	3890712	JP	Reestablishment Of Water Supply System In A Depopulation Society And Research Needs Sadahiko Itoh *Kyoto University*
491	3904824	JP	Characteristics Of Suspended Solids And Their Loads Into Water Distribution System Under Different Treatment Processes Tomohiro Nakanishi *Kyoto University*
492	3893680	JP	Seismic Performance Evaluation Of The First Earthquake-Resistant Ductile Iron Pipe In Japan (After Serving For 38 Years) Yasutaka Uchimiya *Hachinohe Regional Water Supply Authority*
493	3900641	JP	Analysis Of Foreign Substances Found In Tap Water Ken-Ichi Ogura *Okayama City Waterworks Bureau*
494	3901783	DK	Commissioning Of New Drinking Water Pipes - The Role Of Biofilms In The Distribution Network Torben Lund Skovhus *VIA University College*
495	3902046	JP	Innovative Solution To Large Ground Displacement -Steel Pipe For Crossing Fault Hayato Nakazono *JFE Engineering Corporation*
496	3903002	TW	Using HPSEC And F-EEM Analysis To Identify Of Organic Characteristic In Drinking Water Distribution System Chun Hsi Lai *National Cheng Kung University*
497	3903536	KR	A Study On Optimal Rechlorination Dosages Considering Residual Chlorine And Trihalomethanes In Water Distribution System Bobae Jeong *University of Seoul*
498	3907413	JP	Direct Water Service System To Super High-rise Buildings And Situation Of Introduction Thereof Atsushi Tomaru *Tokyo Metropolitan Government*
499	3893762	JP	Securing Drinking Water After Earthquakes: Preparation Of Small-scale Emergency Water Supply Tanks Toshiyuki Shimoda *Bureau of Waterworks, Tokyo Metropolitan Government*
500	3900797	JP	Constructing A Disaster Relief System For Sharing Information During Disasters Akira Sasaki *Morioka City Waterworks & Sewerage Bureau Waterworks*
501	3901693	JP	Distribution Pipe Renewal In Sapporo Hiroshi Akita *Sapporo Waterworks Bureau*
502	3902043	JP	The Progress In Temporary Wastewater Treatment Process During Post-Disaster Reconstruction Hikaru Nishizaka *Sendai City Government*
503	3900851	JP	Efforts After The Great East Japan Earthquake And The Current Situation Yuya Oshikiri *Sendai City Waterworks Bureau*
504	3901955	JP	Emergency Water Supply At The Time Of Disaster ¯Based On The Cooperation Among Local Governments And Residents Kayo Arai *Tokyo Metropolitan Government*
505	3901549	JP	Safety Measures Led By Tokyo Waterworks Action Plan To Prevent Waterworks Construction Accidents Tadaharu Mizuguchi *Tokyo Metropolitan Goverment*
506	3902089	JP	Construction Of Diameter Expansion Segment Utilizing A Freezing Method At Great Depth Junki Tamura *Tokyo Metropolitan Government*
507	3902300	JP	How To Communicate With Neighboring Residents When Dealing With Emergencies (the Case Of The Fukushima NPP Accident) Norio Kamei *Mitsubishi Research Institute Inc.*
508	3903122	SA	Impact Of Distribution And Network Flushing On Bacterial Communities Of Drinking Water Distribution Systems Johannes Vrouwenvelder *King Abdullah University of Science and Technology*
509	3890537	JP	Reduction Of Generation Of Trichloroacetic Acid By Using Contact Filtration With Manganese Sand Yuki Kado *Waterworks Bureau of the City of Hiroshima*
510	3901567	JP	The Characteristics Of Disinfection By-products Of The Effluent Water From The Wastewater Treatment Plants In Kyoto City Ko Hosoda *Kyoto Municipal Waterworks Bureau*
511	3904879	JP	Effect Of Biodegradation On Haloacetic Acid Formation Potential Of Anthropogenic Compounds During Chlorination Jose Cordero *Kyoto University*
512	3903055	SG	Assessment Of Methyl-triclosan's Influence On Biological Pathway In Zebrafish Embryos Using MS-Based Metabolomics Ryan De Sotto *National University of Singapore*
513	3903807	JP	Detection Of Retinoic Acid Receptor Antagonistic Activities In Sagami River In Japan Using A Yeast Two-hybrid Assay Kazuko Sawada *Kitasato University*
514	3898902	MX	Inhibitory Effect Of Antimony On The Microorganisms Activity In Biological Wastewater Treatment Ivan Moreno-Andrade *Universidad Nacional Autónoma de México*
515	3903866	ZA	Rapid And Specific Detection Of Waterborne Pathogens Using Real-time PCR And High Resolution Melt (HRM) Analysis Nico Van Blerk *East Rand Water Care Company (ERWAT)*
516	3899041	JP	The Damage Of Water Service Facilities By The Great East Japan Earthquake Shinsuke Masuda *Japn Water Plumbing Engineering Promotion Foundation*
517	3904959	JP	Countermeasures Against Power Failure Of Water Supply Facilities Tatsuo Okamoto *Kanagawa Prefectural Government*
518	3902527	GR	Developing A Stress-testing Platform For Cyber-physical Water Infrastructure Christos Makropoulos *National Technical University of Athens*
519	3900628	CN	The Impact Of Graphene Oxide On Anaerobic Digestion Of Waste Activated Sludge Jing Sun *Tongji University*
520	3900911	PT	Measurement Of A Wide Range Of Pharmaceutical Compounds In Wastewater Influents By SPE-LC-MS/MS Joao Rodrigues *EPAL - Empresa Portuguesa das Águas Livres, S.A.*
521	3902374	JP	Field Study Of Oseltamivir (Tamiflu) In The Tamagawa River Watershed Areas Akifumi Abe *Waterworks Bureau, City of Kawasaki*
522	3903170	CN	Study On Critical Coagulation Concentration Evolution And Removal Of Co-contaminants Of Metal Oxide Nanoparticles Chunpeng Zhang *Jilin University*

523	3901365	JP	Potential Impact Of Antibiotic Contamination On Enhancement Of Antibiotic Resistance In Lake Environment Sorn Sovannlaksmy *Kanazawa University*
524	3903768	JP	Search Of Bacteria Resistant To Three Kinds Of Antibiotics In Activated Sludge For Municipal Wastewater Treatment Toru Watanabe *Yamagata University*
525	3904884	JP	Environmental Externalities Considerations In Water Prices Of Different Options Inside Kathmandu Valley Rajit Ojha *University of Yamanashi*
526	3905545	JP	Promotion Of Water Service System To Taps In Elementary And Junior High Schools Shoichi Akima *Tokyo Metropolitan Government*
527	3901499	JP	Development of Water Force Reduction Instrument for Drainage of Pipelines Flushing Water to Rivers Genki Tashiro *Yokohama Waterworks Bureau*
528	3902333	MA	Water Safety Managing: Lessons Learned And Perspectives. Case Study: Conventional Treatment Plant Daourat Morocco Abdelaziz Zouhir *National Office of Electricity and Drinking Water*
529	3902936	TH	Water Safety Plans In Thailand - Current Situation And Future Directions Amporn Chantawibul *Bureau of Food and Water Sanitation*
530	3904133	PT	Technological Platform For Catchment Water Safety Planning Jose Vieira *University of Minho*
531	3901941	ES	Removal Of Antibiotics And Antibiotic Resistance Genes By Full-Scale Sulfate Radical Based Advanced Oxidation Processes Javier Marugán *Universidad Rey Juan Carlos*
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534	3849001	TW	Evaluation Of Greenhouse Gas Emissions From Water Supply System And Its Environmental Cost Ying-Chu Chen *National Taipei University*
535	3907437	JP	Challenge To Effective Drought Measures By Utilizing A New Artificial Rainfall Device Hideki Hashimoto *Tokyo Metropolitan Government*
536	3901406	DK	WISE Innovation In Urban Water Systems Of Copenhagen Berit Godskesen *Technical University of Denmark*
537	3903017	ES	Global Change Impact On An Urban Wastewater Treatment System And Its Receiving River Ecosystem Lluís Corominas *Catalan Institute for Water Research*
538	3901636	JP	Improvement Methods Of The Environment For Various Organisms To Restore Capacity To Purify Water In Urban Coastal Waters Tatsuya Ichikawa *City of Yokohama*
539	3901760	JP	Study On The Fiscal Condition Of Japanese Water Utilities In The Depopulation Era By Use Of Fiscal Simulation Model Katsu Yamazaki *Pacific Consultants Co., Ltd.*
540	3902740	KR	Development Of A Low Impact Development (LID) Practice Tool Using A SWMM-HYDRUS Linked Modelling Approach Sangsoo Baek *Ulsan National Institute of Science and Technology*

541	3903315	SE	The Inclusion Of Hydraulic Models As Part Of The Trace Methodology For Detection Of Contaminants In The Water Network Susanne Steen Kronborg *VA SYD*
542	3878700	JP	Establishment Of Website Enabling Pay-as-you-go Credit Card System To Be Used For Water Charge Payments Masami Niwasaki *Public Utility Services Center Co., Ltd.*
543	3899726	JP	Demonstrative Experiments On Wireless Automated Meter (Smart Meter) Reading System For Water And Gas Dai Kakinuma *Yokohama Water Works Bureau*
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545	3902524	DK	Using Distributed Rainfall From Local Radar Systems For Planning And Decision Making In Copenhagen, Denmark Anders Breinholt *HOFOR A/S*
546	3927045	JP	The Demonstrative Test Of Wireless Communication For Efficiency Of Meter Inspection Akira Tomita *Osaka Municipal Waterworks Bureau*
547	3900768	JP	Renewable Energy Control Model For Water Distribution Main Telemeters Nobuhiko Atsumi *Tokyo Metropolitan Government*
548	3902056	JP	Development Of A Simple Analytical Method For Determination Of Arsenite Using A DNA Aptamer And Gold Nanoparticles Koji Matsunaga *Hokkaido University*
549	3903332	FR	Monitoring And Sampling Methodology Of Source Control Systems For Environmental Assessment In Lyon, Nantes And Paris Robin Garnier *Laboratory DEEP, INSA LYON*
550	3900583	JP	Evaluation Of Durability Of Water Distribution Reservoir With The Reinforced Concrete Structure Utilized For 90 Years Ichiro Okado *Tokyo Metropolitan Government*
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553	3902341	SE	Future City Flow - A Decision Support System For Long And Short Term Planning And Operation Of Urban Wastewater System David I'Ons *Gryaab AB*
554	3903358	PT	Modelling Construction Costs Of Water And Wastewater Treatment Works Nuno Broco *Águas de Portugal Serviços Ambientais*

555	3915534	FR	The Greater Paris Sanitation Master Plan, The Benefits Of A Participative Approach Jean-Pierre Tabuchi *SIAAP*
556	3901120	JP	Examination Of Water Supply Distribution Network With Regard To Waterworks Facilities Reconstruction In Saitama City Yuji Yoshino *Saitama City*
557	3899003	JP	Future Direction Of Meter Reading Inferred From Renewal Of Automated Meter Reading System Megumi Endo *Nagoya City Waterworks and Sewerage Bureau*
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559	3880679	JP	A New Way Of HRD That Contributes To The Construction Of Sustainable Water Supply Facilities In Low-income Countries Naoki Ueno *Tokyo Metropolitan Government*
560	3898216	JP	World's First Spiraling Double Shield 90° To Lay Trunk Sewer Under Narrow River Tsukasa Yoshiike *Tokyo Metropolitan Government*
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562	3901579	JP	Technical Cooperation In Yangon City In Myanmar Keizo Watanabe *Fukuoka City Waterworks Bureau*
563	3901614	JP	Development Of Sulfuric Acid-Resistant Concrete With Added Sewage Sludge Incineration Ash Tomofumi Uchida *Tokyo Metropolitan Sewerage Service Corporation*
564	3901724	JP	Rehabilitation Of Aged Sewerage Pipelines In Central Tokyo Case Of Ginza Area Koki Saito *Tokyo Metropolitan Government*
565	3902100	DK	The Climate City - Urban Development By Climate Adaptation Pernille Svane *Middelfart Municipality*
566	3902984	IE	Towards Sustainable Water-wise Cities: Reusing Waterworks Residues For Wastewater Treatment Plant Odour Control Baiming Ren *University College Dublin*
567	3903733	JP	Promotion Of Tama Waterworks Operation Plan 2017 Towards Resilient And Reliable Wide-Area Waterworks Makoto Kakinuma *Tokyo Metropolitan Government*
568	3905628	JP	Factor Analysis Of Water Rate Revisions (External Factors And Internal Factors) Yoichi Ichimura *Tokyo Metropolitan Government*
569	3905527	JP	Toward Construction Of A More Resilient Large-scale Waterworks System Yuichiro Sato *Tokyo Metropolitan Goverment*
570	3899210	JP	Pipeline Construction With Consideration For Environment Preservation Madoka Fukui *TSS Tokyo Water Co., Ltd*
571	3901824	JP	Underground Connecting Of 4 Great Depth Caissons At The Construction Works Of A Stormwater Pumping Station Takumi Fukuda *Tokyo Metropolitan Government*
572	3903872	FR	Micropollutants Removal Efficiency Of Stormwater Control Measures: Comparison Of Centralized VS Source Control Systems Robin Garnier *Laboratory DEEP, INSA LYON*
573	3890625	JP	Our Efforts For Technical Transfer For Sewerage Development Project In Malaysia Seiko Hayashida *Tokyo Metropolitan Sewerage Service Corporation*
574	3898188	JP	Study On Reliable Control And Management System For Sewage Flow Rate Shinji Arao *Matsue Kohgyo Technical College*
575	3899181	JP	Verification On Corrosion Of Multistory Manhole Hiroki Hayashi *Tokyo Metropolitan Sewerage Service Corporation*
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579	3901649	JP	Sewage Works Reconstruction Data Book Akira Kuronishi *Tokyo Metropolitan Sewerage Service Corporation*
580	3901750	JP	Yokohama Station Area Public-Private Partnership Flood Control Hideaki Murakami *City of Yokohama*
581	3901807	JP	Countermeasures Against Odor From Building Pit -Towards A Pleasant Environment In Tokyo Aki Yoshihara *Tokyo Metropolitan Government*
582	3901984	JP	Promoting Earthquake Resistance Of Sewer Pipelines With The Non-open-cut Method (Achievements In The Asakusa District) Shinya Tanida *Tokyo Metropolitan Government*
583	3902180	JP	Improving Water Quality In Enclosed Water Body After Switching Pump Stations Kie Ueda *Tokyo Metropolitan Goverment*
584	3901533	JP	Water Quality Improvement By Reducing Inflow Load In The Inner Moat Of The Imperial Palace Kazuki Omori
585	3903142	CN	Transmission Process of Hydrogen Sulfide and Methane Gas in Sewers: Field Trials in China Zhiqiang Zuo *Tsinghua University*
586	3916900	JP	Problems Of Prefectural Sewage Works Associations Concerning Workshops On House Sewers, Etc. And Support Operations Masaru Moriyama *Tokyo Metropolitan Sewerage Service Corporation*
587	3872085	DK	New Holistic Stormwater Approach - Planning And Implementing As A Trans-disciplinary Team, With High Citizen Inclusion Martin W. Soerensen *VCS-Denmark*
588	3901980	HK	A Prototype Trial In Hong Kong For Increasing Ecological Sustainability In Urban Drainage System Edwin Lau *The Government of HKSAR*

589	3902067	JP	Improvement Of Water Quality Of Rivers Flowing Through The Center Of Tokyo Improvement Case Of Combined Sewer System Mariko Kuno *Tokyo Metropolitan Governmemt*
590	3915892	MX	Monitoring Of Rainwater Catchment Systems For Domestic Consumption: The Case Of Metropolitan Zone Of Guadalajara Jose Gleason *University of Guadalajara*
591	3901949	JP	Production Of Sodium Hypochlorite During Landfill Leachate Treatment And Reuse As Disinfectant For Sewerage Treatment Ami Zaizen *Swing Corporation*
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593	3901113	JP	Prediction Accuracy And Effectiveness Of ICT Operation Support System For Urban Flood Control Facilities Yusuke Sakae *NJS CO., LTD.*
594	3901603	HK	Silent Shields - A Saga Of Three Drainage Tunnels In Hong Kong Yiu Man Fung Yiu-Man *Drainage Services Department*
595	3903430	CN	How Effective Are Optimization Tools Applied To Urban Drainage Adaptation: Comparison Of Methods And Parameter Settings Qi Wang *Guangdong University of Technology*
596	3905716	JP	Research On Utilization Of Case-based Modeling Survey Jun Shinozaki *Japan Institute of Wastewater Engineering and Technology*
597	3906041	BR	Evaluation Of The Operation Of Detention Reservoirs In The Federal District, Brazil Clarice Silva *University of Brasília*
598	3882550	JP	Investigational Research Into Pipeline Facility Inspections / Survey Plan Preparation And Risk Assessment Studies Kohji Shimada *Japan Institute of Wastewater Engineering and Technology*
599	3900846	JP	Relocation Of Existing Water Purification Plant: For Sustainable Supply Of Drinking Water Takahiro Kawauchi *Chiba Prefectural Waterworks Bureau*
600	3901566	JP	Technology Of Making Existing Manholes Earthquake Resistant By Non-Excavation Method Kazuhiro Hosomi *Tokyo Metoropolitan Sewerage Corporation*
601	3901646	JP	The New Earthquake Resistant Reinforcement Method For Concrete Structures Tetsuya Kunioka *Tokyo Metropolitan Government*
602	3901720	JP	Proposal For Reconstructing A Distribution System By Closing A Distribution Reservoir Based On Decreasing Demand Atsushi Kiyama *Niigata City Waterworks Bureau*
603	3901822	JP	Review Of Asset Evaluation Unit Of Sewer System Ryo Toshima *PASCO Corporation*
604	3902159	JP	Performance Of Concrete Corrosion Protection Coating Using Photo-curing Resin For Wastewater Treatment Facilities Jun Iwasaki *Japan Sewage Works Agency*
605	3905618	JP	Examination Of Effective Sewage Pipeline Inspection Motoki Sasaki *Japan Institute of Wastewater Engineering Technology*
606	3906644	JP	Effective And Stable Water Purification System In A Mountain Area Ishii Yoichiro *Tokyo Metropolitan Government*
607	3901640	JP	Capacity Building For Sewer Rehabilitation Based On Risk Management In Izmir City Tetsuya Mizutani *Sendai City Municipal Government*
608	3900715	JP	Restructuring Plan Centered Around Water Purification Plant Consolidations Hideki Tabata *City of Kawasaki*
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611	3902142	NL	The Shadow Price Of Fossil Groundwater Stijn Reinhard *Wageningen Economic Research*
612	3901650	JP	In Order To Achieve "Sustainable Sewerage" Kana Haba *Tokyo Metropolitan Government*
613	3904868	JP	Efforts To Gain Understanding And Cooperation To Plumbing -Communication With Neighborhood Toward Smooth Plumbing Osamu Matsuba *Tokyo Metropolitan Government*
614	3901745	JP	50 Years Of Progress For The Tokyo Metropolitan Regional Sewerage System Takashi Takiguchi *Tokyo Metropolitan Governnment*
615	3904985	JP	Secure And Efficient Fund Management Takada Hitomi *Tokyo Metropolitan Government*
616	3906556	JP	Fiscal Management By Tokyo Metropolitan Government Based On The Medium-and Long Term Viewpoint Koichiro Igari *Bureau of Waterworks*
617	3919956	JP	Efforts Of Technological Succession -Establishment Of Body System, The Bureau Of Sewerage, Tokyo Metropolitan Government Ryota Okazaki *Tokyo Metropolitan Government*
618	3900701	JP	Monitoring Of Water Quality Of Wastewater Using An Automatic Sampling System For The Preventive Maintenance Yoshinori Yamato *City of Yokohama*
619	3901561	JP	Identification Of The Business Facilities Which Discharge 1,4-dioxane And Instructions On How To Manage This Problem Atsuko Kudoh *City of Yokohama*
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626	3903206	DK	How Geophysics Enrich Managed Aquifer Recharge Solutions Søren Hvilshøj *Ramboll Water*
627	3899078	JP	A Study On The Water Rate System For The Stable Management Of Water Supply Utilities Akemi Shigetomi *Nagoya City Waterworks and Sewerage Bureau*
628	3901500	JP	Operational Improvement Initiatives For Sustainable Business Operations Of Yokohama's Sewerage Works Eijiro Suzuki *City of Yokohama*
629	3899042	JP	Asset Management Tool For Suita Waterworks Bureau: Improvement Of Tools Published By The MHLW In Japan Akitomo Murakami *Suita Waterworks Bureau*
630	3915310	FR	"The Water And Sanitation House": A Space For Sharing And Learning On Water And Sanitation Management Jean-Pierre Tabuchi *SIAAP*
631	3873985	JP	Improvement In OJT For New Employees Through Visualization Tsuyoshi Obana *Public Utility Services Center Co.,Ltd*
632	3890568	JP	Development Of Electric Circuit Practical Training Equipment that Enables Innovative Human Resource Development Naoki Ueno *Bureau of Waterworks, Tokyo Metropolitan Government*
633	3898288	JP	Human Resources Development Policy Anna Odake *Tokyo Metropolitan Government*
634	3900695	JP	Initiatives To Enhance Human Resources At Tokyo Waterworks Akiyama Junko *Tokyo Metropolitan Government*
635	3901477	JP	Human Resource Development To Ensure Safe And Secure Water Supplies -For Sustainable Water Supply Services Noriyuki Takano *Japan Water Works Association*
636	3901683	JP	Regional Collaboration Between A Water Wholesaler, The Saitama Prefecture And A Water Supplier, The Tokigawa Town Yoshiharu Nashiki *Saitama Prefectural Public Enterprise Bureau*
637	3903687	JP	The Roll Of Water Activities In The Small Smart City In Japan Kunihisa Kakumoto *Architecture and Urban Laboratory K2*
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648	3903144	MX	Execution Of Measurements For Participatory Water Monitoring Program Nathalie Brandebourger *Tecnológico de Monterrey*
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657	3903602	JP	Characterization Of Water Qualities Toward Water Circulation Modelling During Winter In A Snowy Forest Catchment Yusuke Tsukamoto *Nihon Suido Consultants CO.LTD*
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Kubota

Ever since our establishment in 1890, Kubota has worked to provide various products that contribute to people's lives and communities around world, such as iron piping for modern water service facilities, agricultural machinery.

And now, we are developing our business globally through products, technology, and services based on a long year experience especially offering an upstream to downstream water solution.

Setting SDGs as a compass, Kubota will continue to make united efforts to solve the social problems and support the future of the earth.

We look forward to meeting you at this valuable event introducing our challenges all over the world.

Platinum Sponsors

COSMO

It is our pleasure to participate in the World Water Congress & Exhibition 2018 in Tokyo, a major international event related to water. Cosmo Koki co., ltd has been providing overseas customers with cutting-edge products for more than 50 years. We are specialized in two main areas: the production of the joints related to the water pipes and the pipework under pressure. The latter is a unique technology that can construct the water pipelines without shutting water supply. It aims to supply safe and secure water in sustainable way, while meeting the needs of our customers. Using our know-how and those special techniques, we can offer a lot of solutions for your problem or demand about pipelines. Also, our strength is a consistent service as a maker. We have many branches all over Japan and various sections from the sales, the development, and the engineering to the factory and the distribution. Therefore, we listen to your demand, make a plan, develop and design, do the construction and installation, and give you a satisfactory service-after-sales. In addition to that, we have the overseas department. We can contribute to help maintaining your important assets for a long time and keep important natural resource of water from wasting. We look forward to present our exceptional technology at the Congress.

MEIDEN
Quality connecting the next

Meidensha Corporation ("Meiden") has more than 120 years of experience in developing a wide range of innovations, products and services in Power, Water, Railways and other Industries. We have contributed to the progress of water treatment systems. In Japan, there are many other challenges like aging facilities, developing flooding countermeasures. Meiden developed "Flood Monitoring System," an IoT service as a useful measure against urban flooding caused by sudden downpours. The system collects rainfall data and water level information of wastewater pipes from sensors fitted on manhole covers to provide the real-time information required for disaster prevention. Meidensha aims to continue offering attractive services to the satisfaction of the local communities through IoT solution service in the social infrastructure fields led by disaster prevention monitoring. In overseas countries, there are pressing needs to address the issues such as lack of water resources and environmental pollution due to increase in population and sharp expansion of economic activities. We developed a highly durable "ceramic flat sheet membrane" to address these issues. This cutting edge product is very effective for various industrial wastewater, municipal sewage and drinking water.

At the IWA WWCE 2018, Meiden will have the honor to introduce its new technologies. We are glad to learn more about the latest water related technologies and projects at the Congress because our objective is to create water innovations with our technologies and products to keep the environment clean for the future generations.

HITACHI
Inspire the Next

Hitachi, Ltd., headquartered in Tokyo, Japan, delivers innovations that answer society's challenges. The Hitachi Group is a global leader in the Social Innovation Business, and it has approximately 304,000 employees worldwide. Through collaborative creation, Hitachi is providing solutions to customers in a broad range of sectors, including Industry / Distribution / Water, Urban, etc. In the water business, Hitachi offers a variety of products, systems and services such as water resource reservation, flood control, water supply and sewage development, waste water treatment, and the reclamation and recycling of water for almost a century. As welcoming the IoT era we deliver innovations to society and customers by leveraging three strengths - operational technology (OT), IT and products/systems.

Swing Corporation

Swing Corporation is a leading water solutions provider with head office in Tokyo serving both municipal and industrial customers in domestic and overseas markets. We design, build, operate and maintain water and wastewater treatment plants using water and environmental technologies developed and proven in Japan over many decades. We currently operate and maintain more than 300 water treatment facilities nationwide, and have supplied to over 750 plants in 50 countries worldwide. At the IWA World Water Congress & Exhibition 2018, Swing Corporation will introduce our latest solutions for wiser and sustainable water management.

We look forward to welcoming all delegates to our Exhibition Booth and our presentations at Technical Sessions and Business Forums.

TAISEI KIKO

Taisei Kiko Co., Ltd. has consistently engaged in maintenance of water and sewage network since its foundation in 1941. In particular, after the World War II, Taisei Kiko developed "Retainer Gland" and a variety of other fittings with restoration and reconstruction of critical infrastructure. Company brought the Under Pressure Construction Method to completion, which is represented by "Yano Stopper," as a complementary construction method for maintaining the pipeline network to meet rapid urbanization.

In recent years, the remarkable aseismic performance of "TAI-FLEX" has received a high valuation throughout the world. A ductile iron ball type flexible expansion joint "TAI-FLEX" has a complete non-bolt structure and is known to protect water pipeline network from land subsidence as well as earthquakes.

In the meantime, the superiority of Japan's waterworks materials and equipment has already received high recognition from the world. Taisei Kiko, too, has fixed its eyes on the importance of overseas market since the 1960s, and has positively given publicity at exhibitions in Europe and the United States and Asia.

In 2018, our pipeline support product which we developed jointly with Osaka city and Okayama city was awarded "Infrastructure Maintenance Award" selected by six ministries of Japanese Government.

"User First." With this founding spirit always kept in mind, Taisei Kiko will be positively committed to research and development of new products and new construction methods for development of waterworks infrastructure.

At IWA World Water Congress & Exhibition 2018, we are really thrilled and enthusiastic about sharing products and construction methods with water professionals.

Gold Sponsors

Hitachi Zosen Corporation is proud to participate in the IWA Water and Development Congress & Exhibition 2018 in Tokyo as a Gold Sponsor. We are a global leading engineering company based in Japan in wide-ranging fields of environmental systems, industrial plants, processing equipment and more. We are putting unlimited efforts to find a better solution for our customers through experience and technology with sincerity to contribute to a prosperous future for nearly 130 years. We are willing to expand our environment and water business overseas by taking this opportunity. In our booth, we introduce 6 products; desalination plant, new seawater intake system called HiSIS (Hish-Speed Seabed Infiltration System,) water treatment fiber filtration systems called MARIMO & KEMARI, Reverse Osmosis (RO) technology by our subsidiary, Osmoflo, Hydrospring Hydrogen Generation System which can generate hydrogen with high purity by electrolysis of pure water, and Filter Press known as the most simple and effective dehydrator. We would highly appreciate if you stop by our booth and presentation and find further details of our technology and vision.

JFE Engineering Corporation is pleased to be a part of IWA World Water Congress & Exhibition 2018 in Tokyo. We believe it would be a great opportunity to share our expertise as one of the leading engineering companies in Japan.

JFE Engineering is expanding its engineering business which supports people's lives and industries in the fields of water, environment, energy and social infrastructure. We will continuously contribute to the social development as a company who realizes its corporate message, "Creates the foundation for Life, Ni-na-u* the Foundation for Life". (*Ni-na-u is a Japanese word meaning supporting and remaining responsible.)

Please visit us at booth No. 145 & 246-B, and join our Business Forum Session from 11:15 on 18 September at Business Forum Room 2 to know more about us.

We look forward to seeing you.

KANSEI Company is proud to announce that it will be present for the first time at the IWA Water and Development Congress & Exhibition held in Japan this year in September at Tokyo Big Site. We hope to be able to bring knowledge and experience in the wastewater system maintenance and management field as much as we hope to learn about new innovative water technologies from our colleagues participating in this event.

The machines that we are going to exhibit at our booth are all special and only own by KANSEI.

We call them the grand beaver, the grand sweeper and the earthworm robot.

We will be happily waiting for everyone in the Sponsor Zone near the Japanese Pavilion.

See you there!

Yoroshiku Onegaishimasu!

Kurimoto was founded as a manufacturing company of cast iron pipes for waterworks in 1909. We have contributed in the area of social infrastructure and improvement of industrial society in various ways by providing high quality ductile iron pipes, valves and industrial equipment for over 100 years. Our mission is to develop innovative technology, produce new values for our customers' satisfaction and trust, and create a better future for the people and planet. We are honored to participate in IWA World Water Congress & Exhibition 2018.

Morimatsu Industry Co., Ltd's philosophy is to contribute to a safe and stable water supply. Morimatsu is proud of its technology and experience in the safe and reliable storage of water, something which becomes a lifeline in times of crisis. Morimatsu Industry is a pioneer in the development of water supply tanks, early on introducing the use of stainless steel. Stainless steel water supply tanks we developed have offering superior strength, durability, sanitariness and watertightness. Stainless steel water supply tanks are quickly constructed, and are easy to inspect once installed, thereby reducing maintenance costs. And the recyclability of steel is gaining attention from environmental perspective. The IWA World Water Congress is the opportunity to showcase our technologies and products, we look forward to it.

Poten Environment is committed to exploring innovative solutions for creating a better environment. Since its establishment in 1995, Poten Enviro has been providing quality environmental services with constant technology upgrading and model innovation. With "water-related multibusiness development strategy," we have introduced integrated solutions throughout the industry chain. It covers detection and monitoring; consulting and design; system integration; project management; core equipment manufacturing; investment and operation; etc., in industrial water systems; urban water environments; ecological restoration; soil remediation and other fields. With strength in technology, we have a track record of hundreds of environmental achievements for different industries. Through innovation-driven business strategy, Poten Enviro continues to accumulate its competitive advantage in the emerging environmental market.

Welcome Reception Sponsor

SUEZ is very pleased to take part in the IWA WWCE 2018. Indeed, we secure water resources, delivering drinking water, wastewater treatment services and smart solutions to cities and industries, using the full potential of digital technologies and innovative solutions. Our group provides long experience and technical know-how in water management solutions that enable cities and industries to optimize their resource management and strengthen their environmental and economic performances. Fully engaged in the resource revolution, SUEZ is looking forward to having valuable opportunities at this event for sharing new solutions, technologies and innovations, networking with water leaders, professionals and overseas partners. Our delegates and experts will be mostly pleased to meet with visitors and clients at the SUEZ lounge N° 103, situated near the exit. Come and visit us!

Major advances in technology are creating extraordinary opportunities to solve water issues globally. Xylem is a leading global water technology company dedicated to solving the world's most challenging water issues. We collaborate with our customers and partners to bring the right technology and solutions to the market to increase the productivity of, and optimize, water and wastewater operations. Our products and services move, treat, analyze, monitor and return water to the environment in public utility, industrial, residential and commercial building services settings. As a global leader in smart water, we are pioneering new ways to harness technology, data and innovation to deliver powerful and unprecedented insights to customers around the water cycle. We are excited about the incredible opportunities that new digital technologies are bringing to the water sector, and we are committed to driving innovation and advancing the conversation around digital transformation. We're proud to sponsor the IWA World Water Congress, and we look forward to participating in this important global dialogue about our water future. Let's solve water. @Xyleminc

METAWATER is honored to be present at the IWA World Water Congress & Exhibition 2018. As a company in water and environmental infrastructure in Japan, we are looking forward to connecting and sharing our problem-solving knowledge in terms of water and sewage services. We will be hosting the welcome reception, and are looking forward to seeing you all at our exhibition booth.

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Blue-Green Systems

Editors-in-Chief: Prof. Jiuhui Qu & Prof. Ana Deletic

Blue-Green Systems brings together cutting edge research on sustainable, energy efficient and environmentally responsible water use in cities and their regions. It welcomes contributions from water engineers, economists, planners, hydrologists, ecologists, sociologists, architects, health workers, policymakers and anyone engaged in solving water challenges of a rapidly urbanizing planet.

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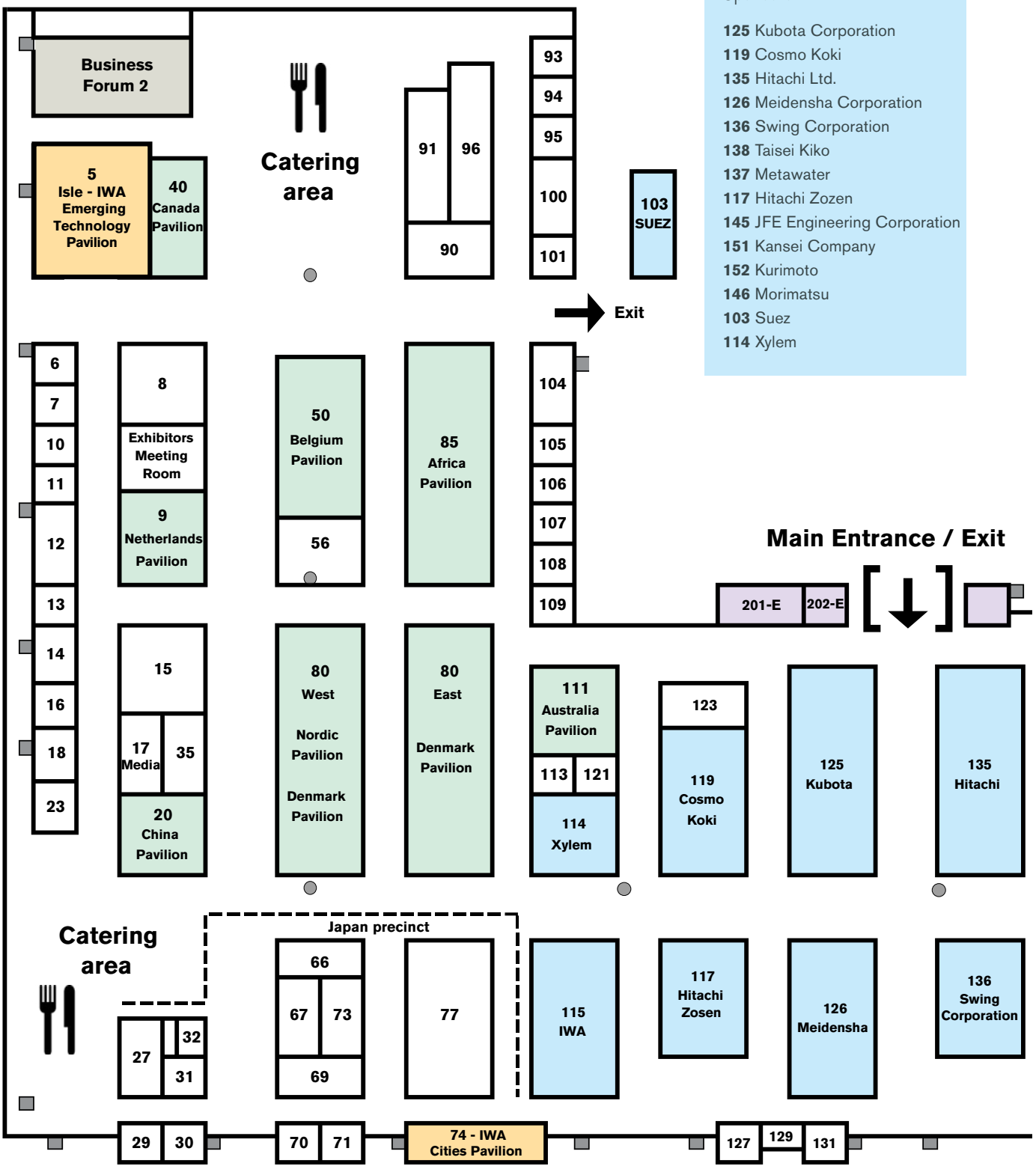
Exhibition

Floor Plan



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137 Metawater
117 Hitachi Zozen
145 JFE Engineering Corporation
151 Kansei Company
152 Kurimoto
146 Morimatsu
103 Suez
114 Xylem

Africa Pavilion
STAND 85

Belgium Pavilion
STAND 50

China Pavilion
STAND 20

Netherlands Pavilion
STAND 9

Australia Pavilion
STAND 111

Canada Pavilion
STAND 40

Denmark Pavilion
STAND 80 EAST AND 80 WEST

Nordic Pavilion
STAND 80 WEST

Japan Pavilion

Organised by 2018 IWA Congress Host Country Committee

STANDS 201 — 285

The Japan Pavilion highlights the Japan Industry and its major players. It is the opportunity to meet and become acquainted with water projects featured by Japan's leading companies, institutes, utilities and government innovations and products on a global stage.

Emerging Technology Pavilion

Organized by Isle Utilities and sponsored by Aqualia, Anglian Water, SUEZ and PureTerra Ventures

STAND 5

The Emerging Technologies pavilion at booth #5 facilitates as the meeting point between the utilities behind the challenges and innovative solution providers. The ETP program starts with a Challenge Exchange showcasing several challenges and unique best practices through the eyes of the utilities and investors. The second part of the program is dedicated to entrepreneurs with innovative (waste) water solutions from all over the world.

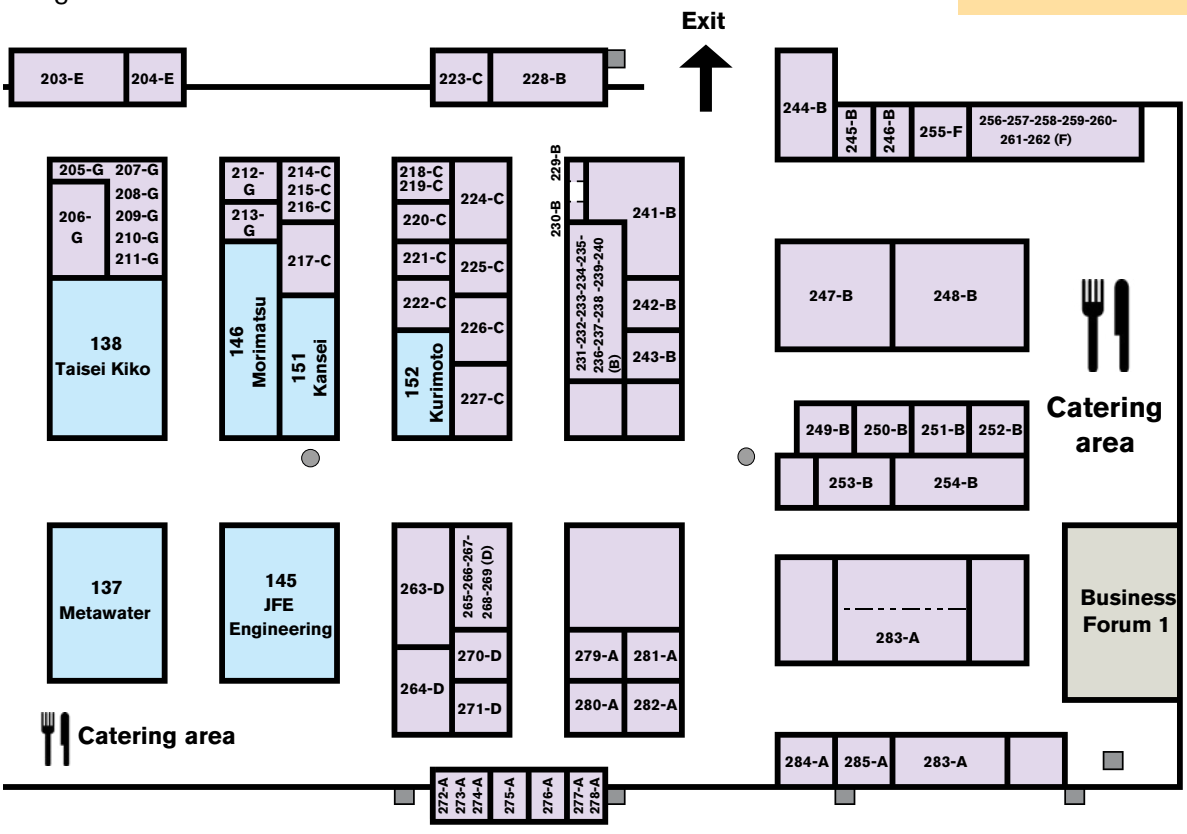
Water-Wise Pavilion

Organised by the International Water Association

STAND 74

Engage with the IWA throughout the week at the Water-Wise Pavilion, powered by Arup, CRC for Water Sensitive Cities, SIAAP and sponsored by Arcadis. The activities at the Pavilion will focus on the role of connecting utilities to their cities and basins and to exchange with key urban actors rethinking utility service boundaries to transition to water-wise cities. The pavilion will host interactive content on regenerative services, water-sensitive urban design, and water-wise basins, with a focus on inspiring action towards a water-wise world using the IWA Principles for Water-Wise Cities.

Registration desk



Emerging Technologies Pavilion

& Challenge Exchange Program

IWA & Isle Emerging Technologies Pavilion

Organized by Isle Utilities in cooperation with SWAN and sponsored by Aqualia, Anglian Water, SUEZ and PureTerra Ventures.

The Emerging Technologies pavilion at booth #5 facilitates as the meeting point between the utilities behind the challenges and innovative solution providers.

The ETP program starts with a Challenge Exchange showcasing several challenges and unique best practices through the eyes of the utilities and investors. The second part of the program is dedicated to entrepreneurs with innovative (waste) water solutions from all over the world.

We have divided the days in 3 themes:

Day 1: Challenges and Opportunities for Deployment of Water Treatment World Wide

- Systea *Italy*
- Hawle Water Technology Norge *Norway*
- PowerTech Water *United States*
- Hydroko *Belgium*
- Hydro-dis *Australia*
- Terraheim *Korea*

Day 2: Challenges in Water Recycling from Industrial Wastewater Stream

- Blue Foot Membranes *Belgium*
- Luminultra *Australia*
- Carex of Sweden *Sweden*
- Aquafortus *New Zealand*
- LG Sonic *Netherlands*

Day 3: Practical Insights into Smart Water Deployments

- Kamstrup *Denmark*
- Frost & Sullivan *United States*

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Exhibitor

by organisation name

Exhibitor	Stand
3-Vand *Denmark*	80
ABE NIKKO KOGYO CO., LTD. *Japan*	207-G
Acevision (Beijing) Exhibition *China*	20
Africa Pavilion *Africa*	85
African Water Association *Ivory Coast*	85
Aichi Tokei Denki Co.,Ltd. *Japan*	204-E
AMCON INC *Japan*	32
AnCAD Inc. *Chinese Taipei*	96
Anglian Water *United Kingdom*	5
ANZAIKANTETSU,Co,Ltd *Japan*	241-B
Aquafitting Co., Ltd. *China*	20
AquaFlanders *Belgium*	50
Aquafortus Technologies Ltd. *New Zealand*	5
AquaGlobe *Denmark*	80
Aqualia *Spain*	5
AQUAS INC. *Chinese Taipei*	6
Aquatech Global Events *Netherlands*	9
Aqueduct Mapping System CO., LTD. *Japan*	267-D
Arcadis *USA*	74
ARUP *United Kingdom*	74
Asian Water *Malaysia*	17
AURORA Group *China*	20
Australia Pavilion *Australia*	111
Australian Water Partnership *Australia*	111
AVK Holding A/S *Denmark*	80
Azbil Kimmon Co., Ltd. *Japan*	202-E
BASF *Germany*	66
Beijing Tidelion S&I Rainwater Harvesting Technology Co. Ltd. *China*	20
Belgium Pavilion *Belgium*	50
Bioprocess Control *Sweden*	13
Blue Foot Membranes *Belgium*	5
Bureau of Sewerage, Tokyo Metropolitan Government *Japan*	283-A

Exhibitor	Stand
Bureau of Waterworks Tokyo Metropolitan Government *Japan*	283-A
CAMBI Group AS *Norway*	56
Canada Pavilion *Canada*	40
Canadian Association on Water Quality *Canada*	40
Canadian Water Network *Canada*	40
Canadian Water and Wastewater Association *Canada*	40
Carex of Sweden AB *Sweden*	5
Carleton University - Global Water Institute *Canada*	40
CAWARE FILTERING CORPORATION *Chinese Taipei*	104
CentrEAU - Université Laval *Canada*	40
Chiba Prefectural Waterworks Bureau *Japan*	274-A
China Pavilion *China*	20
CHUOU SEKKEI ENGINEERS CO.,LTD. *Japan*	262-F
City of Yokohama *Japan*	276-A
Coast to Coast Climate Challenge *Denmark*	80
Confederation of Danish Industry *Denmark*	80
COSMO KOKI CO., LTD *Japan*	119 / 217-C
CRC for Water Sensitive Cities *Australia*	74
Daicel Corporation *Japan*	250-B
DAIICHI TECHNO CO., LTD. *Japan*	232-B
Danish Water Forum *Denmark*	80
Danish Water Technology Group *Denmark*	80
DANVA *Denmark*	80
De Nora Permelec Ltd. *Italy*	121
De Watergroep *Belgium*	50
DEK CO.,LTD *Japan*	212-G
Delairco Japan KK *Japan*	29
Denmark Pavilion *Denmark*	80 EAST
DHI Group *Denmark*	80
DK Corporation *Japan*	266-D
DKK-TOA CORPORATION *Japan*	30
DK-Power *Japan*	27

Exhibitor	Stand
DMW CORPORATION *Japan*	233-B
Dryp *Denmark*	80
Dynamita SARL *France*	107
EBARA JITSUGYO CO.,LTD. *Japan*	249-B
Ecologix Technologies Asia Pacific *Chinese Taipei*	123
eGloo Technologies *Australia*	113
Ekopak *Belgium*	50
EMORI Infotech *Japan*	71
Energy Management System Co., Ltd. *Chinese Taipei*	93
EPAL *Portugal*	35
EPAL-EP *Angola*	85
Estruagua *Spain*	106
European Benchmarking Co-operation *Netherlands*	9
EverythingAboutWater *India*	17
Express Water *India*	17
Federation of Japan Water Industries Inc. *Japan*	272-A
Filtteck *Chinese Taipei*	108
Flanders Investment and Trade – FIT *Belgium*	50
Flanders Knowledge Center Water – VLAKWA *Belgium*	50
Fracta *USA*	31
FUJITECOM.INC *Japan*	263-D
FUJIWARA INDUSTRY CO., LTD. *Japan*	251-B
FUSO Corporation *Japan*	234-B
G8 International Trading Co., Ltd. *Japan*	241-B
Global Water Intelligence *United Kingdom*	18
GLS Tanks International *Austria*	14
GOODMAN INC. *Japan*	264-D
Grundfos A/S *Denmark*	80
Gutermann *Switzerland*	264-D
Hach Ultra *Japan*	131
HARP - Hamamatsu Artful Technology Platform for Enriching Water and Daily Life *Japan*	282-A
Hermann Sewerin GmbH *Germany*	90

Exhibitor	Stand
Heron Instruments *Canada*	40
HINODE, Ltd. *Japan*	227-C
Hitachi, Ltd. *Japan*	135 / 242-B
Hitachi Zosen Corporation *Japan*	117
HORIBA Advanced Techno, Co., Ltd. *Japan*	252-B
Hydro-Dis *Australia*	5
Hydroko *Belgium*	5 / 50
Hydromantis *Canada*	40
IBARAKI Prefectural Government Public Enterprise Bureau *Japan*	275-A
Ichigo Holdings Co., Ltd. *Japan*	70
Informetics ApS *Denmark*	80
INRS Université de Recherche *Canada*	40
International Centre of Regulatory Excellence - ICORE *Canada*	40
International Water Association *Global*	115
Isle Utilities *Netherlands*	5
IWA-ASPIRE 2019 Hong Kong *Hong Kong*	8
IWA Water-Wise Cities Pavilion *Netherlands*	74
Japan Institute of Wastewater Engineering and Technology – JIWET *Japan*	281-A
Japan International Cooperation Agency – JICA *Japan*	285-A
Japan Pavilion *Japan*	
Japan Valve Manufacturers' Association *Japan*	203-E
Japan Water Endoscope Camera Association *Japan*	271-D
Japan Water Purifier Association *Japan*	201-E
Japan Water Research Center *Japan*	273-A
Japan Water Steel Pipe Association *Japan*	218-C
Japan Waterworks Newspaper Company *Japan*	213-G
Japan Water Works Association *Japan*	278-A
JFE Engineering Corporation *Japan*	145 / 246-B
Johkasou System Association *Japan*	244-B
Kamstrup A/S *Denmark*	80
KANSEI Company *Japan*	151 / 269-D

Exhibitor

by organisation name

Exhibitor	Stand
KAUST Water Desalination and Reuse Centre *Saudi Arabia*	7
Kawasaki Heavy Industries, Ltd. *Japan*	210-G
Ketech Scientific Instrument Co., Ltd. *Chinese Taipei*	95
KIMURA TECHNICAL Co., Ltd. *Japan*	205-G
KITAKYUSHU OVERSEAS WATER BUSINESS ASSOCIATION *Japan*	279-A
Klimaspring *Denmark*	80
KOBELCO ECO-SOLUTIONS CO., LTD. *Japan*	231-B
Kubota Corporation *Japan*	125 / 206-G
Kurimoto, Ltd. *Japan*	152 / 222-C
Kurita Water Industries *Japan*	31
KURODITE Corporation *Japan*	69
Kyowa Kako Co., Ltd. *Japan*	241-B
L'Office National de l'Electricité et de l'Eau Potable - ONEE *Morocco*	85
LG Sonic *Netherlands*	5
Lilongwe Water Board *Malawi*	85
LuminUltra Technologies *Canada*	5
Maezawa Industries, Inc. *Japan*	253-B
MDPI *Switzerland*	105
MEIDENSHA CORPORATION *Japan*	126 / 236-B
MESCO,Inc. *Japan*	223-C
METAWATER Co., Ltd. *Japan*	137 / 243-B
Ming Kuan Machinery MFG. Ent. Co., Ltd. *Chinese Taipei*	100
Ministry of Health, Labour and Welfare *Japan*	277-A
Mitsubishi Chemical Aqua Solutions *Japan*	66
Mitsubishi Electric Corporation *Japan*	240-B
Morimatsu Industry Co., Ltd. *Japan*	146
MORITA IRON WORKS CO.,LTD. *Japan*	221-C
MTD *Netherlands*	9
NAGAOKA INTERNATIONAL CORPORATION *Japan*	247-B
National Water and Sewerage Corporation *Uganda*	85
NEC Corporation *Japan*	209-G

Exhibitor	Stand
Netherlands Pavilion *Netherlands*	9
Netherlands Water Partnership *Netherlands*	9
Newspaper of Waterworks Industry *Japan*	208-G
New Energy and Industrial Technology Development Organization – NEDO *Japan*	284-A
NIHON GENRYO Co., Ltd. *Japan*	248-B
Nihon Suido Consultants Co., Ltd. *Japan*	260-F
NIHON SUIKO SEKKEI Co., Ltd. *Japan*	256-F
Nijhuis Industries *Netherlands*	9
NIKKISO GIKEN *Japan*	129
NIPPON CHUTETSUKAN K.K. *Japan*	226-C
NIPPON KOEI CO., LTD. *Japan*	258-F
NIPPON SUIDO SHINBUN COMPANY *Japan*	213-G
NISHIKAWA KEISOKU CO., Ltd. *Japan*	235-B
NJS CO.,LTD *Japan*	255-F
Nordic Pavilion *Nordic*	80 WEST
Nukote Coating Systems *USA*	91
OBOR Environmental Technology and Industry Alliance *China*	23
Ontoto *Australia*	10
ORGANO CORPORATION *Japan*	245-B
ORIGINAL ENGINEERING CONSULTANTS CO., LTD. *Japan*	257-F
PACIFIC CONSULTANTS CO., LTD. *Japan*	261-F
Parkson Corporation *USA*	109
PASCO CORPORATION *Japan*	268-D
Pentair - X-flow *Netherlands*	9
Pentough Corporation *Japan*	40
Phoslock Water Solutions *Australia*	11
POLITEC *Japan*	219-C
Polytechnique Montréal *Canada*	40
PowerTech Water *USA*	5
PUC Co.,Ltd. *Japan*	283-A

Exhibitor	Stand
PureTerra Ventures *China*	5
Ramboll A/S *Denmark*	80
Rematec *Japan*	5
SANKI ENGINEERING CO., LTD. *Japan*	237-B
Sasakura Engineering Co., Ltd. *Japan*	67
Scalgo ApS *Denmark*	80
Senegalaise des Eaux *Senegal*	85
SHIMIZU ALLOY MFG CO LTD *Japan*	214-C
ShinNan Casting Factory *Chinese Taipei*	94
Showarasenkan Seisakusho Co.,Ltd. *Japan*	215-C
SIAAP *France*	74
SK-KAWANISHI CO., LTD. *Japan*	220-C
SK Valves Co., Ltd. *Chinese Taipei*	101
Skanderborg Forsyningsvirkomhed A/S *Denmark*	80
Smith Innovation *Denmark*	80
SODECI *Ivory Coast*	85
Springer Nature *Netherlands*	9
State of Green *Denmark*	80
SUEZ *France*	103 / 5
SUIDO KIKO KAISHA, LTD. *Japan*	238-B
SUIKEN CO., LTD. *Japan*	216-C
SUMITOMO CORPORATION *Japan*	211-G
Sumitomo Electric Industries, Ltd. *Japan*	229-B
SWAN Forum *United Kingdom*	5
Swing Corporation *Japan*	136
SYSTEA S.p.A. *Italy*	5
Taisei Kiko Co., Ltd. *Japan*	138 / 224-C
TEC International Co., Ltd. – Tokyo Engineering Consultans Co., Ltd. *Japan*	259-F
tekReader Pty Limited *Australia*	113
Terraheim *Korea*	5

Exhibitor	Stand
The Danish Society for Wastewater Technology *Denmark*	80
The Source *United Kingdom*	115
Tokyo Gas Engineering Solutions Corporation *Japan*	265-D
TOKYO KEIKI INC. *Japan*	228-B
Tokyo Metropolitan Government *Japan*	283-A
TOKYO METROPOLITAN SEWERAGE SERVICE CORPORATION *Japan*	283-A
TOMCO2 Systems *USA*	127
TOMISU CO., LTD *Japan*	270-D
Toray Industries, Inc. *Japan*	230-B
TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORPORATION *Japan*	239-B
Trenchless International *Australia*	17
TSS Tokyo Water Co., Ltd. *Japan*	283-A
TSUKISHIMA KIKAI CO., LTD. *Japan*	254-B
TWEA *Chinese Taipei*	96
University of British Columbia *Canada*	40
VCS Denmark *Denmark*	80
Veolia *France*	77
VICTAULIC OF JAPAN LIMITED *Japan*	225-C
Vito *Belgium*	50
Water & Wastewater Asia *Singapore*	17
Water Solutions *Germany*	17
Watergas.it *Italy*	17
Watershare *Netherlands*	15
Waterworks Bureau, City of Kawasaki *Japan*	280-A
Whirl-Pak / Nasco Sampling *USA*	16
Wizit Energy *Korea*	12
Wonderful Copenhagen Convention Bureau *Denmark*	80
XYLEM Inc. *USA*	114
Yokogawa Solution Service Corporation *Japan*	73

Exhibitor

by booth number

Stand	Exhibitor
5	Anglian Water *United Kingdom*
5	Aquafortus Technologies Ltd. *New Zealand*
5	Aqualia *Spain*
5	Blue Foot Membranes *Belgium*
5	Carex of Sweden AB *Sweden*
5	Hydro-Dis *Australia*
5 / 50	Hydroko *Belgium*
5	Isle Utilities *Netherlands*
5	LG Sonic *Netherlands*
5	LuminUltra Technologies *Canada*
5	PowerTech Water *USA*
5	PureTerra Ventures *China*
5	Rematec *Japan*
5	SWAN Forum *United Kingdom*
5	SYSTEA S.p.A. *Italy*
5	Terraheim *Korea*
6	AQUAS INC. *Chinese Taipei*
7	KAUST Water Desalination and Reuse Centre *Saudi Arabia*
8	IWA-ASPIRE 2019 Hong Kong *Hong Kong*
9	Aquatech Global Events *Netherlands*
9	European Benchmarking Co-operation *Netherlands*
9	MTD *Netherlands*
9	Netherlands Pavilion *Netherlands*
9	Netherlands Water Partnership *Netherlands*
9	Nijhuis Industries *Netherlands*
9	Pentair - X-flow *Netherlands*
9	Springer Nature *Netherlands*
10	Ontoto *Australia*
11	Phoslock Water Solutions *Australia*
12	Wizit Energy *Korea*
13	Bioprocess Control *Sweden*
14	GLS Tanks International *Austria*

Stand	Exhibitor
15	Watershare *Netherlands*
16	Whirl-Pak / Nasco Sampling *USA*
17	Asian Water *Malaysia*
17	EverythingAboutWater *India*
17	Express Water *India*
17	Trenchless International *Australia*
17	Water & Wastewater Asia *Singapore*
17	Water Solutions *Germany*
17	Watergas.it *Italy*
18	Global Water Intelligence *UK*
20	Acevision (Beijing) Exhibition *China*
20	Aquafitting Co., Ltd. *China*
20	AURORA Group *China*
20	Beijing Tidelion S&I Rainwater Harvesting Technology Co. Ltd. *China*
20	China Pavilion *China*
23	OBOR Environmental Technology and Industry Alliance *China*
27	DK-Power *Japan*
29	Delairco Japan KK *Japan*
30	DKK-TOA CORPORATION *Japan*
31	Fracta *USA*
31	Kurita Water Industries *Japan*
32	AMCON INC *Japan*
35	EPAL *Portugal*
40	Canada Pavilion *Canada*
40	Canadian Association on Water Quality *Canada*
40	Canadian Water and Wastewater Association *Canada*
40	Canadian Water Network *Canada*
40	Carleton University - Global Water Institute *Canada*
40	CentrEAU - Université Laval *Canada*
40	Heron Instruments *Canada*
40	Hydromantis *Canada*
40	INRS Université de Recherche *Canada*

Stand	Exhibitor
40	International Centre of Regulatory Excellence - ICORE *Canada*
40	Pentough Corporation *Japan*
40	Polytechnique Montreal *Canada*
40	University of British Columbia *Canada*
50	AquaFlanders *Belgium*
50	Belgium Pavilion *Belgium*
50	De Watergroep *Belgium*
50	Ekopak *Belgium*
50	Flanders Investment and Trade – FIT *Belgium*
50	Flanders Knowledge Center Water – VLAKWA *Belgium*
50	Vito *Belgium*
56	CAMBI Group AS *Norway*
66	BASF *Germany*
66	Mitsubishi Chemical Aqua Solutions *Japan*
67	Sasakura Engineering Co., Ltd. *Japan*
69	KURODITE Corporation *Japan*
70	Ichigo Holdings Co., Ltd. *Japan*
71	EMORI Infotech *Japan*
73	Yokogawa Solution Service Corporation *Japan*
74	Arcadis *USA*
74	ARUP *United Kingdom*
74	CRC for Water Sensitive Cities *Australia*
74	IWA Water-Wise Cities Pavilion *Netherlands*
74	SIAAP *France*
77	Veolia *France*
80	3Vand *Denmark*
80	AquaGlobe *Denmark*
80	AVK Holding A/S *Denmark*
80	Coast to Coast Climate Challenge *Denmark*
80	Confederation of Danish Industry *Denmark*
80	Danish Water Forum *Denmark*

Stand	Exhibitor
80	Danish Water Technology Group *Denmark*
80	DANVA *Denmark*
80 EAST	Denmark Pavilion *Denmark*
80	DHI Group *Denmark*
80	Dryp *Denmark*
80	Grundfos A/S *Denmark*
80	Informetics ApS *Denmark*
80	Kamstrup A/S *Denmark*
80	Klimaspring *Denmark*
80 WEST	Nordic Pavilion *Nordic*
80	Ramboll A/S *Denmark*
80	Scalgo ApS *Denmark*
80	Skanderborg Forsyningsvirkomhed A/S *Denmark*
80	Smith Innovation *Denmark*
80	State of Green *Denmark*
80	The Danish Society for Wastewater Technology *Denmark*
80	VCS Denmark *Denmark*
80	Wonderful Copenhagen Convention Bureau *Denmark*
85	Africa Pavilion *Africa*
85	African Water Association *Ivory Coast*
85	EPAL-EP *Angola*
85	L'Office National de l'Electricité et de l'Eau Potable - ONEE *Morocco*
85	Lilongwe Water Board *Malawi*
85	National Water and Sewerage Corporation *Uganda*
85	Senegalaise des Eaux *Senegal*
85	SODECI *Ivory Coast*
90	Hermann Sewerin GmbH *Germany*
91	Nukote Coating Systems *USA*
93	Energy Management System Co., Ltd. *Chinese Taipei*
94	ShinNan Casting Factory *Chinese Taipei*
95	Ketech Scientific Instrument Co., Ltd. *Chinese Taipei*

Exhibitor

by booth number

Stand	Exhibitor
96	AnCAD Inc. *Chinese Taipei*
96	TWEA *Chinese Taipei*
100	Ming Kuan Machinery MFG. Ent. Co., Ltd. *Chinese Taipei*
101	SK Valves Co., Ltd. *Chinese Taipei*
103 / 5	SUEZ *France*
104	CAWARE FILTERING CORPORATION *Chinese Taipei*
105	MDPI *Switzerland*
106	Estruagua *Spain*
107	Dynamita SARL *France*
108	Filtteck *Chinese Taipei*
109	Parkson Corporation *USA*
111	Australia Pavilion *Australia*
111	Australian Water Partnership *Australia*
113	eGloo Technologies *Australia*
113	tekReader Pty Limited *Australia*
114	XYLEM Inc. *USA*
115	International Water Association *Global*
115	The Source *United Kingdom*
117	Hitachi Zosen Corporation *Japan*
119 / 217-C	COSMO KOKI CO., LTD *Japan*
121	De Nora Permelec Ltd. *Italy*
123	Ecologix Technologies Asia Pacific *Chinese Taipei*
125 / 206-G	Kubota Corporation *Japan*
126 / 236-B	MEIDENSHA CORPORATION *Japan*
127	TOMCO2 Systems *USA*
129	NIKKISO GIKEN *Japan*
131	Hach Ultra *Japan*
135 / 242-B	Hitachi, Ltd. *Japan*
136	Swing Corporation *Japan*
137 / 243-B	METAWATER Co., Ltd. *Japan*
138 / 224-C	Taisei Kiko Co., Ltd. *Japan*

Stand	Exhibitor
145 / 246-B	JFE Engineering Corporation *Japan*
146	Morimatsu Industry Co., Ltd. *Japan*
151 / 269-D	KANSEI Company *Japan*
152 / 222-C	Kurimoto, Ltd. *Japan*
	Japan Pavilion *Japan*
201-E	Japan Water Purifier Association *Japan*
202-E	Azbil Kimmon Co., Ltd. *Japan*
203-E	Japan Valve Manufacturers' Association *Japan*
204-E	Aichi Tokei Denki Co.,Ltd. *Japan*
205-G	KIMURA TECHNICAL Co., Ltd. *Japan*
207-G	ABE NIKKO KOGYO CO., LTD. *Japan*
208-G	Newspaper of Waterworks Industry *Japan*
209-G	NEC Corporation *Japan*
210-G	Kawasaki Heavy Industries, Ltd. *Japan*
211-G	SUMITOMO CORPORATION *Japan*
212-G	DEK CO.,LTD *Japan*
213-G	Japan Waterworks Newspaper Company *Japan*
213-G	NIPPON SUIDO SHINBUN COMPANY *Japan*
214-C	SHIMIZU ALLOY MFG CO LTD *Japan*
215-C	Showarasenkan Seisakusho Co.,Ltd. *Japan*
216-C	SUIKEN CO., LTD. *Japan*
218-C	Japan Water Steel Pipe Association *Japan*
219-C	POLITEC *Japan*
220-C	SK-KAWANISHI CO., LTD. *Japan*
221-C	MORITA IRON WORKS CO.,LTD. *Japan*
223-C	MESCO,Inc. *Japan*
225-C	VICTAULIC OF JAPAN LIMITED *Japan*
226-C	NIPPON CHUTETSUKAN K.K. *Japan*
227-C	HINODE, Ltd. *Japan*
228-B	TOKYO KEIKI INC. *Japan*
229-B	Sumitomo Electric Industries, Ltd. *Japan*

Stand	Exhibitor
230-B	Toray Industries, Inc. *Japan*
231-B	KOBELCO ECO-SOLUTIONS CO., LTD. *Japan*
232-B	DAIICHI TECHNO CO., LTD. *Japan*
233-B	DMW CORPORATION *Japan*
234-B	FUSO Corporation *Japan*
235-B	NISHIKAWA KEISOKU CO., Ltd. *Japan*
237-B	SANKI ENGINEERING CO., LTD. *Japan*
238-B	SUIDO KIKO KAISHA, LTD. *Japan*
239-B	TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORPORATION *Japan*
240-B	Mitsubishi Electric Corporation *Japan*
241-B	ANZAIKANTETSU,Co,Ltd *Japan*
241-B	G8 International Trading Co., Ltd. *Japan*
241-B	Kyowa Kako Co., Ltd. *Japan*
244-B	Johkasou System Association *Japan*
245-B	ORGANO CORPORATION *Japan*
247-B	NAGAOKA INTERNATIONAL CORPORATION *Japan*
248-B	NIHON GENRYO Co., Ltd. *Japan*
249-B	EBARA JITSUGYO CO.,LTD. *Japan*
250-B	Daicel Corporation *Japan*
251-B	FUJIWARA INDUSTRY CO., LTD. *Japan*
252-B	HORIBA Advanced Techno, Co., Ltd. *Japan*
253-B	Maezawa Industries, Inc. *Japan*
254-B	TSUKISHIMA KIKAI CO., LTD. *Japan*
255-F	NJS CO.,LTD *Japan*
256-F	NIHON SUIKO SEKKEI Co., Ltd. *Japan*
257-F	ORIGINAL ENGINEERING CONSULTANTS CO., LTD. *Japan*
258-F	NIPPON KOEI CO., LTD. *Japan*
259-F	TEC International Co., Ltd. – Tokyo Engineering Consultans Co., Ltd. *Japan*
260-F	Nihon Suido Consultants Co., Ltd. *Japan*
261-F	PACIFIC CONSULTANTS CO., LTD. *Japan*

Stand	Exhibitor
262-F	CHUOU SEKKEI ENGINEERS CO.,LTD. *Japan*
263-D	FUJITECOM.INC *Japan*
264-D	GOODMAN INC. *Japan*
264-D	Gutermann *Switzerland*
265-D	Tokyo Gas Engineering Solutions Corporation *Japan*
266-D	DK Corporation *Japan*
267-D	Aqueduct Mapping System CO., LTD. *Japan*
268-D	PASCO CORPORATION *Japan*
270-D	TOMISU CO., LTD *Japan*
271-D	Japan Water Endoscope Camera Association *Japan*
272-A	Federation of Japan Water Industries Inc. *Japan*
273-A	Japan Water Research Center *Japan*
274-A	Chiba Prefectural Waterworks Bureau *Japan*
275-A	IBARAKI Prefectural Government Public Enterprise Bureau *Japan*
276-A	City of Yokohama *Japan*
277-A	Ministry of Health, Labour and Welfare *Japan*
278-A	Japan Water Works Association *Japan*
279-A	KITAKYUSHU OVERSEAS WATER BUSINESS ASSOCIATION *Japan*
280-A	Waterworks Bureau, City of Kawasaki *Japan*
281-A	Japan Institute of Wastewater Engineering and Technology – JIWET *Japan*
282-A	HARP - Hamamatsu Artful Technology Platform for Enriching Water and Daily Life *Japan*
283-A	Bureau of Sewerage, Tokyo Metropolitan Government *Japan*
283-A	Bureau of Waterworks Tokyo Metropolitan Government *Japan*
283-A	PUC Co.,Ltd. *Japan*
283-A	Tokyo Metropolitan Government *Japan*
283-A	TOKYO METROPOLITAN SEWERAGE SERVICE CORPORATION *Japan*
283-A	TSS Tokyo Water Co., Ltd. *Japan*
284-A	New Energy and Industrial Technology Development Organization – NEDO *Japan*
285-A	Japan International Cooperation Agency – JICA *Japan*

Exhibitor Profiles

Stand 80
3-VAND
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Phone number: +45 4080 8400
Website:
Email: hew@vandcenter.dk

3-VAND is a close cooperation between four of the largest utility companies in Denmark, located in the three largest cities – Copenhagen, Aarhus and Odense. Our services are abstraction and distribution of drinking water, treatment of wastewater, groundwater protection and solutions for climate adaptation.
▪ We provide water services to 2 million people ▪ Turnover: more than EUR 900 million/year ▪ Total fixed assets: EUR 6 billion ▪ Investment: EUR 400 million/year More than 1.800 employees

Stand 207-G
ABE NIKKO KOGYO CO., LTD.
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General Email: h.degawa@abe-nikko.co.jp

ABENIKKOKOGYO has internationally high evaluation on Pre-stressed Concrete technology. As a pioneer of PC tank in the field of water supply facilities, we maintained the largest market share.
In railway field, we succeed as a leading company of PC sleeper.
Including PC bridges, we contribute to society through PC technology.

Stand 17
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AcquAgenda & Watergas.it by Agenda srl are the Italian directories of 500+ products & services for water pipelines and plants of water distribution, sewerage, waste water treatment. An integrated media system dedicated to 60.000 operators, buyers, contractors and 900 technical suppliers of the water market.

Stand 85
AFRICAN WATER ASSOCIATION
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E-mail: adigbeu@afwa-hq.org

The African Water Association (AfWA), a non-profit organization, created in 1980, with a network of more than hundred- member companies over the whole of the African continent. Its know-how makes it possible to accompany its members towards achieving the Sustainable Development Goals (SDGs), and other short-term objectives set up for Africa. In 2020, AfWA will have its 40th anniversary, which they will celebrate during their 20th Congress in KAMPALA.

Stand 204-E
AICHI TOKEI DENKI CO., LTD
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General Email: overseas@inet1.aichitokei.co.jp

Since the company's establishment in 1898, Aichi Tokei Denki has acquired precision machining technologies through the manufacture of clocks. Based on those technologies, we are contributing to society through the provision of unique sensors, systems and services. Our fluid measuring technologies, which have gained the trust of our customers through our key business of the manufacture of water and gas meters, are at the core of these contributions. Even today, our stance of understanding the constantly changing needs of our customers and changing our own business flexibly, based on our core technologies, remains unchanged.
We hope that by providing solutions to our customers' and society's problems and offering them new value through our business, we will make even further leaps and bounds into the future.

Stand 32
AMCON INC.
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AMCON is a JAPANESE manufacturer of the Multi-Disc-Type screw press dewatering equipment "VOLUTE". AMCON first invented "VOLUTE" in the world as pioneer. Since establishment in 1974, AMCON has developed and sold more than 3,500 units in over 72 countries. "VOLUTE" can solve any kinds of problems on sludge-treatment. Distributors wanted!!

Stand 96
ANCAD, INC.
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Chinese Taipei
Phone number: 886-983-909-195
Website: www.ancad.com
Email: Winnie.tseng@ancad.com

Since 1999, AnCAD has been devoted to the field of scientific computation. Visual Signal which is the killer software developed by AnCAD can reveal new insights from signal easily. Furthermore, we have combined the concept of IoT and Visual Signal on the issue of smart groundwater management.

Stand 5
ANGLIAN WATER SERVICES LIMITED
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United Kingdom
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Web address: www.anglianwater.co.uk
General Email: pressoffice@anglianwater.co.uk

The largest water and water recycling company in England and Wales by geography, providing services to around 6 million customers across the East of England and Hartlepool.
Supplying more than one billion litres of water a day to customers, the company employs 4,462 people and around 7,000 partners to achieve this.

Stand 241-B
ANZAIKANTETSU CO.,LTD
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General Email: aqua@anzaimcs.com

Anzai MCS was founded in 1991 as the innovation section of Anzai Kantetsu Co, Ltd., an engineering business established in 1967 for the design and maintenance of bespoke production and mechanical systems. Run by inventor Satoshi Anzai, MCS is a highly respected leader in field of Nanobubbles with its patented carbon ceramic nano pore technology

Stand 20
AQUAFITTING CO., LTD
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General Email: nina.hanene@gmail.com

Established In 1997, Aquafitting Is A Leader Company In The Manufacturing Of Gate Valves, Check Valves And Butterfly Valves, As Well As Universal Couplings, Flange Adaptors And Saddles Commonly Used In Clean And Sewage Water Applications, In Natural Gas And Industrial Processes.

Stand 50
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AquaFlanders is the voice of all Flemish companies that are responsible for drinking water and sewer management. We promote the common interests of our members to the local, regional, federal and European government and stakeholders and support them with a package of services. AquaFlanders encourages a sustainable management and use of water.

Stand 5
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Aquafortus specializes in high water recovery and ZLD technologies. Aquafortus has developed a novel continuous, regenerable and non-thermal ZLD technology, the ABX. The ABX is used to recover clean water and resources from wastewater containing high levels of salinity. The ABX can save users 60% in operating costs.

Stand 80
AQUAGLOBE SKANDERBORG UTILITY
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AquaGlobe – Water Solution Center - is a partnership aiming to develop and demonstrate energy efficient, innovative and state-of-the-art water technology in a fully operational utility. We deliver drinking water using smart tech, treat waste water with environmental considerations and develop and implement innovative climate adaptation solutions locally for inspiration globally.

Stand 6
AQUAS INC.
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Chinese Taipei
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General Email: service@aquas.com.tw

Aquas Inc. Chinese Taipei based Manufacturer of smart integrated sensors, telemetry systems, and cloud-based SCADA and data management systems used in the water, gas, environment, infrastructure, industries at thousands of sites across the globe. All manufacturing processes follows the highest industrial standards and certificated by ISO9001.

Stand 9
AQUATECH
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Aquatech is the international platform specifically designed for professionals in the world of water technology. This platform offers you inspiring events in Amsterdam, China and Mexico; an overview of product and services of the world's leading companies and the latest news on process, drinking & waste water. The well-established format in Europe, China and Mexico covers the segments (Waste) Water Treatment, Transport/Storage, Point-of-Use, Process Control Technology/Automation and Engineering.

Stand 267-D
AQUEDUCT MAPPING SYSTEM CO., LTD.
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General Email: eigyou@ams-k.co.jp

Aqueduct Mapping System (AMS) is an information system development company for waterworks and sewerage businesses.
AMS products include geographic information system for pipeline maintenance, reception and examination system for application of water service pipe construction, and so forth.

Stand 74
ARCADIS
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Sponsor of the IWA Water-Wise Pavilion.

Stand 74
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Sponsor of the IWA Water-Wise Pavilion.

Stand 17
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Asian Water, a bi-monthly magazine that brings to readers the rapid economic growth and industrialization that is taking place in Asia, particularly in Southeast Asia, one of the world's fastest growing markets for water and wastewater treatment technology. Published since 1984 and acquired by SHP since 2001, Asian Water has been an impartial, interesting and trusted source of information covering every country in Asia.

Stand 111
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The Australian Water Partnership is an Australian Government initiative. We make a difference by mobilising and connecting Australian water sector expertise to address demand in the Indo-Pacific to enhance sustainable water management. We share resources and lessons learned in extreme drought, climate change, and over three decades of water reform.

Stand 80
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The AVK Group is a privately owned international industrial group currently comprising +100 companies worldwide. According to international standards, we develop and produce valves, hydrants and accessories for water and gas distribution, sewage treatment and fire protection. Furthermore, we deliver products and solutions for various industrial sectors and within advanced manufacturing.

Stand 202-E
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Web address: ak.azbil.com
General Email: ak-globalsales@azbil.com (For English)
web-info@azbil.com (For Japanese)

Azbil Kimmon has a history of over 100 years in the field of water meter manufacturing.
Our aim is to pursue the peace of mind, comfort and sense of accomplishment together with our customers by making use of our innovative, lifeline supportive line of products resulting from our many years of expertise.

Stand 20
BEIJING TIDELION S&I RAINWATER HARVESTING TECHNOLOGY CO., LTD
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Phone number: +86 10-60775529
Web address: www.tidelion.com
General Email: overseamarket@tidelion.com

Rainwater collecting & utilization system prouducts, siphonic roof drainage system products. Our full range of core technology products include the rainwater comprehensive utilization, sponge city construction, watershed management, black-odor water treatment, zero carbon construction and other fields.

Stand 13
BIOPROCESS CONTROL SWEDEN AB
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Bioprocess Control is a market leader in the area of flow gas flow analytical instruments for biotechnology related applications. We invest in innovation and development of smart instruments that allow for more efficient, reliable and high-quality research and analysis, leading to significant reductions in time and labour.

Stand 5
BLUE FOOT MEMBRANES NV
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Web address: www.bluefootmembranes.com
General Email: pvs@bluefootmembranes.com

Blue Foot Membranes introduces IPC® membranes, the world's first fully back-washable flat sheet membranes at pressures up to 2 bar. Installed in existing as well as in new MBR's, IPC® membranes can double the output capacity per square meter.
Rematec distributes IPC® membranes in Japan & Thailand.

Bureau of Sewerage
Tokyo Metropolitan Government

Stand 283-A
THE BUREAU OF SEWERAGE
Tokyo Metropolitan Government
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Bureau of Sewerage Tokyo Metropolitan Government is responsible for constructing, operating and managing Tokyo's sewerage system, which plays a vital role in ensuring a safe and pleasant living environment. We are promoting reconstruction of facilities, flood control, earthquake measures, combined sewer system improvement, advanced treatment, global warming measures etc.

Bureau of Waterworks
Tokyo Metropolitan Government

Stand 283-A
BUREAU OF WATERWORKS
Tokyo Metropolitan Government
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General Email: international_affairs@waterworks.metro.tokyo.jp

Tokyo Waterworks supports civic lives and urban functions in Tokyo by supplying stable clean water with subsidiary companies (TSS and PUC), as Tokyo Waterworks Group. We have overcome problems such as water shortages and pollution in the Megacity. We contribute to solve the world's water problems with our experiences.

Stand 56
CAMBI GROUP AS
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Cambi is the global leading provider of thermal hydrolysis, advanced anaerobic digestion and biogas solutions for sewage sludge and organic waste management. We have 63 plants in operation or construction in 21 countries on 5 continents serving 70 million people. Cambi was established in 1989 and is headquartered in Asker Norway.

Stand 40
CANADIAN ASSOCIATION FOR WATER QUALITY - CAWQ
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General Email: mike.lywood@amecfw.com

The Canadian Association on Water Quality is a non-governmental, non-profit organization for scientists, engineers, technologists, administrators, practitioners and students. The mission of CAWQ is to create and foster a nationwide network of professionals dedicated to the development and communication of knowledge to preserve and enhance the water quality environment.

Stand 40
CANADIAN WATER AND WASTEWATER ASSOCIATION
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The Canadian Water and Wastewater Association is the professional association for municipal water and wastewater utility leaders and the private sector that supports them. We are the voice of the municipal water sector in Canada at the national and the international level.

Stand 40
CANADIAN WATER NETWORK - CWN
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Canadian Water Network is a trusted broker of insights for the water sector, accelerating, advancing and improving water management decisions. CWN convenes government, industry and non-governmental partners around core challenges, and connects them with leading knowledge in a way that addresses the practical realities of water management. We ensure that research is actionable and leads to solutions.

Stand 5
CAREX OF SWEDEN AB
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International team providing waste-free decentralized systems for treatment of wastewater and reuse of regenerated water. Our solutions are based on microbial food-webs, functions and structures of natural lake ecosystems. The solutions obey principles of circular economy and closed-loop nutrient cycles while bringing many added values. They are suitable for any climatic conditions in the World.

Stand 40
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Carleton University is a leader in water research and education. Global Water Institute (GWI) has more than 100 researchers from all faculties at Carleton University, and has established strong ties with the federal and provincial governments, industrial partners, non-profit organizations, research institutions, and international water networks.

Stand 104
CAWARE FILTERING CORPORATION
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Caware is a global-and-well reputed Carbon Block and Filter Cartridge manufacturer for decade.
With professional filtration technology and constant innovation, Caware is expertise in filter cartridge development & production in applications of Medical, HORECA for Beverage/ Vending/Ice Maker/steamer… etc. and G2G applications, comprehensively satisfy diversity demands.

Stand 40
CENTREAU – UNIVERSITÉ LAVAL
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CentrEau is an interdisciplinary centre that regroups Québec's driving forces in the field of water management research. CentrEau is also a cluster of water research experts. It regroups researchers and graduate students from 11 establishments from all over Quebec.

Stand 274-A
CHIBA PREFECTURAL WATERWORKS BUREAU
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General Email: gijutsu-w@mz.pref.chiba.lg.jp

Chiba Prefectural Waterworks Bureau ,which was established in 1934, have installed advanced water treatment process consisting of ozonation and GAC since 1980 for the first time in Japan.
We supply drinking water to about 3 million people and important facilities such as Narita International Airport and Tokyo Disney Resort.

Stand 262-F
CHUOU SEKKEI ENGINEERING,CO.,LTD.
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We have been providing water and environmental consultancy services, including water supply, sewerage, waste & environment, and information processing engineering around 70 years. We are considering how we can continue to contribute to each field, while advancing our technical development based on the needs of future generations.

Stand 276-A
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Japan's modern waterworks and sewerage systems originated in Yokohama and now the City offers safe and stable service to 3.7 million citizens.
"Yokohama Water Business Association", organization of public-private partnership, contributes to water supply and sewerage utilities overseas, using advanced technology of private sector and knowhow of public sector.

Stand 80
COAST TO COAST CLIMATE CHALLENGE
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Coast to Coast Climate Challenge, is a LIFE IP running in the period 2017 - 2022. In Central Denmark Region, we are 31 partners running 24 sub projects on climate adaptation. The aim is to safeguard valuables from being destroyed by devastating weather incidents while concurrently achieving numerous other beneficial effects.

Stand 80
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Denmark
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Website: www.di.dk
Email: di@d.dk

Confederation of Danish Industry (DI) is a private organization funded, owned and managed entirely by 10,000 member companies within manufacturing, trade and service industry.
DI's member companies within the water sector are among the world leading companies within equipment and consulting services. The major water utilities in Denmark are members as well.

Stand 119 / 217-C
COSMO KOKI CO., LTD
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Japan
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Website: www.cosmo-koki.co.jp/en/
Email: MFujiwara@cosmo-koki.co.jp

Cosmo Koki co., ltd (Cosmo Koki) was founded in 1959 and has achieved its fame as a pioneer of "work under pressure". We commenced exports in 1962, and our first project abroad was the hot tapping on a crude oil pipeline in Iran. Since then, we have been providing overseas customers with our cutting-edge products for more than 50 years.

Stand 74
CRC FOR WATER SENSITIVE CITIES
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Australia
Phone number: +61 (03) 9902 4985
Website: watersensitivecities.org.au
E-mail address: admin@crcwsc.org.au

Sponsor of the IWA Water-Wise Pavilion.

Stand 250-B
DAICEL CORPORATION
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Hyogo 671-1283
Japan
Phone number: +81-79-244-9294
Web address: www.daicel.com/en
General Email: Please contact through "Contact Form"

Daicel Corporation has expanded into a variety of fields around our core technologies of cellulosic derivatives, organic chemicals, polymers and pyrotechnic devices.
Daicel group's products include RO,UF,MF membrane modules. Newly developed modules equipped with hollow fiber type membrane based on cellulose derivatives have higher flux than before, and furthermore, some have high resistance to chemicals and microorganisms.

Stand 232-B
DAIICHI TECHNO CO.,LTD.
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Tokyo 140-0013
Japan
Phone number: +81-3-5762-8007
Web address: www.daii.co.jp
General Email: k-nishio@daii.co.jp

DAIICHI TECHNO is a construction & maintenance firm that conducts business in the domain of water purification and sewage treatment plants in Japan. We have many construction results including pumps, valves, gates, solar power plants, and small hydraulic power generators.

Stand 80
DANISH WATER TECHNOLOGY GROUP
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Phone number: +45 5089 4488
Website: www.dk-water.com
Email: ilse.korsvang@dk-export.dk

IWA Booth 121

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IWA World Water Congress & Exhibition 2018

Booth 121

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Water Technologies Japan

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DWTG gathers Danish suppliers from all facets of the industry: ground water, drinking water, process water, wastewater, urban water issues etc.
DWTG is part of Danish Export Association representing 600+ Danish companies. We are owned by our 65+ members, supplying components, equipment, systems and services to the public/private water sector.

Stand 50
DE WATERGROEP
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Belgium
Phone number: +32 22-38 94 11
Website: www.dewatergroep.be
Email: info@dewatergroep.be

De Watergroep is the largest water company in Flanders (Belgium). We serve 3,2 million customers in more than 180 towns via a 34,000-kilometre network of pipes. De Watergroep's total drinking water production amounted to 130 million m^3 in 2017. De Watergroep is also a partner in the expansion of municipal sewerage networks, as well as a designer of tailor-made water projects for business.

Stand 212-G
DEK CO.,LTD
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Web address: www.dek.co.jp
General Email: i.kawaguchi@dek.co.jp

DEK has engaged in the construction and maintenance of social water infrastructure regarding welding. We developed a small diameter pipe renewal construction method, using flexible stainless steel Pipes (SDF construction method).This method contributes to meeting the social needs of constructing earthquake-resistant and prolonged social infrastructures.

Stand 29
DELAIRCO JAPAN KK
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Phone number: +81 3 6453 7626
Web address: www.delairco.co.jp
General Email: dj.sales@delairco.com

Delairco provides a range of monitoring systems from meteorology and hydrology through to water supply, sewage and industrial applications. We distribute Pulsar Process Management's Level and Flow monitoring systems including Ultrasonic and Radar Level Sensors, Open Channel and Pipe Flow Monitoring, and Sludge Blanket monitoring.

Stand 80
DHI
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Denmark
Phone number: +45 4516 9200
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Email: info@dhigroup.com

DHI are the first people you should call when you have a tough challenge to solve in a water environment – be it a river, a reservoir, an ocean, a coastline, a city or a factory.
Our knowledge of water environments is second-to-none. It represents 50 years of dedicated research and real-life experience from more than 140 countries. We strive to make this knowledge globally accessible to clients and partners through our local teams and unique software.
Our world is water

Stand 266-D
DK CORPORATION
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General Email: general-dept@daiichikankyo.co.jp

DK Corporation is a leading water meter billing company in the entrusting business of waterworks in Japan. We are eagerly engaged in providing broad range of professional services such as meter reading, billing system development, or management of water supply equipment, as well as in contributing to the welfare of regions for which we work.
With our 6000 people and 43 years of business experiences, we actively seek for better solutions to keep water supply safe and sound.

Stand 27
DK-POWER,LTD.
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Japan
Phone number:+81-6-6378-8733
Web address: www.dk-power.co.jp
General Email: dk-power@daikin.co.jp

Manufacturer and Consultant about Micro Hydropower Generation System for waterworks in Japan.

Stand 30
DKK-TOA CORPORATION
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Shinjuku-ku, Tokyo
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General Email: intsales@dkktoa.com

DKK-TOA has been manufacturing measuring instruments for over 70 years.
Based on our core electrochemical sensor technology, we produce a wide range of products through extensive research and development in environmental protection (water, air and gas) and in the field of medicine.

Stand 233-B
DMW CORPORATION
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Japan
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General Email: international@dmw.co.jp

DMW Corporation was established in the year of 1910 and had manufactured large size water turbines and pumps. Since 1955, we have mainly manufactured Pumps, Fans, Blowers and Valves, and supplied them to many governmental organizations, electric power companies and private companies not only in Japan but also overseas.

Stand 80
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Email: info@informetics.com

DRyP is on mission to dramatically increase the collective knowledge of our urban watersystems. Through a network of collectively aware, smart, cost-efficient and wireless sensors - we provide an end-to-end product for integrating real-time measurements in your pipes, basins and overflows with the rainfall and downstream inputs to your WWTPs.

Stand 107
DYNAMITA
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Website: www.dynamita.com
Email: info@dynamita.com

Dynamita is pleased to bring Sumo, our advanced dynamic process modelling package to it's native land, Japan. Sumo can handle treatment plants of unlimited complexity, BOD, N and P removal, digestion, IFAS and MBBR, SBRs, MBRs, clarifiers, thickeners, centrifuges and all process units typically used in municipal and industrial treatment plants. Sumo is used worldwide in Europe, North America, Australia and Asia by design engineers, municipalities and plant personnel, as well as in universities.

Stand 249-B
EBARA JITSUGYO CO.,LTD
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General Email: ej-ozone@ejk.co.jp

Ebara Jitsugyo focuses on "ozone," "deodorization and desulfurization," and "water processing" in environment-related R&D.
First in the industry, we developed the ozone monitors and control systems used at most waterworks in Japan.
Our unique, high-efficiency biological desulfurizer removing H2S in biogas and swirling flow type backwashing filter are gaining popularity.

Stand 9
EBC FOUNDATION
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Phone number: +31 6 5370 8388
Web address: www.waterbenchmark.org
General Email: peter.dane@waterbenchmark.org

EBC Foundation operates an international (Europe-wide) benchmarking programme to support water- and wastewater utilities in improving their service by finding weak spots in their operations and by learning from good practices in the network of utilities from across Europe.

Stand 123
ECOLOGIX TECHNOLOGIES ASIA PACIFIC, INC.
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Ecologix Asia, a division of Unites States-based company Ecologix Technologies, Inc., within 25 years of extensive experience, research and activities in wastewater treatment products, Ecologix Asia designs and manufactures the rotary drum screen, pipe flocculator, DAF, fine bubble membrane diffuser, MBR flat sheet module and skid-mounted MBR plant, shipped to the market in Oceania, S. Africa, Latin America, South East Asia and Mid East.

Stand 50
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Water is the driving force of all nature and elementary for a sustainable future. Therefore Ekopak creates futureproof water treatment solutions to ensure business processes in an ecological and economical way, through continuous effort in R&D and inhouse engineers that custom design, build, operate and maintain your desired water quality.

Stand 71
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General Email: iw-info@i-emori.co.jp

Headquartered in Fukui, EMORI Infotech Co,. Ltd. offers a range of IT related products, services, and imported & self-developed software applications. As the sole representative distributor for Innovyze solutions in Japan, we will exhibit InfoWorks WS Pro, IWLive Pro and InfoWorks ICM, the leading water resource management software for water industry.

Stand 93
ENERGY MANAGEMENT SYSTEM CO., LTD
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Website: en.ems.com.tw/index.aspx
Email: a99102@ems.com.tw

The leading & professional smart water meter manufacturer, EMS Co., Ltd, located in Chinese Taipei, has 27 years experiences in smart metering, wireless communications, AMR (automatic meter reading) software platforms to optimize water network operations, industrial applications and smart buildings well.

Stand 35
EPAL – EMPRESA PORTUGUESA DAS ÁGUAS LIVRES, SA
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General Email: dianac@adp.pt

EPAL is the largest water supply company in Portugal and a leader in product innovation and technologies to benefit the environmental sector. The company provides water to 3 million people and other services related to the urban water cycle, combining a range of competencies of renowned efficiency and resilience.

Stand 106
ESTRUAGUA
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Spain
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Web address: www.estruagua.com
General Email: martasanchez@estruagua.com

Design, manufacture and installation of machinery for industrial and urban water treatment

Stand 17
EVERYTHING ABOUT WATER PVT LTD.
E-mail: enquiry@eawater.com
Web address: www.eawater.com/expo

The 15th EverythingAboutWater Expo 2018 will be held on August 23-25, 2018, New Delhi, India.
The Expo will be one of the most unique and comprehensive annual water events in India showcasing latest technologies in the water and wastewater management sector. Also recognized as South Asia's largest water event, this water event is a perfect gateway for stakeholders from across the globe to penetrate into the vast and dynamic ecosystem of the Indian water industry.

Stand 17
EXPRESS WATER
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Express Water is a monthly publication bringing together the world's water communities through print, live events, online properties, training programs and market solutions. With a circulation of 12,000 copies/month, we reach all major water companies, industries, government & municipal bodies, and consultants. We are part of The Indian Express Ltd - one of India's largest media conglomerates with a wide selection of publications and a network of offices.

Stand 272-A
FEDERATION OF JAPAN WATER INDUSTRES,INC.
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The Federation of Japan Water Industries, Inc. (FJWI) is a sole representative organization for water supply and sewer industry.
The member company of FJWI covers all the fields such as product, technology, design, construction, operation and maintenance know-how, etc. in water supply and sewer field

Stand 108
FILTTECK CO., LTD.
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Filtteck is the professional filter cartridge manufacturer in Chinese Taipei dedicates to research and develop filter industry since 1998. With the technology and experience over these years, Filtteck becomes a leader in the filter. We offer various filter cartridges and bags for liquid filtration, including PP/NYLON/PBT melt-blown filter, PP/PES/PTFE pleated filter…etc.

Stand 50
FLANDERS KNOWLEDGE CENTER WATER (VLAKWA/VITO)
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Belgium
Phone number: +32 56-24 12 61
Website: www.vlakwa.be
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Providing Flanders with sufficient water of good quality at a reasonable price is a major challenge. The key to success is an cooperation between enterprises, researchers and government. The Flanders Knowledge Center Water (Vlakwa) is the driving force.

At those areas in the market where water problems constitutes a threat to the economy, Vlakwa initiates, coordinates and facilitates:
- International research, development and innovation projects;
- Partner search;
- Knowledge transfer.

Stand 50
FLEMISH INSTITUTE FOR TECHNOLOGICAL RESEARCH (VITO)
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VITO is a leading European independent research and technology organization in the areas of cleantech and sustainable development. The Water Management and Technology Department offers integrated solutions for challenges related to water. We support industry, public authorities and cities to setup demonstration projects and living labs to evaluate sustainable water management concepts.

Stand 31
FRACTA
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General Email: Please contact us from our website

Software service of predicting water main degradations based on artificial intelligence (AI) and machine learning (ML).

Stand 263-D
FUJI TECOM INC.
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General Email: kaigai@fujitecom.co.jp

We are contributing to development of instruments using at water facility in the world as a pioneer of water leak detection technology for 60 years. We are a leading manufacturer of the equipment for Non-Revenue Water Reduction, the water facility management and its technology. We have 40 distributors all over the world.

Stand 251-B
FUJIWARA INDUSTRY CO., LTD.
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Japan
Phone number: 81 6 6586 3388
Web address: www.fj-i.co.jp/English/
General Email: info@fj-i.co.jp

We are continuously supporting the environment and the human-life, through our innovative products in the Water Treatment Business and the Disaster Protection Business, from 1980. We'll continuously keep on aiming at the simple design, low energy consumption, low lifecycle cost and low maintenance, by our original patented technologies and design.

Stand 234-B
FUSO
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General Email: info@fuso-inc.co.jp

FUSO is a comprehensive water-engineering company which covers a wide range of fields related to water infrastructure since 1946. We have four sectors: Construction, Distribution, Maintenance, and Steel pipe manufacturing. With experiences throughout Japan, FUSO has been managing to design, construct, operate, and maintain different type of water-treatment facilities.

Stand 241-B
G-8 INTERNATIONAL TRADING CO., LTD.
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Web address: g8inter.co.jp
General Email: info@g8inter.co.jp

Our company is developing and selling M recycling machines.
The M recycling machine (MRM) can treat all flammable wastes with subcritical water technology with high pressure and high temperature steam and the processed product can be reused as excellent fertilizer, feed for livestock, energy, and the preparation of materials.

Stand 18
GLOBAL WATER INTELLIGENCE
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Global Water Intelligence is the global leader for primary research information on international water markets. Our monthly and weekly subscriptions, databases and reports are established as the leading source of data for developers, suppliers, financiers, governments, utilities and municipalities seeking data on water projects with an element of private sector participation www.globalwaterintel.com

Stand 14
GLS TANKS INTERNATIONAL GMBH
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Web address: www.glstanks.com
General Email: info@glstanks.com

GLS Tanks manufactures glass-lined-steel tanks for biogas applications, waste-water-treatment-plants, bulk silos. The advantages of bolted, glass-lined-steel tanks are, that they are easily to transport and to build up on every destination. Through the fusion of steel and glass, the strength of the steel combines with corrosion resistant of the glass.

Stand 264-D
GOODMAN INC
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General Email: info@goodman-inc.co.jp

Goodman is the specialized trading company with engineers, developing and handling the most effective locating equipment for the Water, Electricity and telecommunication market.
We are also involved in international cooperation projects for reducing non-revenue water.

Stand 80
GRUNDFOS
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Denmark
Phone number: +45 87 50 14 00
Website: www.grundfos.com
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Grundfos is a global leader in advanced pump solutions and a trendsetter in water technology. We contribute to global sustainability by pioneering technologies that improve quality of life for people and care for the planet. Grundfos was founded in 1945 and has today 19,000 employees worldwide.

Stand 264-D
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General Email: ch@gutermann-water.com

GUTERMANN is a global technology leader and innovator in intelligent water loss technologies and leak detection technology with headquarters in Baar, Switzerland, and regional offices through out the world.
GUTERMANN has been specialising in the design, manufacturing and distribution of all acoustic leak detection equipment for more than 60 years. With a constant focus on innovation, we have often been at the forefront of new product developments in our sector, always pushing the boundaries of water leak management technology and often copied by our competitors but never quite matched. Thanks to our tireless commitment to product quality, functionality and user-friendliness, GUTERMANN has become a synonym for precision, quality and reliability in leak detection technology worldwide.

Stand 131
HACH ULTRA JAPAN / DANAHER WATER QUALITY PLATFORM
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Hach Ultra Japan offers water quality analytical devices. Our offering measures various types of water, from Waste water to Ultra pure water. BioTector can measure TOC with very challenging waste water. ApplTek can measure wide range of parameter, including TP/TN/COD.

Stand 282-A
HAMAMATSU ARTFUL TECHNOLOGY PLATFORM FOR ENRICHING WATER AND DAILY LIFE (HARP)
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General Email: sd-kouji@city.hamamatsu.shizuoka.jp

HARP is a platform for discussing on overseas technical assistance and promotion consisting of Hamamatsu City Water Department and 13 private companies on designing and construction of water supply systems. HARP was established in Sep. 2016, and surveyed water supply systems at Bandung City of Indonesia in July 2017.

Stand 90
HERMANN SEWERIN GMBH
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Hermann Sewerin GmbH
Technology leader for gas and water leak detection equipment
The Sewerin group of companies is a family owned group with its headquarters in Gütersloh, Germany. Core business is the development, production and global distribution of electronic measuring equipment for the gas and water supply and distribution industry.

Stand 40
HERON INSTRUMENTS INC.
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Heron is committed to designing and manufacturing high quality water monitoring instruments and systems. We offer a broad range of water level monitoring instruments to monitor changes in the water table level. These include water level meters, oil/water interface meters, data loggers, real time monitoring systems and our new borehole camera.

Stand 227-C
HINODE, LTD.
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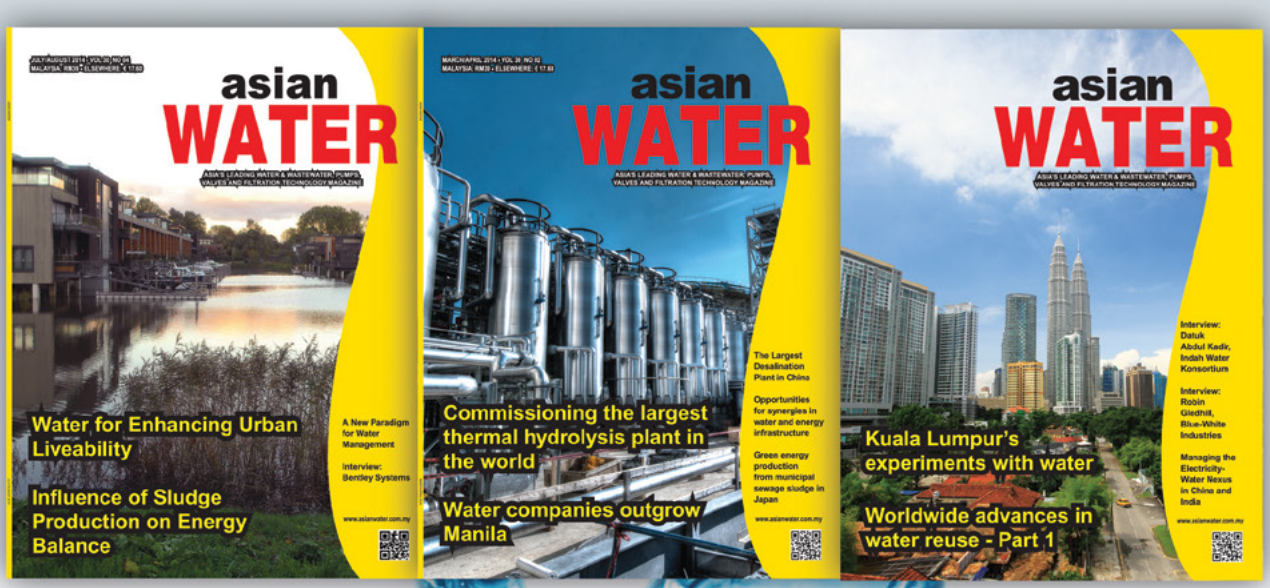
General Email: t-nishie@hinodesuido.co.jp

HINODE has manufactured and sold cast-iron manhole covers and associated products used for social-infrastructure development. We are the leading company in Japan in the field of manhole covers, and the basic structure of the covers we have developed through our strong technological capabilities have become the de facto industry standard.

asian WATER



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Stand 135 / 242-B
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Contact person: Please contact the following General Email.
Address: 5-2, Higashi-ikebukuro 4-chome, Toshima-ku
Tokyo 170-8466
Japan
Phone number: Please contact the following General Email.
Web address: www.hitachi.com/businesses/infrastructure/product_site/water_environment/index.html
General Email: General Email Contact

In the water business, Hitachi offers a variety of products, systems, and services for almost a century. As welcoming the IoT era, we deliver innovations to society and customers by leveraging three strengths – operational technology(OT), IT and products/systems.

Stand 117
HITACHI ZOSEN CORPORATION
Contact person: Naoya Fujita
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Shinagawa-ku, Tokyo 140-0013
Japan
Web address: www.hitachizosen.co.jp/english/
General Email: fujita_n@hitachizosen.co.jp

Hitachi Zosen Corporation is a global leading engineering company in wide-ranging fields such as environmental systems, industrial plants, processing equipment and more. We have built a number of plants and systems to provide safe and reliable water and energy solutions to our clients across the globe for nearly 130 years.

Stand 252-B
HORIBA ADVANCED TECHNO, CO., LTD.
Contact person: Takao Asai
Address: 31, Miyanonishi-cho, Kisshoin
Minami-ku, Kyoto 601-8306
Japan
Phone number: (81)75-321-7184
Web address: www.horiba-adt.jp
General Email: Takao.asai@horiba.com

HORIBA Advanced Techno is covering tasks such as environmental measurement and semiconductor cleaning. By providing the instruments critical to such areas as water treatment, semiconductors, the environment, agriculture, aquaculture and foodstuffs, is a lifeline supporting modern living, the operations of a wide swath of industry.

Stand 5
HYDRO-DIS
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Holden Hill SA 5088
Australia
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Web address: www.hydro-dis.com.au
General Email: mark@hydro-dis.com.au

Hydro-dis® has developed a unique and now proven technology that can disinfect water in potable and waste water applications and oxidises metals improving the efficency of removal, without the need to transport, store and use hazardous chemicals. Hydro-dis is a modular, portable system designed for cost-effective use in rural and isolated communities. It replaces traditional techniques that rely heavily on hazardous chemicals. We are driven by the imperative of finding 'a better way': while the world has large quantities of water, the amount available for human consumption is extremely limited.

Stand 5 / 50
HYDROKO
Contact person: Marco Indigne
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1880 Kapelle op den Bos
Belgium
Phone number: +32 1571 1970
Web address: www.hydroko.com
General Email: info@hydroko.com

Hydroko is a privately owned, industrial company based in Belgium. Its core business is the production of top quality valves and IoT applications for the public water supply networks. Owing to its latest innovation : an automated, remotely controlled valve, Hydroko is now further expanding internationally through a network of carefully selected partners.

Stand 40
HYDROMANTIS ENVIRONMENTAL SOFTWARE SOLUTIONS, INC

Contact person: Dr. Rajeev Goel
Address: 407 Kingst West
L8P 1B5 Hamilton, Ontario
Canada
Phone number: 905 522 0012
Website: www.hydromantis.com
Email: info@hydromantis.com

Founded in 1985, a unique employee-owned Canadian environmental engineering and software company specializing in the development and application of innovative software-based technology for modelling, simulation, and control of wastewater treatment plants. The developer of GPS-X, a dynamic modeling and simulation platform for wastewater treatment plants. Hydromantis products and services have received attention from engineers and researchers around the world.

Stand 275-A
IBARAKI PREFECTURAL GOVERNMENT
Public Enterprise Bureau
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Mito-city, 310-8555, Ibaraki
Japan
Phone number:+81-29-301-4933
Web address: www.pref.ibaraki.jp/kigyou/
General Email: kikei@pref.ibaraki.lg.jp

Ibaraki prefecture which is located in a neighborhood of Metropolitan Tokyo is using Kasumigaura Lake with the size in the 2nd of country as one of tap water sources.
We are studying world's first water purification technology which using the Advanced Oxidation Process (AOP) and the Magnetic Ion Exchange Resin at Kasumigaura water purification plant (ability 150,000m3/day of facilities) for remove musty odor and organic water which cause of the trihalomethane effectively.

Stand 70
ICHIGO HOLDINGS CO., LTD.
Contact person: Eiki Omata (Mr.)
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Tokyo 141-0022
Japan
Phone number: +81-3-5793-3215
Web address: www.aquanext-inc.com/en/index.html
General Email: e-omata@ichigo-net.co.jp

We, ICHIGO HOLDINGS, strive and aim to establish an ecological recycling society by solving environmental problems with our advanced technologies. Our mission is to produce and serve technology, know-how and the business model needed for each community by organizing the most suitable project team.

Stand 80
INFORMETICS
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1127 København K
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Phone number: +4530206942
Website: www.informetics.com
Email: pr@informetics.com

InforMetics focusses on solving real problems in close collaboration with the Wastewater Utilities - through a flexible approach to real-time data from any source. InforMetics specializes in systems that combine measurements with analysis, machine learning, nummerical modelling and forecasts. We typically develop tailor-made solutions accessed through web apps or API's.

Stand 40
INRS UNIVERSITÉ DE RECHERCHE
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Québec
Canada
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General Email: RD.Tyagi@ete.inrs.ca

The Institut national de la recherche scientifique (INRS) is a graduate university composed of four research and teaching centers located in different cities (Montréal, Laval, Varennes and Quebec). INRS plays a key role in the advancement of scientific knowledge and the training of highly qualified workers in strategic sectors of research, both in Quebec and in the rest of the world.

Stand 40
INTERNATIONAL CENTRE OF REGULATORY EXCELLENCE - ICORE
Contact person: Kevin Parks, Alberta Energy Regulator
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General Email: info@icoreglobal.ca

ICORE is an independent, politically neutral, not-for-profit global institute designed to serve the unique needs of regulatory authorities and the entities they protect as they evolve and pursue regulatory excellence. ICORE provides training, innovation and advisory services to regulatory and international organizations (including energy) in Canada and internationally.

Stand 5
ISLE UTILITIES
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General Email: annelies.schenk@isleutilities.com

Isle Utilities is an Water Consultancy firm. We Bring new technologies to life by connecting expertise, investment and inspired ideas across the globe. We identify challenges, connect technologies, organize collaborative evaluations, secure external investment, provide online tools and organize Industry events to accelerate market uptake.

Stand 8
IWA-ASPIRE 2019 HONG KONG
Contact person: IWA-ASPIRE 2019 Conference Secretariat c/o International Conference Consultants Ltd.
Address: Unit C-D, 17/F, Max Share Centre, 373 King's Road
North Point, Hong Kong
Phone number: (852) 2559 9973
Web address: www.iwaaspire2019.org
General Email: info@iwaaspire2019.org

The International Water Association Regional Committee of Hong Kong, China is delighted to host the IWA-ASPIRE Conference on 31 October – 2 November 2019 in Hong Kong.

With the theme of "Smart Solutions for Water Resilience", the highlights of the Conference will be smart and novel solutions for building up water resilience capability in Hong Kong in respect of water resources & supply, flood prevention and sanitation.
Come and see more at the IWA-ASPIRE 2019 in Hong Kong.

Stand 74
IWA WATER-WISE CITIES PAVILION
Contact person: Lisa Andrews
Address: Anna van Buerenplein 48
Den Haag 2595 AA
The Netherlands
Phone number: 070 315 0792
Web address: www.iwa-network.org/projects/water-wise-cities/
General Email: water@iwahq.org (Lisa.Andrews@iwahq.org)

Engage with the IWA throughout the week at the Water-Wise Pavilion, which will focus on the role of connecting utilities to their cities and basins and to exchange with key urban actors rethinking utility service boundaries to transition to water-wise cities. The pavilion will host interactive content on regenerative services, water-sensitive urban design, and water-wise basins, with a focus on inspiring action towards a water-wise world using the IWA Principles for Water-Wise Cities.

Stand 40
IWA WORLD WATER CONGRESS & EXHIBITION 2022 – TORONTO, CANADA
Canada invites you to Toronto - one of the greatest Water Cities in North America, if not the world! We are so proud to host IWA's World Water Congress & Exhibition, August 14-18, 2022 and we are excited to welcome delegates and exhibitors from every country in the world. Water is part of our national identity in Canada. Toronto is one of the safest, most-vibrant, multi-cultural and welcoming cities in the world and August is the best time to visit Canada - from Niagara Falls to the Thousand Islands to wilderness adventures.

Stand 285-A
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
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Tokyo 102-8012
Japan
Phone number: +81-3-5226-9506
Web address: www.jica.go.jp/english/index.html
General Email: gegwt@jica.go.jp

JICA, an incorporated administrative agency in charge of administering Japan's ODA, is one of the world's largest bilateral aid agency. Under its new vision "Leading the world with trust", JICA supports the resolution of issues in developing countries through a flexible combination of various types of assistance methods.

Stand 203-E
JAPAN VALVE MANUFACTURERS' ASSOCIATION
Contact person: Sasaki Masaya (Mr)
Address: 5th Floor, Kikai-Shinko Bldg. 3-5-8, Shiba-Koen
Minato-Ku, Tokyo 105-0011
Japan
Phone number: +81-3-3434-1811
Web address: www.j-valve.or.jp
General Email: info@j-valve.or.jp

Japan Valve Manufacturers' Association was established on 1954, with the participation of major domestic valve manufacturers for contributing to the expansion and advancement of the Japanese valve industry.

Stand 271-D
JAPAN WATER ENDOSCOPE CAMERA ASSOCIATION
Contact person: Masakazu Yamamoto
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Hyogo
Japan
Phone number: +81 78-291-4666
Web address: www.jweca.org
General Email: info@jweca.org

We are an association that has developed methods to check internal conditions of pipelines with cable camera without suspending the flow of water. Currently, the association consists of 38 corporate members and 4 support members.

Stand 201-E
JAPAN WATER PURIFIER ASSOCIATION
Contact person: Naotaka Ueda, Kazuo Aoki
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Japan
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Web address: www.jwpa.or.jp
General Email: jwpa@jwpa.or.jp

JWPA (Japan Water Purifier Association) was originally founded in 1972 as a nationwide "council" consists of household purifier manufacturers.
The new tasks for JWPA are to catch up the new trend of water purifiers. JWPA is working on the development of standards and requirements for these new types of water purifiers.
JWPA is also looking out the overseas market. Since 2011, JWPA has started to develop a relationship with NSF International.

Stand 273-A
JAPAN WATER RESEARCH CENTER
Contact person: Kuni Takahashi
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Tokyo, 105-0001
Japan
Phone number: +81-3-3597-0211
Web address: www.jwrc-net.or.jp/english/
General Email: jwrcweb@jwrc-net.or.jp

JWRC is a nonprofit research institute aiming to solve important challenges facing water supply services in Japan. We implement various investigations, research and development projects, and collaborations with utilities, corporations, and academics in Japan and abroad. Through these activities, we contribute towards enhanced public health and living environments.

Stand 218-C
JAPAN WATER STEEL PIPE ASSOCIATION
Contact person: Yoshio Noguchi Executive director
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Tokyo 102-0074
Japan
Phone number: +81-03-3264-1855
Web address: www.wsp.gr.jp
General Email: wsp@wsp.gr.jp

Japan Water Steel Pipe Association is promoting technical development and improvement, as the keywords for seismic upgrade and life-span extension, in order to meet the needs of the age. And, we are stably supplying excellent steel pipe and working with an aim to expand our market further.

Stand 213-G
JAPAN WATERWORKS NEWSPAPER COMPANY
The Japan Waterworks Newspaper Company is the news media which has served to promote the spread and improvement of water supply and sewerage systems for over sixty years. Through our service, we hope to contribute to the building of a sustainable water infrastructure in our country. Our publications include specialist papers Japan Waterworks Newspaper and Japan Sewerage Newspaper, and a monthly magazine Waterworks Opinion.

JAPAN WATER WORKS ASSOCIATION

Stand 278-A
JAPAN WATER WORKS ASSOCIATION
Contact person: Masao Shibuya
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Japan
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General Email: kokusai@jwwa.or.jp

Japan Water Works Association (JWWA) was established on May 12th, 1932 with the aim of introducing water supply facilities and developing water supply technologies in Japan.
JWWA's main activities include research and study of water supply management, technologies and water quality. Those activities are quite essential for people's daily life.

JFE

Stand 145 / 246-B
JFE ENGINEERING CORPORATION
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Japan
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Email: kuroiwa-ayako@jfe-eng.co.jp

JFE Engineering is the leading engineering company in Japan and globally whose strength lies in various fields such as water solutions and environmental solutions. We are constantly developing new and innovative solutions for every stage of the water cycle, from water intake to its discharge to the environment.

Johkasou System Association JSA

Stand 244-B
JOHKASOU SYSTEM ASSOCIATION
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Tokyo, 105-0012
Japan
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Web address: www.jsa02.or.jp
General Email: office@jsa02.or.jp

"Johkasou" is a term for Night Soil Treatment and Decentralized Wastewater Treatment Systems Johkasou System Association is a body of the manufacturers of Johkasou and the parts. Who promote the spreading, developing the new technology and sophistication.

kamstrup

Stand 80
KAMSTRUP
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8660 Stilling
Denmark
Phone number: +45 89 93 10 00
Website: www.kamstrup.com
Email: info@kamstrup.com

We provide utilities around the world with state-of-the-art ultrasonic water meters, high-performing remote reading solutions, advanced monitoring of pressure and leakages as well as intelligent data analytics.

We deliver solutions in all shapes and sizes. While every project is unique, our starting point is always the same – you, the customer.

KANSEI 管清工業株式会社

Stand 151 / 269-D
KANSEI COMPANY
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Tokyo
Japan
Phone number: +81 03-3709-5151
Web address: www.kansei-pipe.co.jp
General Email: b-tisserand@kansei-pipe.co.jp

Kansei is a Japanese company who has been operating for over 50 years.
The company is specialized in maintenance and operation management of public and private sector sewer pipes all over Japan. This include inspection, cleaning and rehabilitation using new technologies and backed up by comprehensive and expert knowledge.
24/7, 365 days a year. You can count on us!

WDRC Water Desalination and Reuse Center

Stand 7
KAUST WATER DESALINATION AND REUSE CENTER
Contact person: Paul Buijs
Address: King Abdullah University of Science and Technology
Thuwal 23955-6900
Saudi Arabia
Phone number: +966 128084967
Web address: wdrc.kaust.edu.sa
General Email: wdrc@kaust.edu.sa

WDRC is a globally recognized research leader in desalination and wastewater reuse, advancing the science and technology of water systems. WDRC seeks to shape the direction of emerging trends in the water sciences and technology in three flagship themes: (i) Greener Desalination; (ii) Water Security; and (iii) Waste to Resource.

Kawasaki
Powering your potential

Stand 210-G
KAWASAKI HEAVY INDUSTRIES, LTD.
Contact person: Energy System Division Sales Center
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Tokyo 105-8315
Japan
Phone number: +81 3-3435-2533
Web address: global.kawasaki.com/en/
General Email: webh6ov@khi.co.jp

Kawasaki Heavy Industries produce diverse products forth into wide-ranging fields that go beyond land, sea, and air. For the water industry, Kawasaki's Gas turbine standby generator sets play important role to keep water treatment facilities running in case of an emergency such as a power outage or disaster.

儀展科技
KETECH INSTRUMENT

Stand 95
KETECH SCIENTIFIC INSTRUMENT CO., LTD.
Contact person: Mr. Tony Lou
Address: 7F-2, No. 286-4, Shin-Ya Road, Cheng-Chen Dist.
Kaohsiung
Chinese Taipei
Phone number: +886-7-8155899
Web address: www.ketech.com.tw
General Email: Head.Office@ketech.com.tw; marketing@ketech.com.tw

Ketech Instrument, founded since 1992, has established its profound status as a professional instrument company. With more than 25 years experiences in industrial analysis, Ketech has devoted to the design and manufacture for water quality in-line monitoring analyzers, process instrumentation and system integration. Its factory is situated in Kaohsiung Chinese Taipei where provides a good environment for developing state-of-the-art products and technologies for customers.

株式会社 木村工業
KIMURA TECHNICAL Co.,Ltd.

Stand 205-G
KIMURA TECHNICAL CO., LTD
Contact person: Koichi Kimura
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Web address: kimura-kougyou.com
General Email: 51@kimura-kougyou.co.jp

We, Kimura Industry have been dedicated to providing social services through public works. Kimura Industries specializes in waterworks and has a reputation in contributing to recovery work of the Great East Japan Earthquake, which occurred on March 11th 2011.
The company also expand business field to sewage works, road works etc.
We will continue to contribute to the lifeline of people and create the future.

KOWBA

Stand 279-A
KITAKYUSHU OVERSEAS WATER BUSINESS ASSOCIATION
Contact person: Hayashida Mitsushi
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Kitakyushu 803-8510
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Web address: kowba.jp
General Email: mizubikyougikai_01@kowba.jp

The Kitakyushu Overseas Water Business Association (KOWBA) is an organization that aims to actively promote water business initiatives overseas through public-private partnerships in Kitakyushu City. KOWBA carries out activities to understand the seeds and needs of private companies, conducts studies on local needs overseas, exchanges and shares information with association members and related organizations, and examines and promotes methods for overseas development and the formulation of concrete projects through public-private partnerships.

Realdania
Klimaspring

Stand 80
KLIMASPRING
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2100 Copenhagen
Denmark
Phone number: +45 40 98 44 55
Website: www.klimaspring.dk
Email: klimaspring@smithinnovation.dk

'Klimaspring' is a campaign initiated and financed by Realdania to support corporate-driven development efforts and new rainwater management solutions to make Denmark a leading force within climate adaptation technologies aiming at creating better cities and green growth. Smith Innovation serves as administrative secretariat for the campaign.

KOBELCO ECO-SOLUTIONS CO.,LTD.

Stand 231-B
KOBELCO ECO-SOLUTIONS CO., LTD.
Contact person: Hiroshi Tochiki
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Tokyo 141-8688
Japan
Phone number: +81-3-5739-6527
Web address: www.kobelco-eco.co.jp
General Email: kobelco-watertreatment@kobelco-eco.com

We will contribute to society as an "Environmentally Solutions Enterprise in sync with the Times" by offering our advanced water treatment technology useful to both global environmental conservation and living environment improvement.

Kubota

Stand 125 / 206-G
KUBOTA CORPORATION / WATER & ENVIRONMENT BUSINESS PROMOTION DEPT.
Contact person: Gintaro Takahashi
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Japan
Phone number: +81 3 3245 3070
Website: www.kubota.com
Email: kbt_g.mizusoukatsu@kubota.com

Ever since 1890, Kubota has worked to provide various products that contribute to people's lives and communities around world, such as iron piping for modern water service facilities and agricultural machinery.
And now, we are developing our business globally through products, technology, and services offering an upstream to downstream water solution.
Setting SDGs as a compass, Kubota will make continuous efforts to solve the social problems and support the future of the earth.

KURIMOTO

Stand 152 / 222-C
KURIMOTO, LTD.
Contact person: Toshiya Tanaka
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Osaka 550-8580
Japan
Phone number: +81-6-6538-7641
Web address: www.kurimoto.co.jp/worldwide/en/
General Email: tetsu_kikaku@kurimoto.co.jp

Kurimoto has contributed to building social infrastructure over 100 years since our foundation in 1909. Our main products are ductile iron pipes and valves for water supply. We continue to strive to improve and service our products throughout their lifecycle and build more safe and secure lifelines in the world.

株式会社クロダイト KURODITE Corporation

Stand 69
KURODITE CORPORATION
Contact person: Akimasa Kuroda
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Japan
Phone number: +81-(0)566-53-0901
Web address: www.kurodite.co.jp
General Email: info@kurodite.co.jp

KURODITE have supplied waterworks parts and original line stopping systems (ABS method) for Japanese life-lines since 1928.
KURODITE Strengths:
* Strict Quality Control
* Corrosion, Load, and Impact Resistance of KURODITE Original Alloy Ductile Iron
* Simple, Safe, and Easy handling of the Air-bag Line Stopping System (ABS method)

KYOWA

Stand 241-B
KYOWA KAKO CO.,LTD.
Contact person: Shuka Haraguchi
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Japan
Phone number: +81(0)3-3494-1311
Web address: www.kyowa-kako.co.jp
General Email: info@kyowa-kako.co.jp

Kyowa Kako manages sewage treatment and composting various organic wastes such as sewage sludge, livestock excreta and food garbage using aerobic, high-temperature composting system. The products are very safe and good quality for sustainable agriculture. The number of the composting plants are 28 in Japan and 2 in Philippines.

LG SONIC

Stand 5
LG SONIC B.V.
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Zoetermeer
Netherlands
Phone number: +31 (0) 70-7709030
Website: www.lgsonic.com/
Email: t.gunther@lgsonic.com

Since 1999, LG Sonic has been a leading international manufacturer of chemical-free algae control and biofouling prevention systems. Our latest innovation, the MPC-Buoy, is a floating, solar powered, platform that combines real-time water quality monitoring, web-based software, and ultrasound technology to effectively control harmful algal blooms in large water surfaces.

LUMINULTRA microbial monitoring

Stand 5
LUMINULTRA TECHNOLOGIES LTD.
Contact person: Arthur Kokolekos (arthurk@luminultra.com)
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Fredericton, New Brunswick
Canada, E3B 6G3
Phone number: +61 434 771 881
Web address: www.luminultra.com
General Email: sales@luminultra.com

LuminUltra Technologies are the developer and global market leader of 2nd Generation ATP rapid microbial monitoring solutions. With new DNA testing platforms applied through our LuminUltra Cloud software to facilitate on-the-spot insights and action guidance for operators of all levels of expertise in any water application to save time and money.

Aqua Tech

Stand 253-B
MAEZAWA INDUSTRIES, INC.
Contact person: International Dept.
Address: 5-11, Naka-Cho, Kawaguchi-Shi
Saitama, 332-8556
Japan.
Phone number: +81-48-253-0061
Web address: www.maezawa.co.jp/english
General Email: intl@maezawa.co.jp

Since the establishment of the company in 1937, Maezawa Industries, Inc. has been engaged in designing, manufacturing, marketing and sales of valve, water treatment equipment for waterworks and wastewater over 80 years to increase reliability of customers. Our commitment to quality and performance has been earning customer trust.

MDPI
Academic Open Access Publishing since 1996

Stand 105
MDPI (MULTIDISCIPLINARY DIGITAL PUBLISHING INSTITUTE)
Contact person: Ms. Angel Wang
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Switzerland
Phone number: +41 61 683 77 34
Web Address: www.mdpi.com
General Email: comms@mdpi.com / water@mdpi.com

MDPI is an academic open-access publisher with headquarters in Basel, Switzerland. MDPI publishes 177 peer-reviewed, scientific, open access journals. All journals uphold a peer-reviewed, rapid, and rigorous publication process to publish your work under a CC BY license, in a fast and straightforward manner, and to reach a wide readership.

MEIDEN
Quality connecting the next

Stand 126 / 236-B
MEIDENSHA CORPORATION
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141-6029 Tokyo
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Email: fukuoka-t@mb.meidensha.co.jp

Meiden has been involved with the infrastructure building in terms of power, water processing and rail. In water processing field, Meiden's key product portfolio includes: drinking water and wastewater treatment plant including SCADA and power distribution, renewable energy systems and our Cloud-computing system.

MESCO

Stand 223-C
MESCO, INC.
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Web address: www.mesco.co.jp
General Email: pipe_ekikaku_com@mesco.co.jp

MESCO is an engineering company which developing in various fields, non-ferrous metals, electronical materials, environmental related facilities, and pipe materials in the worlds over a half century since established in 1964. And many products which matched customers' various requirements at any stage from planning to construction are lineuped.

METAWATER

Stand 137 / 243-B
METAWATER CO., LTD.
Contact person: Takashi Yuasa
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Japan
Phone number: +81-3-6853-7317
Web address: www.metawater.co.jp/eng/
General Email: info-kaigai@metawater.co.jp

METAWATER is one of the leading water and environment engineering companies with both of mechanical and electrical engineering expertise. As we can provide a total solution from design, construction up to O&M, we are ranked at top-class in EPC business for municipal drinking water and wastewater treatment market in Japan.

Stand 100
MING KUAN MACHINERY MANUFACTURING ENTERPRISE CO.,LTD.
Contact person: Derrick.Lee
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TaiPei 10476
Chinese Taipei
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Ming Kuan Machinery MFG. ENT. Co., Ltd. (Referred as MK below) is a professional valve manufacturer for more than 47 years. Throughout the year, MK has supplied valves for the major project domestically and internationally.
MK is mainly manufacturing in special valve. We have not only sold to South East Asia region but also to the developed country like the United States of America, France and etc. MK owns large-scale of testing facilities.

Stand 277-A
MINISTRY OF HEALTH, LABOUR AND WELFARE (MHLW), JAPAN
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Phone number: 81-3-3595-2368
Web address: www.mhlw.go.jp
General Email: suidougijutsu@mhlw.go.jp

MHLW has jurisdiction over water supply in Japan.
The main roles are as follows:
-Governance of Waterworks Act
-Approval of water utilities license
-Supervision of water quality
-Supervisory guidance and entry inspection
-Financial assistance
-Dealing with international affairs
-Promotion of research and development

Stand 66
MITSUBISHI CHEMICAL CORPORATION / MEMBRANE GROUP
Contact person: Kyohei Ozaki
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Tokyo 141-0032
Japan
Phone number: +81-3-6748-7467
Web address: www.m-chemical.co.jp/sterapore/en/index.html
General Email: membrane@m-chemical.co.jp

Mitsubishi Chemical group provides advanced MF/UF membrane filtration technologies for a wide range of applications.
"STERAPORE", is submerged MF/UF membrane with PVDF for MBR and has been installed in more than 5,000 MBR systems.
Key features of STERAPORE are "Easy Storage" and "No Need Backwash" and "No Need Drain Membrane Tank", "Available Integrated MBR System".

Stand 240-B
MITSUBISHI ELECTRIC CORPORATION
Address: Tokyo Building, 2-7-3, Marunouchi
Chiyoda-ku, Tokyo 100-8310
Japan
Phone number: +81 (3) 3218-2111
Web address: www.mitsubishielectric.com

For water industry, Mitsubishi Electric provides our Ozone system, SCADA system, electrical engineering and Eco-MBR. These systems allow stable WTPs and WWTPs operation and efficient water use. We have rich experience of electric engineering, so we are willing to offer you reliable, advanced and sustainable solution.

Stand 146
MORIMATSU INDUSTRY CO LTD
Contact person: Hiroki Takeda
Address: 2223-1, Soinakajima
501-1205 Motosu, Gifu
Japan
Phone number: +81(0)581-34-4211
Website: www.morimatsu.jp
Email: hiroki.takeda@morimatsu.jp

Morimatsu Industry is a pioneer in the development of water supply tanks, early on introducing the use of stainless steel.
Stainless steel water supply tanks we developed have offering superior strength, durability, sanitariness and watertightness.
Stainless steel water supply tanks are quickly constructed, and are easy to inspect once installed, thereby reducing maintenance costs.
And the recyclability of steel is gaining attention from environmental perspective.

Stand 221-C
MORITA IRON WORKS CO.,LTD.
Contact person: Rei Takahashi
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Tokyo 101-0032
Japan
Phone number:+81-3-5820-3088
Web address: morita-tekkousyo.co.jp
General Email: takahashi-r@morita-tekkousyo.co.jp

MORITA have been manufacturing of various valves (Butterfly valves, Check valves, Sluice valves and others) which correspond with various specification for a century since 1917.
MORITA's products are working in various field through relations between Water and People still more for Sewerage, Agricultural water and Industrial use.

Stand 9
MTD INTERNATIONAL BV
Contact person: Hans Verhoeven
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5032 ML Tilburg
The Netherlands
Phone number: +31 6 1095 3360
Web address: www.mtd.net
General Email: hans.verhoeven@mtd.net

For more than 25 years MTD has provided experienced and passionate employees, high quality equipment and the latest technology so that your project -anywhere in the world – can have optimal supply and treatment of water.
In collaboration with other organisations and suppliers our market specialists would be happy to work on your project. Safe drinking water is essential and therefore no risks can be taken.

Stand 247-B
NAGAOKA INTERNATIONAL CORPORATION
Contact person: Takuro Nishimura
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Chuo-ku, Osaka
Japan
Phone number: +81-6-6261 6601
Web address: www.nagaokajapan.co.jp
General Email: nicinfojpn1@nagaokajapan.co.jp

Founded in 1934, NAGAOKA International Corporation is one of the world's leading engineering and profile wire screen manufacturing firms providing total solution for groundwater intake & treatment. NAGAOKA has been growing globally and contributing to the world by leading and innovative technologies in the field of, "WATER" and "ENERGY".

Stand 85
NATIONAL WATER AND SEWERAGE CORPORATION, UGANDA
Contact person: Dr. Rose Kaggwa
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Kampala
Uganda
Phone number: +256 313 315111 / +256 313 315000
Web address: www.nwsc.co.ug
General Email: info@nwsc.co.ug

National Water and Sewerage Corporation (NWSC) is a public utility company 100% owned by the Government of Uganda providing water and sewerage services in urban centers across the country on a commercial and financially viable basis. At its inception in 1972 NWSC operated in only three (3) major urban centers, the Corporation has systematically and aggressively expanded its geographical service coverage and has expanded to 236 towns with an estimated population of over 8 million people.

Stand 209-G
NEC CORPORATION
Address: 7-1, Shiba 5-chome
Minato-ku, Tokyo 108-8001
Japan
Phone number: +81-3-3454-1111
Web address: www.nec.com
General Email: Please inquire from Contact Us of our home page.

Under the brand statement, "Orchestrating a brighter world," NEC Group is focusing on Solutions for Society businesses that utilize the strengths of ICT to create the social value of safety, security, efficiency and equality that is necessary for people to live more prosperous lives.

Stand 284-A
NEW ENERGY AND INDUSTRIAL TECHNOLOGY DEVELOPMENT ORGANIZATION - NEDO
Contact person: Yoichiro Miyokawa
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Saiwai-ku, Kawasaki City, Kanagawa 212-8554
Japan
Phone number:+81 44 520 5249
Web address: www.nedo.go.jp/english/index.html
General Email: mizujunkan@ml.nedo.go.jp

NEDO plays an important part in Japan's economic and industrial policies as one of the largest public research and development management organizations. It has two basic missions: addressing energy and global environmental problems, and enhancing industrial technology.

水道産業新聞社

Stand 208-G
NEWSPAPER OF WATERWORKS INDUSTRY
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Tokyo,105-0003
Japan
Phone number: +81-3-6435-7646
Web address: www.suidou.co.jp
General Email: sawayama@suidosangyo.jp

"Newspaper of Waterworks Industry" thinks about the global environment and people's living through "water". We are developing a wide range of coverage activities for the central government agencies, local public entities nationwide, affiliated companies, research institutes, related organizations, etc., mainly in water supply and sewage systems.

Stand 248-B
NIHON GENRYO CO., LTD.
Contact person: Asami SASA
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Kanagawa 210-0005
Japan
Phone number: +81 44 222 5555
Web address: www.genryo.co.jp/en/index.html
General Email: info@genryo.co.jp

NIHON GENRYO since 1939 is a manufacturer of sand filter media. For water/wastewater, we also manufacture “SIPHON TANK” which is an eco-friendly sand filtration device with cutting-edge technology. It needs no replacement of filter media. In emergency, Mobile type can be moved to disaster areas quickly.

Nihon Suido Consultants
Water and Environmental Consultants

Stand 260-F
NIHON SUIDO CONSULTANTS CO., LTD.
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Japan
Phone number: +81-3-5323-6200
Web address: en.nissuicon.co.jp
General Email: en.nissuicon.co.jp/contact/index.html

Nihon Suido Consultants Co., Ltd (NSC) is a leading water environmental engineering-consulting firm in Japan, which has been providing comprehensive consultancy services for water supply, wastewater, drainage, sanitation, river engineering and water environment in domestic and global markets including Official Development Assistance projects over the past six decades.

NIHON SUIKO SEKKEI

Stand 256-F
NIHON SUIKO SEKKEI CO.,LTD
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Tokyo, 104-0054
Japan
Phone number: +81-3-3534-5532
Web address: www.n-suiko.co.jp/en
General Email: water@n-suiko.co.jp

NIHON SUIKO SEKKEI CO.,LTD. is a Japanese leading consulting firm which supports water/wastewater utilities in their decision-makings at all life cycle of the assets. The main business is asset designing and improving utility’s asset management, which includes developing asset management system and supporting outsourcing projects, e.g. by PFI contract.

nijhuis
WATER TECHNOLOGY

Stand 9
NIJHUIS INDUSTRIES ASIA PACIFIC PTE LTD
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Singapore
Phone number: +65 9152 4937
Web address: www.nijhuisindustries.com
General Email: Duane.schlicht@nijhuisindustries.com

Nijhuis Industries provides a unique portfolio of smart game-changing solutions in sustainable water use and resource recovery combined with our intelligent services to create profit out of waste and (waste)water. Nijhuis Industries has a broad experience and application know-how within a wide range of industries, designing the most appropriate solutions to reduce, reuse and recover (waste)water.

NIKKISO

Stand 129
NIKKISO GIKEN CO., LTD.
Contact person: Jin Takano
Address: 20-3, Ebisu 4-Chome, Shibuya-ku
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Japan
Phone number: +81-3-3443-3732
Website: www.nikkiso.co.jp/products/duv-led/
Email: hp.uv-led.contact@nikkiso.co.jp

As a pioneer of “Deep UV-LED” supplier, NIKKISO GIKEN will release a innovative sterilizer to the municipal water market soon. DUV-LED has many attractive features, such as environmental friendly, compact design, long lifetime, selectable and singleness wavelengths, low voltage, controllability, instant on switch etc.

日本鋳鉄管株式會社

Stand 226-C
NIPPON CHUTETSUKAN K.K.
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Phone number: +81-(0)3-3546-7673
Web address: www.nichu.co.jp
General Email: shiiya@nichu.co.jp

Production is selling the following goods to NCK.
- Ductile iron pipe (waterworks, sewage and industrial waterworks,etc.)
- Ductile iron fittings
- Ductile iron manhole cover (a water supply, sewage, gas, electricity and for communication, etc.)
- Polyethylene pipe for gas
- Additionally cast iron product full set

NIPPON KOEI

Stand 258-F
NIPPON KOEI CO., LTD.
Contact person: Gaku Honda
Address: 1-14-6 Kudankita, Chiyoda-ku,
Tokyo 102-8539
Japan
Phone number: +81 3-3238-8030
Web address: www.n-koei.co.jp/english/
General Email: a3885@n-koei.co.jp

Nippon Koei is Japan’s No.1 International Engineering Consultants.
We provide engineering solutions for our clients by planning, designing and supervising construction of infrastructure projects in the fields of water resources, transportation, urban and public sector development.
For 70 years, we have worked on over 5,000 infrastructure projects in 160 countries.

Nishikawa

Stand 235-B
NISHIKAWA KEISOKU CO.,LTD.
Contact person: Terunari Matsuo,
Water Infrastructure Sales Division
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Tokyo, 151-8620
Japan
Phone number: +81-3-3299-1341
Web address: www.nskw.co.jp
General Email: webmaster@nskw.co.jp

Our company is an engineering company of “Measurement” “Control” “Analysis”.
In the water supply field, we are involved in various measurement and control systems such as measurement and control of flow rate, analysis of ingredients, adjustment of chemical quantity, etc. at the water purification plant.

Stand 255-F
NJS CO., LTD.
Contact person: Takayuki Sawai,
Corporate Planning & PR Division
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105-0023 Tokyo
Japan
Phone number: +81 3 6324 4341
Web address: www.njs.co.jp/en/
General Email: webmaster@njs.co.jp

For more than 65 years, NJS has worked as a comprehensive water and environmental consultant developing technologies for the treatment, management and the use of water. We offer the most reliable skills and services in this age of water stress, and will continue to solving regional and global issues.

Stand 91
NUKOTE COATING SYSTEMS
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Email: info@nukoteglobal.com

Nukote Coating systems is a protective coating and liner manufacturer. We supply advance products used in the rehabilitation of liquid containment and pipeline distribution systems. Our single source solution includes; next generation surface conditioners and primers, ultra-fast spray applied products, and cutting edge robotic application equipment.

Stand 23
OBOR ENVIRONMENTAL TECHNOLOGY AND INDUSTRY ALLIANCE
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China
Phone number: +8610-88380825
Web address: www.cin.cn
General Email: 335100618@qq.com

OBOR enviromental technology and industry alliance is established in the Center of Excellence for Water and Environment (CEWE) of the Chinese Academy of Sciences (CAS). It is jointly launched with the high-level enterprises actively involved in the China environmental protection market. The Establishment is aimed at promoting mutual understanding between China's water business enterprises and the devel-oping countries.

Office National de l'Electricité et de l'Eau Potable

Stand 85
OFFICE NATIONAL DE L'ELECTRICITE ET DE L'EAU POTABLE – ONEE
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Rabat Maroc
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Web address: www.onep.ma
General Email: communication@onee.ma

L'Office National de l'Electricité et de l'Eau Potable (ONEE), is a public institution, created in 2012 by the merger of l'Office National de l'Electricité (ONE) created in 1963 and l'Office National de l'Eau Potable (ONEP) created in 1972. ONEE is fully involved in major structuring projects for Morocco's sustainable development, providing the country with infrastructure for the production, transport and distribution of water and electricity as well as the treatment of wastewater.

Stand 10
ONTOTO
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Phone number: +61248693732
Web address: www.ontoto.com.au
General Email: info@ontoto.com.au

Ontoto specialises in ultra-low power, turnkey data logging and telemetry systems. With design and manufacturing inhouse we are able to rapidly develop and supply innovative solutions utilising the very latest technologies. Easy to deploy, robust and cost effective. Ontoto is honored to be part of IWA WWCE 2018 in Tokyo in providing the world water industry leaders with quality and affordable state of the art monitoring and compliance tools.

Stand 245-B
ORGANO CORPORATION
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Japan
Phone number: +81-3-5635-5100
Web address: www.organo.co.jp
General Email: Contact Form

Organo is a general water treatment engineering company that sells water treatment systems and chemicals to a wide range of industries. Organo operates three businesses: the plant business sells water treatment systems, the solution business maintains and manages delivered systems and the functional product business sells standard products and chemicals.

Stand 257-F
ORIGINAL ENGINEERING CONSULTANTS CO., LTD. (OEC)
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Japan
Phone number: + 81 3 6757 8806
Web address: www.oec-solution.co.jp/e/index.html
General Email: kaigai-site@oec-solution.co.jp

OEC is one of the Japanese leading engineering consultancy firm. OEC has developed its business in the various fields including water supply, sewerage works, industrial wastewater, stream pollution and rain flood control. OEC has expanded its operation overseas as it undertook various projects in Asia and Pacific Islands since 1977.

Stand 261-F
PACIFIC CONSULTANTS CO., LTD.
Contact person: Manami Suga
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Tokyo 101-8462
Japan
Phone number: +81 3-6777-3723
Web address: www.pacific.co.jp/e/
General Email: kokusai_eigyou@ss.pacific.co.jp

PACIFIC CONSULTANTS CO., LTD. (PCKK) is the leading engineering consulting firm in Japan, which has been providing wide range of consulting services in fields of infrastructure development since established in 1951. We have built up solid experiences with over 1,500 professional engineers in holistic approaches on studies, designs and planning, and construction supervision for infrastructure development.

Stand 109
PARKSON CORPORATION
Contact person: Roland Mueller
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United States of America
Phone number: +1-888-PARKSON
Web address: www.parkson.com
General Email: technology@parkson.com

Parkson is a leading supplier of equipment and solutions for industrial and municipal wastewater applications. Parkson designs, engineers and assembles products that provide customers with advanced screening, biological, filtration, and biosolids management solutions. We also have a highly-trained field service team capable of rebuilding/retrofitting equipment to meet the latest technological advancements.

Stand 268-D
PASCO CORPORATION
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Web address: www.pasco.co.jp/eng/
General Email: intl_sales@pasco.co.jp

Climate change poses serious challenges globally and sustainable response to water resources and water use is needed for humankind. PASCO's network in Japan and overseas provides information through advanced geospatial technology. We will contribute for the development of sound and sustainable water resources and water use utilizing the geospatial technology.

Stand 9
PENTAIR – X-FLOW
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Web address: xflow.pentair.com
General Email: xflow@pentair.com

PENTAIR | X-FLOW | PIONEER IN MEMBRANE TECHNOLOGY
Our membrane brand X-Flow develops and supplies high-quality innovative membrane technology for the filtration, separation, concentration, and purification processes of water and wastewater. Our product portfolio contains numerous innovative technologies for filtration and purification processes.
We are pioneers in membrane technology.
xflow.pentair.com

Stand 40
PENTOUGH CORPORATION
Contact person: Kunihiro Takakuwa
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Osaka-shi, Osaka, 531-0076
Japan
Phone number: (81)664581231
Web address: www.pentough.com
General Email: info@pentough.com

Established since 1991 and focus on the investigation of water level and water flow of sewers, diagnostic function, deterioration evaluation of the sewers, renting and selling of units focusing on service support for both the renting and sales of product that include open-water flowmeter, level meter, automatic water sampler and equipment rental all over Japan

Stand 11
PHOSLOCK WATER SOLUTIONS (LTD)
Contact person: Nigel Traill
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Australia
Phone number: +61-+61-2-9439-7715
Web address: www.phoslock.com.au
General Email: ntraill@phoslock.com.au

Phoslock Water Solutions is an environmental company specialising in engineering solutions and water treatment products to remediate impaired lakes, rivers, canals and drinking water reservoirs. PWS is the patent holder and manufacturer of Phoslock, a modified bentonite clay product that permanently immobilizes phosphorus, thereby reducing the incidence of harmful algal blooms and has been used on more than 250 lakes worldwide.

Stand 219-C
POLITEC
Japan Polyethylene Piping System & Integrated Technology Association For Water Supply
Contact person: Hiroshi Shirasawa
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Tokyo 101-0036
Japan
Phone number: +81-03-5298-8855
Web address: www.politec.gr.jp
General Email: info@politec.gr.jp

Polyethylene pipes and fittings are made of highly qualified polyethylene (PE100).
The pipes and fittings are integrally combined by EF (Electrofusion) jointing.
Excellent Features of Polyethylene Piping System such as long-term hydrostatic performance, light weight, flexibility, corrosion resistance and earthquake resistance, have been highly evaluated.

Stand 40
POLYTECHNIQUE MONTRÉAL
Contact person: Arash Zamyadi, Yves Comeau
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General Email: arash.zamyadi@polymtl.ca / yves.comeau@polymtl.ca

Polytechnique Montréal, a flagship of engineering in Québec, is also one of Canada's leading engineering teaching and research institutions. In keeping with its mission since 1873, it has trained nearly 46,000 engineers, specialists and researchers.

Stand 5
POWERTECH WATER
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PowerTech Water provides innovative solutions to water treatment through an electrochemical technology platform to remove TDS, metals, and/or chlorine. PTW develops and commercializes technologies converging on water & energy.
The PTW systems operate without the use of membranes, chemicals, or consumables providing a significant advantage over the competition.

Stand 283-A
PUC CO., LTD.
Contact person: Yutaka Saito
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Tokyo
Japan
Phone number: +81-3-3343-4560
Web address: www.puc.co.jp
General Email: project2@puc.co.jp

PUC Co.,Ltd., a member of the Tokyo Waterworks Group, has conducted water tariff computing system over 50 years.
Moreover, we have supplied high quality customer service for 13 million Tokyo citizens by operating Call Centers and branch offices.
Our top priority is to contribute to a local community with highly satisfactory services.

Stand 5
PURETERRA VENTURES
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General Email: info@pureterra.com

PureTerra Ventures is a venture capital fund focused on investing in disruptive water technologies with a positive social impact. With offices in The Netherlands and Shanghai we combine strong entrepreneurial experience, a proven track record in driving sales and a vast network in the global water technology market to create a unique value proposition for investors and portfolio companies alike.

Stand 80
RAMBOLL
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Email: info@ramboll.com

Ramboll is a leading engineering, design and consultancy company with 13,000 experts worlwide. Our global water consultants provide the highest level of assistance to our clients on their most challenging water management issues. Main services areas are climate adaptation landscape architecture, water & wastewater treatment, water & wastewater networks and water resource management.

Stand 237-B
SANKI ENGINEERING CO., LTD.
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Web address: www.sanki.co.jp/en/
General Email: daisuke_handa@eng.sanki.co.jp

The Sanki Engineering Group contributes to society in various business domains related to social infrastructure, including the Facilities Construction Business, which consists air conditioning, electrical systems, information and communications, and office relocation; and the Environmental Systems Business, which consists water and sewage treatment facilities and waste incineration facilities.

Stand 67
SASAKURA ENGINEERING CO., LTD.
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General Email: web_fimss@skm.sasakura.co.jp

Sasakura is firmly committed to its mission of "creating a better environment through water, heat and sound technology".

Stand 85
SENEGALAISE DES EAUX - SDE
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Senegal
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+221 77 633 11 71 (cellular)
Web address: www.sde.sn
General Email: ndiop@sde.sn

Since 23th of April 1996, Sénégalaise Des Eaux has been in charge of the drinking water service in urban areas. With 1200 collaborators, SDE is in charge of water drinking operation and maintenance for 66 urban areas and provides water for 6.5 million people daily in 66 urban areas in Senegal. the performance of the company has contributed significantly to the achievement of the millennium development goal (MDGs) by the state of Senegal.

Stand 214-C
SHIMIZU ALLOY MFG.CO.,LTD
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Web address: www.shimizugokin.co.jp
General Email: soumu@shimizugokin.co.jp

SGS is a manufacturer of waterworks valves established in 1947.
We've been developing the products that protect lifelines, utilizing fluid control technology that we have cultivated over many years, such as earthquake resistant / long-life valves, emergency shutoff valves and water purification equipment for Mini-scale water supply facilities.

Stand 94
SHINNAN CASTING FACTORY CO., LTD.
Contact person: Robert Teng
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Tainan City 710
Chinese Taipei
Phone number: +886-6-2534185
Web address: www.snpipe.com
General Email: trade@snpipe.com.tw

SHINNAN is the leader of Ductile Iron Pipes & Fittings in Chinese Taipei Water Industry. We have the most advanced technology and machines for supplying high quality Ductile Iron Pipes & Fittings. We supply Ductile Iron Pipes & Fittings from DN80mm up to DN2600mm to the world. SHNNAN has years of experience for overseas market, such as, Asian Countries, Mid-East, and we are capable to cooperate with clients to solve problems related to Ductile Iron Pipes and Fittings.

Stand 215-C
SHOWA RASENKAN SEISAKUSHO CO., LTD.
Contact person: Takehiro Nakamoto (En), Paula Xiao (Cn)
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Tokyo 174-0051
Japan
Phone number: +81 (0) 3 3967 5751
Web address: www.showarasen.co.jp
General Email: exp@showarasen.co.jp

Since 1947, we at Showa Rasenkan Seisakusho (SRS) have met and proudly surpassed the demands of waterworks engineers with our industrial solutions. Our flagship in-house stainless-tube-forming technology has been extensively employed by the Tokyo Metropolitan Government, and now thanks to expanded operations, to similar great success by metropolises throughout Asia.

Stand 74
SIAAP
Contact person: Jean-Pierre Tabuchi
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France
Phone number: +33 1 44 75 44 75
Website: www.siaap.fr

Sponsor of the IWA Water-Wise Pavilion.

SK-KAWANISHI

Stand 220-C
SK-KAWANISHI CO., LTD.
Contact person: Akihiro Kawanishi
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Japan
Phone number: +81 87 877 2800
Web address: www.sk-kawanishi.com
General Email: homepage@sk-kawanishi.co.jp

SK-KAWANISHI is the professional manufacturer of pipe couplings and fittings. Since 1952, we have established a comprehensive management system covering the whole process from design, development and manufacture to marketing, aspiring to open up the future of joint technology. SK-KAWANISHI has always been committed to producing innovative and original products.

SK VALVES

Stand 101
SK VALVES CO., LTD.
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Wanluan Township, Pingtung County 923
Chinese Taipei
Phone number: + 886 8 783 3834
Web address: www.skvalves.com.tw
General Email: international@skvalves.com.tw

SK VALVES was established in south of Chinese Taipei since 1966, and is a famous valve manufacturer and own
more than 50 years' experience in field of water resource.
Moreover we respect customers' feedback and willing to work together in pursuit of a win-win solution that not only retain in prosperity business but also bring a friendly living environment.

Smith
Innovating construction

Stand 80
SMITH INNOVATION
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Phone number: +45 40 98 44 55
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Smith Innovation is a consultancy working with research and development in the building and water/wastewater industries to help realize, transform and implement ideas into ready-for-market solutions. With a cross-disciplinary approach, we work with public authorities and private stakeholders to create innovation and foster dialouge across organizations and professions.

SODECI S.A.

Stand 85
SOCIETE DE DISTRIBUTION D'EAU DE LA CÔTE D'IVOIRE
COMPANY OF DISTRIBUTION OF WATER OF COTE D'IVOIRE
Contact person: Basile Ebah, Managing Director
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The COMPANY OF DISTRIBUTION OF WATER OF COTE D'IVOIRE (SODECI), created in 1959, is a water utility company of the ERANOVE group, with an agreement bound to the State of Côte d'Ivoire under affermage contracts for both pipe-water distribution and sewerage.

SPRINGER NATURE

Stand 9
SPRINGER NATURE
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State of Green
Connect. Inspire. Share. Think Denmark

Stand 80
STATE OF GREEN
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State of Green is a not-for-profit, public-private partnership from Denmark. We foster relations with international stakeholders interested in discussing their challenges and bring into play relevant Danish competencies and technologies that enable the green transition. As your one-point entry to more than 600 Danish businesses, governmental and academic institutions, experts, and researchers, State of Green connects you with all leading Danish players working to drive the global transition.

SUEZ

Stand 103
SUEZ
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With the full potential of digital technologies and innovative solutions, SUEZ secures water resources, delivering drinking water, wastewater treatment services and smart solutions to cities and industries. Our 90,000 employees worldwide are committed to reinvent resource management and accompany our clients towards the circular economy.

Suido Kiko

Stand 238-B
SUIDO KIKO KAISHA, LTD.
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Phone number: +81-3-3426-2953
Web address: www.suiki.co.jp
General Email: www.suiki.co.jp/english/contact/

SUIDO KIKO is one of the leading EPC and O&M company in Japan since 1936, especially in the field of water and wastewater treatment. Our technologies are contributing to improved living environments not only in Japan, but also in many regions around the world.

SUIKEN

Stand 216-C
SUIKEN CO., LTD.
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Web address: www.suiken.jp
General Email: otoiawase@suiken.jp

As a manufacturer of joints for lifelines, we have been developing products and looking for global markets since the establishment in 1970. We have been sending our creative technologies and products like SUPER FLEX flexible expansion joint and S-GATE under pressure valve insertion to the world.

Sumitomo Corporation

Stand 211-G
SUMITOMO CORPORATION
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(Top of Infrastructure Business Development Team No.1 and No.2)
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Japan
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Web address: www.sumitomocorp.co.jp/english/
General Email: katsushi.takiguchi@sumitomocorp.com

Sumitomo Corporation engages in multifaceted business activities include sales of a variety of products and services within Japan, import and export, trilateral trade, and domestic and international business investment. We provide water supply, wastewater treatment and seawater desalination services to more than 20 million people around the world.

SUMITOMO ELECTRIC

Stand 229-D
SUMITOMO ELECTRIC INDUSTRIES, LTD.
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Using PTFE polytetrafluoroethylene, which has high chemical and heat resistance as well as higher durability, Sumitomo Electric has produced Poreflon™ as a MF/UF membrane module. Through "stable water treatment performance" and "high-quality customer service", we would propose water treatment systems that fully meet various customer needs.

Swing Corporation

PROVIDING INNOVATIVE SOLUTIONS FOR SUSTAINABLE WATER AND THE ENVIRONMENT

Join as at booth number 136
iwa2018.swing-w.com
swing-w.com/eng

Stand 136
SWING CORPORATION
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Phone number: +81-3-6830-9075
Website: www.swing-w.com/eng/
Email: pr.news@swing-w.com

Swing Corporation is a leading water solutions provider with head office in Tokyo serving both municipal and industrial customers in domestic and overseas markets. We design, build, operate and maintain water and waste water treatment plants using water and environmental technologies developed and proven in Japan over many decades.

Stand 5
SYSTEA – SYSTEMS TECHNOLOGY ADVANCE S.P.A.
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Italy
Phone number: +39-0775-776058
Web address: www.systea.it
General Email: info@systea.it

From 1998 SYSTEA S.p.A. develops and markets worldwide analytical instruments measuring more than fifty chemical parameters in water, including acute toxicity, for routine laboratory, on-line, in-situ and portable field applications, providing a complete start-up, management and maintenance service to the Customer, through our international network of trained commercial partners.

Stand 138 / 224-C
TAISEI KIKO CO., LTD.
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5300001
Japan
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Email: overseas@taiseikiko.com

Since its foundation in 1941, TAISEI KIKO has pioneered Japan's water, sewage, and gas pipeline maintenance sector, continuously engaged on the frontier or technological innovation in product development and maintenance. TAISEI KIKO is firmly committed to research and development for the development and maintenance of waterworks infrastructure.

Stand 259-F
TEC INTERNATIONAL CO., LTD.
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Web address: www.teci.jp
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TEC International Co., Ltd. (TECI) is a Japanese consulting firm specialized for the global water sector market. TECI maintains sufficient professional staff to provide integrated consulting services for water and environmental engineering works, including project formulation, planning, designing, cost estimation, financial planning, tendering assistance, construction supervision and capacity development.

Stand 113
TEKREADER PTY LIMITED
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Email: don.stolee@eglootech.com

The tekReader platform is a set of light-weight publishing tools that focus on simplicity and productivity for the creation and maintenance of technical documentation that includes codes, specification, standards and more.
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If web browsers are found on every mobile device and desktop computer then so is tekReader.

Stand 5
TERRAHEIM CO., LTD., R.O. KOREA
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Web address: www.terraheim.co.kr
General Email: terraheim@terraheim.co.kr

Based upon its anti-microbial nano-composite technology, the biofilm-formation can be reduced dramatically in TerraSAN® water pipe. It ensures safety & biological stability of tap water and easy & economical maintenance of drinking water distribution network. This technology can be applied to any kind of fluid-transporting pipes to prevent biofouling.

Stand 281-A
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The Japan Institute of Wastewater Engineering and Technology (JIWET) is a Public interest incorporated foundation that conducts survey, research, development and evaluation activities related to sewerage services, and disseminate the results of those activities

Stand 225-C
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Victaulic Japan was established in 1929 as a manufacturer of piping joints for water purification plant, power plant, and factories. Especially "Closer joint" of expansion flexible joints is known as earthquake-resistance of pipe line. Victaulic Japan developed "VICsensorC" for improving safety of buried pipeline in 2017.

Stand 265-D
TOKYO GAS ENGINEERING SOLUTIONS CORPORATION - TGES
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General Email : ito-h@tokyogas-es.co.jp

Tokyo Gas Engineering Solutions (TGES) provides "one-stop solutions" for all the utility with dedication and responsibility to "design" and "create" the best solutions.
Concerning the water supply and sewer facility management requirements, We are contributing to 100 of utility operators in Japan by utilizing the system solution "TUMSY".

Stand 228-B
TOKYO KEIKI INC.
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General Email : overseas-sales03@tokyo-keiki.co.jp

Tokyo Keiki is a first manufacture of ultrasonic flowmeter among the world since 1963. Through the longest history, our products is adapted to variety of water and waste water application including Non-contacting radar level gauge. In 2017, we have established calibration flow facility for JCSS (IEC 17025) from DN50-DN600 up to 2000m3/h rate.

Stand 283-A
TOKYO METROPOLITAN SEWERAGE SERVICE CORPORATION
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General Email: Seiko-hayashida@tgs-sw.co.jp

TGS was established by applying the funds and technologies of the Tokyo Metropolitan Government (TMG) and private companies into practical use. We have been a group of professional sewerage engineers and are recognized as a reliable contractor for maintenance of sewerage facilities. TGS has become an indispensable partner of TMG.

Stand 127
TOMCO2 SYSTEMS
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General Email: sales@TOMCOsystems.com

TOMCO2 Systems has been a global leader in carbon dioxide equipment for over 45 years. Our water technologies division specializes in pH control for many applications in water / wastewater both in municipal and industrial applications. We have designed and commissioned over 13,000 carbon dioxide storage systems and over 1700 pH control system throughout the world. Our patented technology produces carbonic acid in an environmental friendly solution which will replace the use of harmful mineral acids.

Stand 270-D
TOMISU CO., LTD.
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Since our founding in 1937, Tomisu Co., Ltd. has manufactured water and sewage service related products to improve the everyday lives of people. Starting with fire hydrant manhole covers, we independently develop a range of products including iron air-valve covers and gate-valve caps, and supply them to cities, towns and villages all over Japan.

In this exhibition we will propose a form of underground installation management which utilizes IoT technology.
Manhole Security and Safety Solution using of IoT technologywith Hitachi Systems and e TRUST
Manhole RFID Solution for facility check and information acquisition (with ASIA AIR SURVEY)

Sumo© from Dynamita is the newest and most versatile dynamic simulation package on the market. After the influent measurements and plant configuration are entered, Sumo knows what kind of effluent quality will result, even daily peaks or during storms, and the user can try many operational or control scenarios in a short time. Sumo can handle treatment plants of unlimited complexity, with various process units used in municipal and industrial treatment plants. Sumo is used worldwide in Europe, North America, Australia and Asia by design engineers, plant personnel, as well as in universities.

Key points:

- Open source process code
- Fast simulation speed
- Modern interface with user friendly features
- Affordable pricing, support included in license
- Advanced ChemP and bio-P model
- Sulphur modelling (odour, ORP, EPS, colloids)
- THP, anaerobic digestion and post aerobic digestion
- Precipitation and side stream processes (Anammox)
- Physico-chemical separation, conversion processes
- Up-to-date aeration and gas transfer model

Stand 230-B
TORAY INDUSTRIES, INC.
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General Email: (Please come into contact from web)

Toray has continuously carried out development on advanced materials by integrating our core technologies: organic chemistry, polymer science, and biochemistry.

Utilizing reverse-osmosis membrane, hollow fiber membranes, and other high performance membrane technologies, Toray is expanding its business by moving into the area of seawater desalination, water purification and wastewater treatment.

Stand 239-B
TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORPORATION
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Web address: www.toshiba.co.jp/sis/en/environment/index.htm
Contact us: www.webcom.toshiba.co.jp/cs/environment/form_e.php

Toshiba has addressed the issues of water for over 40 years by supplying our systems and know-how of planning, construction and operation for the development of water infrastructure.
Toshiba will promise to contribute to the creation of sustainable water cycle by supplying our know-how and understanding diversity, culture and environment.

Stand 17
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Trenchless International is the official publication of the International Society for Trenchless Technology (ISTT) making it a trusted and respected source and the only truly international magazine dedicated entirely to Trenchless Technology. It is made up of a suite of products, including print and digital versions of the magazine, an e-newsletter and a comprehensive news website.

Stand 283-A
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TSS Tokyo Water Co., Ltd., a member of Tokyo Water Group, works alongside the Tokyo Metropolitan Government's Bureau of Waterworks in managing technological and engineering issues related to the water supply in the Tokyo area. TSS also employs its knowledge, technology and experience in the improvement of water supply systems around the world.

Stand 254-B
TSUKISHIMA KIKAI CO.,LTD.
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Engineering and construction of water purification plants and sewage treatment plants Manufacture of dewatering equipment, drying machine, incinerator and others Service of Operation & Maintenance

Stand 40
UNIVERSITY OF BRITISH COLUMBIA - UBC
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The University of British Columbia is a global centre for research and teaching, consistently ranked among the 40 best universities in the world. Since 1915, UBC's West Coast spirit has embraced innovation and challenged the status quo. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning. At UBC, bold thinking is given a place to develop into ideas that can change the world.

Stand 77
VEOLIA
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Veolia, the global leader in providing environmental services to communities and industries
In 2016, Veolia supplied 100 million people with drinking water and 61 million people with wastewater service, produced 54 million megawatt hours of energy and converted 30 million metric tons of waste into new materials and energy.

Stand 17
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Water and Wastewater Asia is an indispensable tool for trade professionals who are always on-the-go.
With a wide network to important and powerful leaders, our global reach will offer you the latest trends, developments and news in the industry with an Asian perspective.

Stand 17
WATER SOLUTIONS
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Water Solutions is the leading technical and scientific journal for water management and waste water technologies, hydrogeology, water reuse and rainwater harvesting, storage and distribution of water, treatment of waste water.

Stand 15
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Global expertise for local water challenges
Watershare's worldwide network of water research organisations and utilities is applying global expertise to master local water challenges. Member experts collaborate in developing knowledge and science-based tools. They then apply this expertise while tackling a wide variety of regional water issues. Watershare is showcasing projects and tools at IWA Tokyo to present concrete reference cases to end-users interested in benefiting from our global expertise.

Stand 280-A
WATERWORKS BUREAU, CITY OF KAWASAKI
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General Email: 80keikan@city.kawasaki.jp

Waterworks Bureau, City of Kawasaki is promoting international contribution based on two directions, which consists of international contribution through public-private partnership and international contribution through technical cooperation, to improve global issues of water environment.

Stand 16
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Email: contact@whirl-pak.com

At Whirl-Pak, we are committed to making the world a safer place by providing better sampling bags that produce better integrity in the results.

For almost 60 years Whirl-Pak has been a trusted partner to the lab sampling and testing industry by providing innovative solutions for the critical requirements of our customers.

Stand 12
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We are a company producing sensors and meters with connecting solutions. We participate IWA this year with our Water Pump Efficiency Solution which checks how well or how bad the water pump is running. Our solution recommends the most optimum, high efficient pump operating combination.

Stand 80
WONDERFUL COPENHAGEN CONVENTION BUREAU
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Copenhagen Convention Bureau offers professional services and advice to anyone planning a meeting, conference, incentive or event in Copenhagen. All our services are free of charge.
Wether you need help with finding the right meeting facilities, accommodation, transportation, social activities or so we offer all the support you need to ensure a successful congress or business event in Copenhagen.

Stand 114
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Xylem is a leading global water technology company committed to developing innovative technology solutions to the world's water challenges. The Company's products and services move, treat, analyze, monitor and return water to the environment in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced infrastructure analytics solutions for water, electric and gas utilities. For more information, please visit us at www.xylem.com.

Stand 73
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Yokogawa has been involved with manufacturing products that provide solutions for manufacturing sites such as measurement, control, information system and device company all over the world. Using Yokogawa's unique solutions and experiences, we will contribute to the sustainable water management for our customers.

Awarded "Infrastructure Maintenance Award" by six Ministries of Government.

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www.taiseikiko.com

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SUPER BALL

Valve inserting method under pressure

Plug Three Type

COSMO KOKI CO.,LTD

Head office 3-9-5 Nishi-shimbashi,Minato-ku,Tokyo (105-0003) ,JAPAN
TEL: (03) 3435-8806 FAX: (03) 3435-8825
https://www.cosmo-koki.co.jp/

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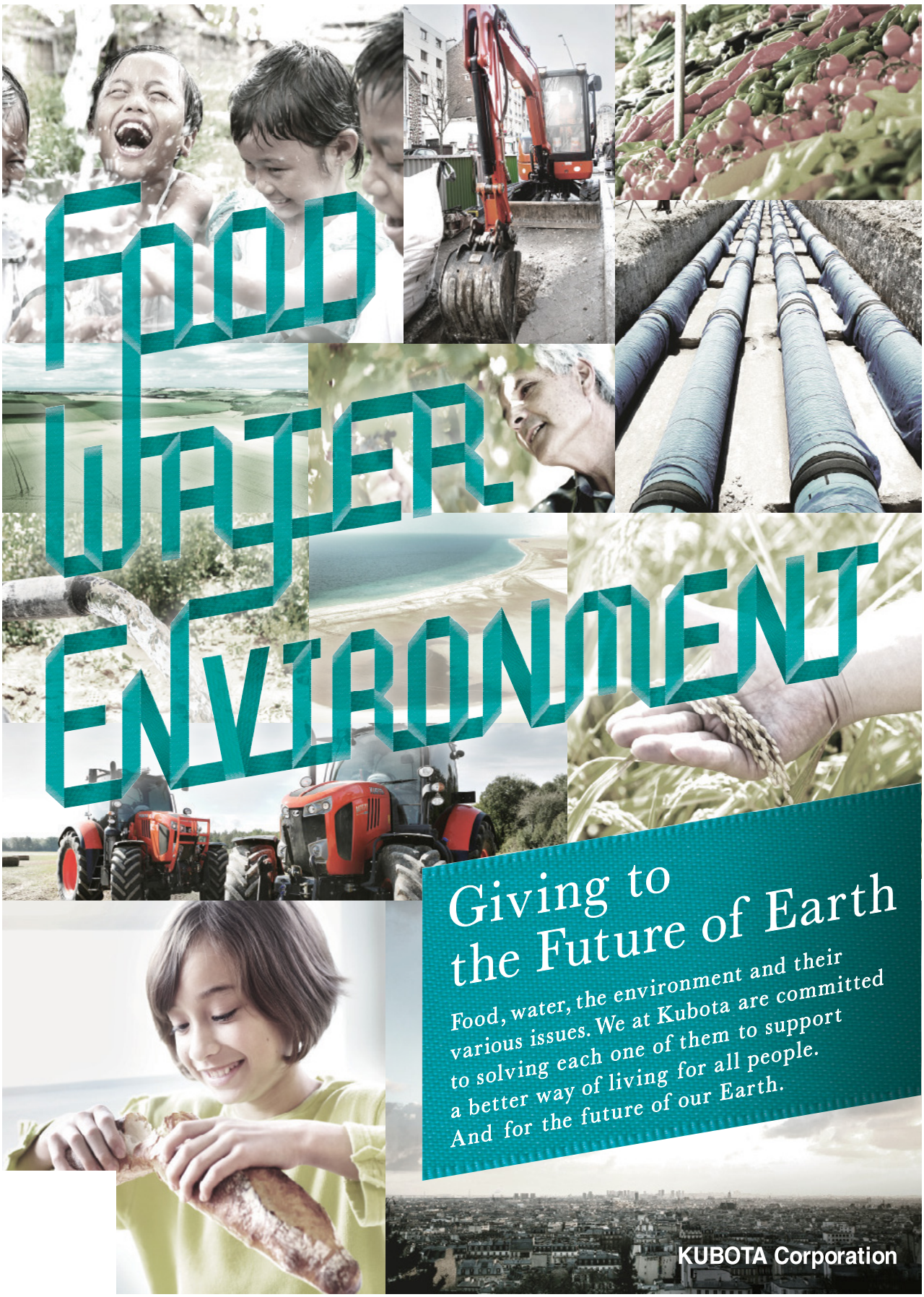
Kubota



Giving to the Future of Earth

Food, water, the environment and their various issues. We at Kubota are committed to solving each one of them to support a better way of living for all people. And for the future of our Earth.

KUBOTA Corporation