

WATER CONVENTION PROGRAMME SUMMARY

(Updated as of 6 July 2018 – For the latest programme, please access SIWW website at <https://www.siww.com.sg/events/details/water-convention>)

8 July 2018, Sunday

Time	Description	Venue
9.00 AM – 12.30PM	Water Convention Hot Issues Workshops (Morning Session) 1. Year 2030 – Intelligent Water Networks 2. Strengthening Delivery of WaSH to Urban Informal Settlements in the Asia Pacific 3. Emerging Contaminants-Real Concern or #FakeNews?	Begonia 3101AB Cassia JR 3311 Begonia 3001AB
2.00 PM – 5.30PM	Water Convention Hot Issues Workshops (Afternoon Session) 1. Potable Reuse - A Safe, Sustainable and Mainstream Solution (programme starts at 1.30 PM) 2. Coping With Extreme Events - Getting Real About the Inevitable	Begonia 3001AB Cassia JR 3311
9.00 AM – 5.30 PM	Water Convention Hot Issues Workshops (Whole Day Session) 1. Pre-treatment for Anaerobic Digestion, Which Technology?	Cassia JR 3211

9 July 2018, Monday

Time	Description	Venue
9.30 AM	Opening Address for Singapore International Water Week – World Cities Summit – CleanEnviro Summit Singapore	Level 5, Ballroom L-M
9.45 AM	Keynote Address by Hon. Ranil Wickremesinghe, Prime Minister, Sri Lanka	Level 5, Ballroom L-M
10.15 AM	Keynote Address by HE Luhut Pandjaitan, Coordinating Minister for Maritime Affairs, Indonesia	Level 5, Ballroom L-M
10.35 AM	Opening Plenary on “Urban Solutions for a Liveable and Sustainable Future”	Level 5, Ballroom L-M
12.00 PM	Expo Activities and Guided Tour followed by Lunch	Basement 2, Level 1 and Level 5
1.30 PM	Lee Kuan Yew World City Prize and Water Prize Lectures	Level 5, Ballroom J
3.00 PM	Tea break	Level 3, Foyer
3.30 PM	Water Convention Poster Presentation	Level 3, Foyer

10 July 2018, Tuesday

Time	Description	Venue
9.00 AM	SIWW Water Dialogue	Level 5, Ballroom B-G
9.50 AM	Water Convention Keynote Plenary	Level 5, Ballroom B-G
11.05 AM	Tea break	Level 3, Foyer
11.30 AM – 5.30PM	Water Convention Technical Sessions (6 Parallel Tracks)	Level 3, Multiple Rooms

11 July 2018, Wednesday

Time	Description	Venue
9.00 AM – 3.30 PM	Water Convention Technical Sessions (6 Parallel Tracks) – continued	Level 3, Multiple Rooms
4.00 PM – 5.30 PM	Water Convention Closing Plenary and Best Poster Winners Award Ceremony	Level 3, Begonia 3002

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Begonia 3101AB, Level 3

Theme 1A: Year 2030-Intelligent Water Networks	
Moderator:	Dr David Garman, Chief Technology Consultant, The Water Council, USA
Time	Description
9.00 AM	Welcome and Introduction ▪ Dr David Garman, Chief Technology Consultant, The Water Council, USA
9.05 AM	Towards an Intelligent Water Network ▪ Mr Ridzuan Ismail, Director of Water Supply (Network), PUB, Singapore
9.20 AM	Intelligent Water Network, South Australia’s Case ▪ Mr Roch Cheroux, Chief Executive Officer, SA Water, Australia
9.40 AM	Leveraging IoT Networks for Effective Resource Management ▪ Mr Jean-Paul Piques, Marketing Vice President, Itron Inc., France
10.00 AM	Q&A
10.30 AM	Tea Break
11.00 AM	Intelligent Water Networks and the Utility Operating System of the Future ▪ Mr Albert Cho, Vice President, Xylem Inc., Canada
11.15 AM	Water 4.0 – How to Apply Industries 4.0 Concepts to the Water Sector ▪ Dr Andreas Hauser, Director Digital Service, TÜV SÜD Asia Pacific Pte. Ltd, Singapore
11.30 AM	Panel Discussion – Roadmap to an Intelligent Water Network ▪ Dr David Garman, Chief Technology Consultant, The Water Council, USA ▪ Mr Ridzuan Ismail, Director of Water Supply (Network), PUB, Singapore ▪ Mr Roch Cheroux, Chief Executive Officer, SA Water, Australia ▪ Mr Jean-Paul Piques, Marketing Vice-President, Itron Inc, France ▪ Mr Albert Cho, Vice President, Xylem Inc., Canada ▪ Dr Andreas Hauser, Director Digital Service, TÜV SÜD Asia Pacific Pte. Ltd, Singapore

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Cassia JR 3311, Level 3

Theme 3A: Strengthening Delivery of WaSH to Urban Informal Settlements in the Asia Pacific	
Moderator:	Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia
Time	Description
9.00 AM	Welcome and Introduction <ul style="list-style-type: none"> Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia
9.10 AM	WaSH in the Context of Rapid Urbanisation: the Rationale for a New Approach <ul style="list-style-type: none"> Prof Tony Wong, Chief Executive, Cooperative Research Centre for Water Sensitive Cities, Australia
9.20 AM	Provision of WaSH Services in Makassar, Indonesia <ul style="list-style-type: none"> dr. Andi Hadijah Iriani, Sp. THT-KL, Head of Regional Development Planning Agency (Bappeda), Makassar City Government
9.30 AM	Challenges for Informal Settlements in Makassar, Indonesia <ul style="list-style-type: none"> Ms Jane Wardani, RISE Programme Coordinator, Indonesia
9.40 AM	Delivering Water Services in Informal Settlements in Fiji <ul style="list-style-type: none"> Ms Mere Naulumatua, RISE Program Fiji
9.50 AM	Introduction to the RISE Programme <ul style="list-style-type: none"> Ms Kerrie Burge, International Engagement Manager, Cooperative Research Centre for Water Sensitive Cities, Australia
10.05 AM	Q&A
10.30 AM	Tea Break
11.00 AM	Tabletop Workshop - Exploring Adoption Pathways In anticipation of evidence of statistical significant improvement in population health and wellbeing derived from the RISE Programme, the second part of the workshop is directed at exploring adoption pathways for the proposed holistic approach to the revitalisation of informal settlements. Facilitated small group discussions will explore adoption pathways at the community, government and multi-lateral agencies levels. <ul style="list-style-type: none"> at the community level, we will explore the effectiveness of a community co-design process in building knowledge and capacity for co-construction, operation and maintenance of the WaSH interventions; at the government and institutional level, we will explore enabling policies in planning, and alternative governance models for addressing land tenure and community titles; at the multi-lateral aid agencies level, we will explore new and collaborative practice in design and procurement packaging of integrated and place-based WaSH solutions.
11.45 AM	Feedback and Panel Discussion <ul style="list-style-type: none"> Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia Dr. Andi Hadijah Iriani, Sp. THT-KL, Head of Regional Development Planning Agency (Bappeda), Makassar City Government Ms Jane Wardani, RISE Program Coordinator, Indonesia Ms Mere Naulumatua, RISE Program Fiji Ms Kerrie Burge, International Engagement Manager, Cooperative Research Centre for Water Sensitive Cities, Australia Prof Tony Wong, Chief Executive, Cooperative Research Centre for Water Sensitive Cities, Australia
12.15 AM	Conclusion

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Begonia 3001AB, Level 3

Theme 4: Emerging Contaminants-Real Concern or #FakeNews?	
Moderator:	Dr Robert Bos, Independent Consultant, Water, Sanitation, Environment and Public Health, Switzerland
Time	Description
9.00 AM	Welcome and Introduction <ul style="list-style-type: none"> Dr Robert Bos, Independent Consultant, Switzerland
9.05 AM	Emerging Concerns and Public Health Responses: Lessons Learned and New Challenges <ul style="list-style-type: none"> Dr David Cunliffe, Principal Water Quality Adviser, SA Health, Australia
	Session on Emerging Chemical Pollutants Moderator: Prof Ong Choon Nam , Director, NUS Environmental Research Institute, Singapore
9.25 AM	Natural and Synthetic Emerging Pollutants: Some Examples from Italy <ul style="list-style-type: none"> Dr Emanuela Testai, Research Director, Istituto Superiore di Sanità, Italy
9.40 AM	Rhine Case Study – Challenging Micro-contaminants <ul style="list-style-type: none"> Mr Jonathan Clement, the Netherlands
9.55 AM	Emerging Contaminants-A Question of Balance <ul style="list-style-type: none"> Prof John Fawell, Visiting Professor, Water Science Institute, Cranfield University, UK
10.10 AM	Panel Discussion on Emerging Chemical Contaminants <ul style="list-style-type: none"> Prof Shane Snyder, Executive Director, Nanyang Environment and Water Research Institute, Nanyang Technological University, Singapore Ms Jennifer De France, Technical Officer, World Health Organization, Switzerland Prof Frederic Leusch, Deputy Head, School of Environment and Science, Griffith University, Australia
10.30 AM	Tea Break
	Session on Emerging Pathways for Microbial Contaminants Moderator: Dr Indra Chakravarty , Chief Advisor, Water & Sanitation Support Organization, Public Health Engineering Department, Government of West Bengal, India
11.00 AM	The Dutch Approach to Emerging Chemical Pollutants and Emerging Pathways for Microbial Contaminants <ul style="list-style-type: none"> Prof Annemarie van Wezel, Principal Scientist, KWR Watercycle Research Institute, the Netherlands
11.15 AM	The Havelock North Case in New Zealand: of Aquifers, Livestock and Extreme Weather <ul style="list-style-type: none"> Dr Marion Savill, Executive Director, Affordable Water Ltd, New Zealand
11.25 AM	Panel Discussion on Emerging Pathways for Microbial Contaminants <ul style="list-style-type: none"> Dr Sasha Koo-Oshima, Senior International Water Advisor, U.S Environment Protection Agency, United States Prof Francisco Arellano, Senior Technical Consultant, Maynilad Water Services, Inc., the Philippines Dr Pranav Joshi, Senior Assistant Director, Drinking Water Unit, National Environment Agency Singapore, Singapore
	Session on Antimicrobial Resistance Moderator: Mr Bruce Gordon , Coordinator Of Water, Sanitation, Hygiene And Health, World Health Organization, Switzerland
11.45 AM	Inducement of Antimicrobial Resistance (AMR) in the Aquatic Environment and Approaches to Prevent it <ul style="list-style-type: none"> Prof Karina Gin Yew-Hoong, Associate Professor, National University of Singapore, Singapore
12.00 PM	Shared Antibiotic Resistome Identified by Metagenomics of Urban Sewage in China <ul style="list-style-type: none"> Dr Tong Zhang, Professor, The University of Hong Kong, Hong Kong SAR, Hong Kong-China
12.10 PM	Panel Discussion on Antimicrobial Resistance <ul style="list-style-type: none"> Dr Astrid Louise Wester, Water and Sanitation Unit, WHO, Switzerland Dr Laurence Haller, Research Fellow, National University of Singapore, Singapore Prof Joan Rose, Professor, Michigan State University, USA

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Begonia 3001AB, Level 3

Theme 1B: Potable Reuse - A Safe, Sustainable and Mainstream Solution

Moderators:	Prof Ian Law, Chief Executive Officer, IBL Solutions, Australia Ms Melissa Meeker, Director, Water Innovation Center, USA
Time	Description
1.30 PM	Session One Introduction: Monitoring for Safety in a One-Water World? ▪ Prof Ian Law, Chief Executive Officer, IBL Solutions, Australia
1.35 PM	Potable Reuse-the Singapore Vision ▪ Mr Harry Seah, Assistant Chief Executive (Future Systems & Technology), PUB, Singapore
1.45 PM	Setting Reasonable Health Based Targets for Potable Reuse: Just Another Source of Drinking Water ▪ Dr David Cunliffe, Principal Water Quality Advisor, SA Health, Australia
1.55 PM	Treatment Technologies-We've Got It All Covered ▪ Mr Jonathan Clement, the Netherlands
2.05 PM	Enhancement in Microbial Monitoring-Online DNA Profiling ▪ Prof Joan Rose, Professor, Michigan State University, USA
2.15 PM	Developments in Bioanalytical Tools – When Will We Have On-Line Sensors? ▪ Prof Frederic Leusch, Deputy Head, School of Environment and Science, Griffith University, Australia
2.25 PM	Panel Discussion ▪ Prof Ian Law, Chief Executive Officer, IBL Solutions, Australia ▪ Mr Harry Seah, Assistant Chief Executive (Future Systems & Technology), PUB, Singapore ▪ Dr David Cunliffe, Principal Water Quality Advisor, SA Health, Australia ▪ Mr Jonathan Clement, the Netherlands ▪ Prof Frederic Leusch, Deputy Head, School of Environment and Science, Griffith University, Australia ▪ Prof Joan Rose, Professor, Michigan State University, USA
2.45 PM	Session Two Introduction: Breaking the Mould and Changing the Mindset on Potable Reuse ▪ Prof Ian Law, Chief Executive Officer, IBL Solutions, Australia
2.55 PM	Changing the Conversation with the Pure Water Brew Challenge to Create a Mindset Shift ▪ Ms Diane Taniguchi-Dennis, Deputy General Manager, Clean Water Services, USA
3.30 PM	Tea Break
4.00 PM	Creating a New Paradigm for Public Perception in the Quest for Clean Water ▪ Prof Paul Slovic, Professor, University of Oregon, USA
4.15 PM	One WATER Engagement Tools ▪ Ms Melissa Meeker, Director, Water Innovation Center, USA
4.30 PM	The Last Call ▪ Mr Sean McLin, Managing Director, Brewerkz, Singapore
4.45 PM	Panel Discussion ▪ Prof Ian Law, Chief Executive Officer, IBL Solutions, Australia ▪ Prof Paul Slovic, Professor, University of Oregon, USA ▪ Ms Diane Taniguchi-Dennis, Deputy General Manager, Clean Water Services, USA ▪ Ms Melissa Meeker, Director, Water Innovation Centre, USA ▪ Mr Sean McLin, Managing Director, Brewerkz, Singapore ▪ Ms Jennifer De France, Technical Officer, World Health Organization, Switzerland
5.15 PM	Continuing the Conversation Over Beer

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Cassia JR 3311, Level 3

Theme 3B: Coping with Extreme Events - Getting Real About the Inevitable

Moderator:	Dr Mark Fletcher, Director, Arup, UK
Time	Description
2.00 PM	Welcome and Introduction ▪ Dr Mark Fletcher, Director, Arup, UK
2.10 PM	Expect to be Surprised ▪ Mr Paul Brown, President, Paul Redvers Brown Inc., USA
2.30 PM	The Irrationalities of Extreme Events ▪ Dr Olivia Jensen, Senior Research Fellow, Institute of Water Policy, Lee Kuan Yew School of Public Policy, Singapore
2.50 PM	Preparedness for Design Exceedance, a UK Perspective ▪ Mr Craig Woolhouse, Deputy Director, Environment Agency, UK
3.00 PM	Coping with Flooding in Bangladesh ▪ Dr Rinus Vis, Director Singapore Operations, Deltares, Singapore & the Netherlands
3.10 PM	Design Exceedance in the Philippines How to Cope in Extreme Events and What are the Issues When Defences Fail; or are Overtopped ▪ Prof Francisco Arellano, Senior Technical Consultant, Maynilad Water Services, Inc., the Philippines
3.20 PM	Framing the Tabletop Workshop ▪ Dr Mark Fletcher, Director, Arup, UK
3.30 PM	Tea Break
4.00 PM	Tabletop Workshop ▪ Dr Mark Fletcher, Director, Arup, UK ▪ Mr Michael Dobson, Associate, Arup, UK ▪ Mr Craig Woolhouse, Deputy Director, Environment Agency, UK

WATER CONVENTION HOT ISSUES WORKSHOP

8 July 2018, Sunday

Cassia JR 3211, Level 3

Theme 2: Pre-treatment for Anaerobic Digestion, Which Technology?

Moderator:	Mr Pascal Dauthuille, Director, Partnerships and Collaborative Projects, SUEZ, France
Time	Description
9.00 AM	Review of Technologies, Market analysis, Disruptive Forces and Commercial Future of Thermal and Alkaline Hydrolysis <ul style="list-style-type: none"> Dr Sudhir Murthy, Chief Executive Officer, NEWhub, USA
9.15 AM	Survey of Water Utilities and Drivers for Thermal Hydrolysis <ul style="list-style-type: none"> Mr Jeff Moeller, Director of Water Technologies, LIFT Program, WRF, USA
9.30 AM	Using Thermal Hydrolysis to Optimize Treatment of Sewage Sludge <ul style="list-style-type: none"> Dr Bill Barber, Technical Director, Cambi, Inc., USA
9.45 AM	Veolia's Experiences on Enhanced Sludge Digestion Pre-treatment Maximizing Waste to Energy <ul style="list-style-type: none"> Dr Chen Xiaohua, Chief Engineer, Veolia Water Technologies, China
10.00 AM	TurboTec®--Proven Continuous Thermal Hydrolysis <ul style="list-style-type: none"> Mr Joost Edens, Area Sales Manager, DMT Water Technology, the Netherlands
10.15 AM	Cooling of THP Sludge: How to Make Energy Recovery Possible with New Flash Cooler <ul style="list-style-type: none"> Dr Troels Hilstrøm, R&D Director, Haarslev Industries A/S, Denmark
10.30 AM	Tea Break
11.00 AM	Thermal Conditioning: Back to the Future <ul style="list-style-type: none"> Mr Eric Judenne, Product Portfolio Director, SUEZ, France
11.15 AM	Advanced Anaerobic Digestion Project in Changsha - Design, Construction, Commissioning and Operation <ul style="list-style-type: none"> Dr Xue Yonggang, Shanghai Tongji Plant Biomass Energy Co., Ltd. China
11.30 AM	Panel Discussion <ul style="list-style-type: none"> Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France Dr Sudhir Murthy, Chief Executive Officer, NEWhub, USA Mr Jeff Moeller, Director of Water Technologies, LIFT Program, WRF Mr Eric Judenne, Product Portfolio Director, SUEZ, France Dr Xue Yonggang, Shanghai Tongji Plant Biomass Energy Co., Ltd. China
12.30 PM	Lunch
2.00 PM	PONDUS Thermochemical Hydrolysis (TCHP) for Improving Biogas Production, Digested Sludge Dewaterability and Energy Balance of Solids Handling Processes <ul style="list-style-type: none"> Mr Gerhard Forstner, President, CNP-Technology Water and Biosolids Corporation, USA
2.15 PM	The Beneficial Use of Cellular Protein Extracted from Excess Sludge – Thermal Alkali Hydrolysis of Sludge and its Resource Utilization <ul style="list-style-type: none"> Mr Jianguo Wang, Tianjin Yuchun Microbial Products Co. Ltd, China
2.30 PM	A Tale of Two Systems: 2-Pad and 6-Pack, Two Efficient Methods to Apply Biological Hydrolysis <ul style="list-style-type: none"> Mr Dorian Harrison, SUEZ
2.45 PM	Pre-treatment of Waste Activated Sludge Using Free Nitrous Acid to Improve Biogas Production and Enhance Digester Capacity <ul style="list-style-type: none"> Prof Jurg Keller, Deputy Director Research, Advanced Water Management Centre, The University of Queensland, Australia
3.00 PM	Electron Beam (eBeam) as a Disruptive Technology for the Pre-treatment for Anaerobic Digestion <ul style="list-style-type: none"> Dr Suresh Pillai, National Center for Electron Beam Research, Texas A&M University, USA
3.15 PM	Panel Discussion <ul style="list-style-type: none"> Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France Mr Gerhard Forstner, President, CNP-Technology Water and Biosolids Corporation, USA Mr Jianguo Wang, Tianjin Yuchun Microbial Products Co. Ltd, China Dorian Harrison, SUEZ, France Prof Jurg Keller, Deputy Director Research, Advanced Water Management Centre, The University of Queensland, Australia Dr Suresh Pillai, National Center for Electron Beam Research, Texas A&M University, USA
3.30 PM	Tea Break

4.00 PM	Optimizing THP - 2nd Generation THP and Techno-economical Model for Full Scale Implementation from Thames Water <ul style="list-style-type: none"> Ms Ester Rus, Principal Research Engineer, Thames Water, UK
4.15 PM	Panel Discussion <ul style="list-style-type: none"> Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France Ms Ester Rus, Principal Research Engineer, Thames Water, UK Dr Sudhir Murthy, Chief Executive Officer, NEWhub, USA Dr Winson Lay, General Manager, PUB, Singapore Ms An Lin, Senior Engineer, Beijing Drainage Group, China
5.15 PM	Concluding Remark <ul style="list-style-type: none"> Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France

WATER CONVENTION E-VOTING FOR BEST POSTER WINNERS

9 July 2018, Monday (3.30 PM) to 10 July 2018, Tuesday (4.00 PM)

How to Vote

Go to <https://www.pigeonhole.at/> or scan the QR Code below:



Enter Event Passcode:
SIWW2018

WATER CONVENTION KEYNOTE PLENARY

10 July 2018, Tuesday

Level 5, Ballroom B-G

Water Convention Keynote Plenary

Moderator:	Mr Darryl Day, Managing Director, International Centre of Excellence in Water Resources Management (ICE WaRM)
Time	Description
9.50 AM	Sustainable Development Goals <ul style="list-style-type: none"> Prof Kalanithy Vairavamoorthy, Executive Director, International Water Association (IWA)
10.15 AM	How Best to Capture Used Water's Resources – Where and Why? <ul style="list-style-type: none"> Prof Perry McCarty, Emeritus Professor, Civil and Environmental Engineering, Stanford University
10.40 AM	VIRUSES – An Old, Continuing and New Risk <ul style="list-style-type: none"> Prof Joan Rose, Professor, Homer Nowlin Chair in Water Research, Michigan State University
11.05 AM	END of session

TIME (HRS)	Theme 1: Delivering Water From Source to Tap		Theme 2: Effective And Efficient Wastewater Value Management		Theme 3: Water For Liveability And Resilience	Theme 4: Water Quality & Health
	(A) Network <i>CASSIA 3203, LEVEL 3</i>	(B) Treatment <i>CASSIA 3201AB, LEVEL 3</i>	(A) <i>CASSIA 3301AB, LEVEL 3</i>	(B) <i>CASSIA 3303, LEVEL 3</i>	<i>CASSIA JR 3211, LEVEL 3</i>	<i>CASSIA JR 3311, LEVEL 3</i>
11.30 AM	<p>[1A.1] Network of The Future Chairs: Hamanth Kasan, Rand Water (South Africa);</p> <p>11.30 AM: Planning for the Future Water Network – K. Vairavamoorthy, International Water Association (the Netherlands)</p> <p>11.45 AM: Transition from Intermittent to Continuous Water Supply – D. Duccini, A. Mokssit. Suez (France)</p> <p>12.00 PM: Smart Water Network for Water Quality Optimisation – G. Booth, J. Cooper. Arcadis (UK)</p> <p>12.15 PM: Earthquake Resilient: Keeping Water Flowing to 400,000 People Following a Major Earthquake in Wellington – A. Cameron, M. Kinvig. Cardno (New Zealand)</p>	<p>[1B.1] Hybrid Advanced Oxidation Process Chairs: Shane Snyder, NEWRI (Singapore);</p> <p>11.30 AM: Study the Efficacy of UV AOPs to Improve Resilience of NEWater Treatment Processes – J. Scheideler, H. Stapel, A. Ried, M. Tan, Y. Zhang, E. Wong, P. C. Siow, E. Huang, P. W. Chue, K. Chua, F. K. Chwee, B. Viswanath, R. Hu, L. Zhang, Y. H. Leong, A. K. Puah, M. H. Lim. Xylem Services GmbH (Germany)</p> <p>11.45 AM: Effect of Membrane Pore Size and Material on Catalytic Reaction in Hybrid System of Ozone/Ceramic Microfiltration – M. He, J. Hu. National University of Singapore (Singapore)</p> <p>12.00 PM: Alternative Treatment Strategy with Ceramic Membrane for Wastewater Reuse – R. Floris, S. Gabriel, J. Zheng, G. Galjaard. PWNT (the Netherlands)</p> <p>12.15 PM: Safe and Sustainable Reuse in New Mexico (USA) Through Ozone-Based AOP – J. Scheideler. Xylem Services GmbH (Germany)</p>	<p>[2A.1] Membrane-based Wastewater Treatment Chairs: Pascal Dauthuille, SUEZ (France); Ng How Yong, NUS (Singapore)</p> <p>11.30 AM: Commissioning and Demonstration Study of Low Energy Step-feed Membrane Bioreactor for Water and Resource Recovery – G. Tao, J.T. Yen, J. Li, C. Htoo, A. M. Ang, S.C. Chua, Y. L. Wah, K. E. Ooi, H. Seah. PUB (Singapore)</p> <p>11.45 AM: Reusable Water and Biogas from A Sustainable Mainstream Anaerobic Treatment of Municipal Wastewaters – P. Dauthuille, L. Rodríguez-Hernández, A. Silva-Teira, T. Reyes, C. Lardín, N. Moya, J. Garrido. Suez (France)</p> <p>12.00 PM: Advanced and Efficient MBR Integration of Two Giant WWTP in the Megacities of Beijing and Paris: The Huai Fang and Achères Projects – S. Donnaz, C. Roche, P. Luchon, Y. Yang, M. A. Sanz. Suez International Treatment Infrastructure (France)</p> <p>12.15 PM: Algal Versus Conventional Wastewater Treatment: Comparison of Microbial Communities – H. M. Delanka-Pedige, N. N. Khandan, S. P. Munasinghe-Arachchige, Y. Zhang. New Mexico State University (USA)</p>	<p>[2B.1] Flood, Drainage & Sewer Management Chairs: Adel Hagekhalil, Bureau of Sanitation, City of Los Angeles (USA); Stéphanie Rinck-Pfeiffer, Global Water Research Coalition (Australia)</p> <p>11.30 AM: Taming Stormwater – Now and into the Future – M. Ong, PUB (Singapore)</p> <p>11.50 AM: Improving Flood Management in Metro Manila – J. Stoutjesdijk. World Bank (USA)</p> <p>12.10 PM: Interceptor and River Water Treatment for the River of Life, Kuala Lumpur, Malaysia – P. Von Huben, S. Chan. Jacobs (Australia)</p>	<p>[3.1] Sustainable Development Goals Chairs: Leong Ching, Institute of Water Policy, LKYSPP, NUS (Singapore); Bert Palsma, Stowa - Foundation for Applied Water Research (the Netherlands)</p> <p>11.30 AM: Moral Dimensions of Resilience in Integrated Urban Systems – P. Brown, S. Trussell. Paul Redvers Brown Inc. (USA)</p> <p>11.45 AM: Water-Food Security Resilience for Southeast Asia: Climate Change Alarms for Extremes? – S. Y. Liong, Z. Jiang, J. Hur, S. Raghavan. TMSI, National University of Singapore (Singapore)</p> <p>12.00 PM: Water's Essential Role in Achieving the Sustainable Development Goals – L. Werbeloff, B. Rogers, C. Chesterfield, J. Ewert. Monash University (Australia)</p> <p>12.15 PM: Playing Our Part to Achieve the SDGs – C. Flew, T. Muller, R. Wheen. WaterAid (Cambodia)</p>	<p>[4.1] Policy and Regulatory Framework for Drinking Water Quality Chairs: Indira Chakravarty, Government of West Bengal (India); Annemarie van Wezel, KWR Watercycle Research Institute (the Netherlands)</p> <p>11.30 AM: Policy and Regulation across the 6 SDG6 Targets – R. Bos, Water, Sanitation, Environment and Public Health (Switzerland)</p> <p>11.45 AM: Regulatory Policies in Monitoring Emerging Contaminants and Antimicrobial Resistance – S. Koo-Oshima. U.S. EPA (United States)</p> <p>11.58 AM: Improving Drinking Water Safety in Regional New South Wales, Australia – L. Jarvis, S. Leask, W. Henderson, T. Carr, J. Tickell, K. Wall, Z. Bradford-Hartke, P. Byleveld. NSW Health (Australia)</p> <p>12.10 PM: Influence of Land Development on Variability of Fecal Indicator Bacteria and Total Suspended Solids Concentration in Stormwater Runoff in Mixed Land Use and Land Cover Catchment – M. C. Paule-Mercado. Myongji University (Korea)</p> <p>12.23 PM: A Comprehensive Assessment of Level of Service Based on Risk – F. Cubillo. Canal de Isabel II (Spain)</p>
1.00 PM	LUNCH @ LEVEL 3					
2.00 PM	<p>[1A.2] Smart Network Chairs: Darryl Day, International Centre of Excellence in Water Resources Management (Australia); Albert Cho, Xylem Inc (Canada)</p> <p>2.00 PM: Intelligent Water Network – South Australia's Case – R. Cheroux. SA Water (Australia)</p> <p>2.15 PM: Smart Water Network and Future Plan – T. W. Kok. PUB (Singapore)</p> <p>2.30 PM: Strategic Cleaning Solution for Water Networks – D. Duccini, D. Sinapah, T. VanBecelaere. Suez (France)</p> <p>2.45 PM: Ensuring Stable Water Supply by Centralized Administrative Control Over a Large-scale Water Supply Network – H. Taniguchi. Bureau of Waterworks, Tokyo Metropolitan Government (Japan)</p>	<p>[1B.2] Natural Organic Matter Chairs: Gary Amy, NUS; Clemson University (Singapore; USA); Rob Renner, Water Research Foundation, USA</p> <p>2.00 PM: Influence of NOM on Post-Filtration Treatment – H. Shorney-Darby, I. Caltran. PWNT (the Netherlands)</p> <p>2.15 PM: Characteristics of The Specific UV Absorbance at 254 Nm (SAC(254)) and Selected Applications Related to Water Treatment And Safety – A. Rodenberg. SWAN Analytical Instruments AG (China)</p> <p>2.30 PM: The Use of Membrane Technology for NOM Removal in Scotland – S. Sutherland. Scottish Water (UK)</p> <p>2.45 PM: Innovative Approach to Preventing RO Fouling Caused by Humic</p>	<p>[2A.2] Membrane Biofilm Reactor Chairs: Andrew Shaw, Black & Veatch (USA); David Jenkins, University of California, Berkeley (USA)</p> <p>2.00 PM: Leveraging MABR Technology for Short-cut Nitrogen Applications: Demonstration Testing at the Ejby Mølle WWTP – T. Constantine, P. H. Nielsen, N. Uri, J. Sandino, A. Willoughby. Jacobs (Canada)</p> <p>2.15 PM: MABR Goes Full-Scale: Design & Implementation of The World's Two Largest MABR Plants – J. Peeters, M. Di Pofi, D. Houweling, J. Ireland, C. Owerdieck. SUEZ Water & Solutions (Canada)</p> <p>2.30 PM: Anaerobic MBR for Self-sufficient Sewer Mining and Water Reuse – F. Rogalla, Aqualia (Spain)</p>	<p>[2B.2] Deep Tunnel System Chairs: David Rager, American Water Works Association (USA); Glen Daigger, IWA; ASCE; WEF; University of Michigan (USA)</p> <p>2.00 PM: Effective and Efficient Used Water Management System – W. H. Yong. PUB (Singapore)</p> <p>2.15 PM: Singapore Deep Tunnel Sewerage System Phase 2 – D. Brocard, Black & Veatch AECOM Joint Venture (Singapore)</p> <p>2.30 PM: Operational Experiences of the MWRD Chicago TARP System – T. Kunez. Metropolitan Water Reclamation District of Greater Chicago (USA)</p>	<p>[3.2] Regenerative Water Services Chairs: Paul Reiter, Reiter International Water Solutions Ltd (Hong Kong); Ryan Yuen, BNL Engineering (S) Pte Ltd</p> <p>2.00 PM: Applying Adaptation Pathways and Robust Decision Making in Strategic Planning of Critical Water Systems in the Face of Change and Uncertainty – P. H. von Lany, B. Korteling. Jacobs (UK)</p> <p>2.20 PM: Enhancing Liveability in the Dutch Delta by Combining Highway Developments with A Blue Green Corridor and Advanced Wastewater Reuse, A Success Story – J. Boorsma, O. Helsen, A. Spanjers. Delfland Regional Water Authority (the Netherlands)</p> <p>2.40 PM: Toward Best Practices for Increasing Public Understanding of Water Reuse – M. Meeker, L. Macpherson, I.</p>	<p>[4.2] Protection, Monitoring and Evaluation of Source Water Quality Chairs: Robert Bos, (Switzerland); Laurence Haller, NUS (Singapore)</p> <p>2.00 PM: Assessing Source Water Quality – M. Savill. Affordable Water Ltd (New Zealand)</p> <p>2.20 PM: Simulated Pathogen Survival in Open Canals Under Changing Flow Conditions in Singapore – N. Shome, S. Wuertz. NTU (Singapore)</p> <p>2.30 PM: Disinfection of Drainage Pumps as Unconventional Point Sources of Contamination for Bathing Waters – A. Carducci, I. Federigi, A. Landucci, G. Donzelli, R. Iannelli, C. Pretti, F. Tardelli, V. Casu, M. Verani. University of Pisa (Italy)</p>

TIME (HRS)	Theme 1: Delivering Water From Source to Tap		Theme 2: Effective And Efficient Wastewater Value Management		Theme 3: Water For Liveability And Resilience	Theme 4: Water Quality & Health
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		Substances – K. Imai , C. Shimpo. Kurita Water Industries (Japan)	2.45 PM: Membrane Biofilm Reactor (MBfR) – J. Keller , CRC for Water Sensitive Cities (Australia)	2.45 PM: Sewerage Tunnel Inspection Using Drone – F. Wang , AeroLion Technologies Pte Ltd (Singapore)	Law, J. Minton. Water Innovation Center, Gwinnett (USA)	2.40 PM: Monitoring Water Quality in Singapore Reservoirs with Hyperspectral Remote Sensing Technology – S. C. Liew , C. K. Choo, T. C. Dang. NUS (Singapore) 2.50 PM: Ecological System Analysis: An Integral Approach for Sustainable Water Quality Management – G. Kruitwagen , S. H. Wee. Witteveen+Bos Consulting Engineers (the Netherlands)
3.30 PM	TEA BREAK @ LEVEL 3 FOYER					
4.00 PM	<p>[1A.3] Network Condition Assessment Chairs: Wong Meng Kin, PUB (Singapore); Martin Lambert, University of Adelaide (Australia)</p> <p>4.00 PM: New Approaches to Pipe Condition Assessment Using Pressure Transients – M. Lambert, University of Adelaide (Australia)</p> <p>4.15 PM: Water Network Renewal in Singapore: A Risk Based Approach – G. Booth, T. Qiu. Arcadis (UK)</p> <p>4.30 PM: How Much Data Is Enough? Financial Optimization of Condition Assessment Spending to Support Pipeline Replacement Decisions – K. Laven, F. Boyle, R. Diemel, P. Murray. Echologics (Canada)</p> <p>4.45 PM: Identifying Explanatory Variables of Failures for Asset Lifetime Models Construction – F. Cubillo, P. Gómez-Martínez. Canal de Isabel II (Spain)</p>	<p>[1B.3] Treatment of Emerging Contaminants Chairs: Jonathan Clement, the Netherlands; Vernon Snoeyink, University of Illinois (USA)</p> <p>4.00 PM: Delivering Water from Source to Tap: Engineered Nanomaterials – Unregulated Compounds of Concern? – I. Law. IBL Solutions (Australia)</p> <p>4.15 PM: Advanced Oxidation for Control of Micropollutant from Rhine River, North Holland – B. Martijn. PWNT (the Netherlands)</p> <p>4.30 PM: Status Quo of Micropollutant Removal in Central Europe – A. Ried, L. Dinkloh, T. Puehmeier, A. Wieland, H. Stapel. Xylem Services GmbH (Germany)</p> <p>4.45 PM: An Approach for Extraction, Digestion and Rapid – Screening of Microplastics in Fresh Water Environmental Samples Based on Fluorescent Tagging – P. Chen, H. Liu, J. Li, E. M. de Souza, J. Wu, J. Lim. National University of Singapore (Singapore)</p>	<p>[2A.3] Shortcut Biological Nutrient Removal Chairs: Sudhir Murthy, NEWhub (USA); Andrew Williams, Clay Township Regional Waste District (USA)</p> <p>4.00 PM: High-rate C capture, aerobic granulation, deammofication and the application of physical selectors – B. Wett, AraConsunt (Austria)</p> <p>4.15 PM: A Pilot-scale Membrane Bioreactor Plant Incorporating Mainstream Nitrification-denitrification Process for Municipal Used Water Reclamation – H. Wang, G. Xu, Z. Qiu, Y. Zhou, H. Png, W. Lay, B. Kwok, Y. Liu. NTU (Singapore)</p> <p>4.30 PM: Achieving Long-term and Stable Mainstream Nitrification for Municipal Wastewater: A Sustainable NOB Repression for Shortcut Nitrogen Removal and Mainstream – M. Caligaris, I. Mozo, T. Saur, G. Gaval, B. Barillon. SUEZ (France)</p> <p>4.45 PM: Taking Mainstream Deammonification out of the Box and into Practice - Sustainable Water Reuse Using an Anammox Biofilter – S. Sathyamoorthy, H. Park. Black & Veatch (USA)</p>	<p>[2B.3] Sensors for Smart Wastewater Management Chairs: Wah Yuen Long, PUB (Singapore); Frank Rogalla, FCC Aqualia (Spain)</p> <p>4.00 PM: Identification and Management of Industrial Wastewater Emissions by Smart Sensing and Real-time Communication – A. Weingartner. Scan Messtechnik GmbH (Austria)</p> <p>4.15 PM: Microbial Electrochemical Sensor (MES) For Real-time Detection of Heavy Metals Present in Used Water – H. Y. Ng, S. Kharkwal, C. H. C. Trung, E. M. H. Tan, K. K. Liau, Y. Gu. National University of Singapore (Singapore)</p> <p>4.30 PM: A Smart Unmanned Aerial Vehicle (UAV) Based Imaging System for Inspection of Deep Hazardous Tunnels – C. H. Tan, M. Ng, D. Sufiyan Bin Shaiful, K. H. Win, W. J. Ang, H. B. Lim, S. K. Yeung, M. Do, S. Foong. Singapore University of Technology & Design (Singapore)</p> <p>4.45 PM: Smarter Management of Waste Water Treatment Plant 360° Performance – P. Dauthuille, P. Blanc. Suez (France)</p>	<p>[3.3] Water Sensitive Urban Design Chairs: Rob Skinner, Monash University (Australia); Steve Moddemeyer, CollinsWoerman (USA)</p> <p>4.00 PM: Global Best Practice in Water Sensitive Urban Design – M. Fletcher. Arup (UK)</p> <p>4.15 PM: Soul of Nørrebro - Innovative Climate Adaptation Process as an Instrument for Increased Urban Quality and Resiliency at A District Scale – C. N. Nielsen. Ramboll (Denmark)</p> <p>4.30 PM: The Integration of Critical Facilities and Infrastructure Hardening and Longer Term Resiliency Strategies in the New York City and New Jersey Region – E. Westerhof. Arcadis U.S, Inc. (United States)</p> <p>4.45 PM: Applying the Water Sensitive City Framework for Climate Adaptation in the North Sea Region: First Impression from the CATCH Project – N. Dolman, S. Lijzenga, G. Özerol, H. Bressers, M. Böge, H. Bormann. Royal HaskoningDHV (the Netherlands)</p>	<p>[4.3] Metagenomics Chairs: Frederic Leusch, Griffith University (Australia); Koo-Oshima, Sasha, USEPA (USA)</p> <p>4.00 PM: Overview of Metagenomics Applications in Water Industry – P. Hong. King Abdullah University of Science and Technology (Saudi Arabia)</p> <p>4.20 PM: Characterization of Resistomes in Wastewaters and Surface Waters Using Metagenomics – H. Chen, C. Ng, M. Tay, B. Tan, L. Haller, K. Gin. NUS (Singapore)</p> <p>4.30 PM: Combined Metagenomics and Metatranscriptomics Approaches in Studies of Biological Wastewater Treatment – Z. Tong. University of Hong Kong (Hong Kong)</p> <p>4.40 PM: Antimicrobial Resistance Work Plan – A. Wester. WHO/Water, Sanitation, Health (Switzerland)</p>

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9.00 AM	<p>[1A.4] Non-Revenue Water Reduction Chairs: Abelardo Basilio, Manila Water (Philippines); Hamanth Kasan, Rand Water (South Africa)</p> <p>9.00 AM: Saving Every Drop - Detecting Leaks On Distribution and Transmission Pipelines – L. K. Sriramula, K. C. Lai, S. C. Ko. PUB (Singapore)</p> <p>9.15 AM: Strategy to Reduce Non-Revenue Water Loss in Unitywater – S. Taylor. Unitywater (Australia)</p> <p>9.30 AM: Towards a Lower Leakage Rate Society: Implementation and Recent Development of Holistic Leakage Control Programme in China – S. Liu. School of Environment Tsinghua University (China)</p> <p>9.45 AM: Trenchless Technologies for Non-Revenue Water Reduction – A. Gross. Raedlinger Primus Line GmbH</p>	<p>[1B.4] Low Energy Desalination Chairs: Nikolay Voutchkov, Water Globe Consultants LLC (USA); Kevin Price, Middle East Desalination Research Centre (Oman)</p> <p>9.00 AM: Forward Osmosis and Membrane Distillation as Emerging Desalting Technologies: Assessment of Technology Development Landscape – G. Amy, Z. Li, L. Francis, N. Ghaffour. National University of Singapore (Singapore)</p> <p>9.15 AM: Challenges in Designing of Desalination Plant with Dual Intakes for Energy Efficiency – K. P. Chiu, K. S. Goh, S. K. Chee, S. T. Leo, T. Mann, K. Khoo, G. Wu, E. K. Goh, P. T. Tay. AECOM (Singapore)</p> <p>9.30 AM: Emerging Technologies for Next Generation Low Carbon Power-Desal Plant Configurations – T. Altmann. ACWA Power (United Arab Emirates)</p> <p>9.45 AM: RED/dRED Pilot Study for Desalination Brine Recovery – H. Zhuang, M. Lumibao, R. Mallampati, Y.H. Zhao, N. Moe, K.K. Kee, J. Barber. Suez Water Technologies & Solutions (Singapore)</p>	<p>[2A.4] Genomics for Community Selection Chairs: Leon Downing, Black and Veatch (USA); Hong Peiying, KAUST (Saudi Arabia)</p> <p>9.00 AM: Beyond Metagenomic Analysis of Microbial Communities to Understand Anaerobic Digester Performance – S. Wuertz, A. Ng, A. A. Cokro, Y. Xu, A. F. Mohiddin Batcha, K. Arumugam, E. Hill. Singapore Centre for Environmental Life Sciences Engineering (Singapore)</p> <p>9.15 AM: Nitrification through High Dissolved Oxygen Selection Against Nitrospira – Y. Law, S. Swa Thi, X. Chen, T. Q. N. Nguyen, R. B. H. Williams, B. Ni, T. W. Seviour, S. Wuertz. Nanyang Technological University (Singapore)</p> <p>9.30 AM: The Strategic Value of Molecular Techniques to Drive Operational Performance Improvements in Full Scale Anaerobic Digesters – P. Kroff, D. Conteau, S. Courtois, G. Gaval, S. Martin Ruel, L. Mazeas, R. Chamy, H. Vanden Bossche. Suez (France)</p> <p>9.45 AM: Selection Approaches for Aerobic Granulation – B. Sturm, University of Kansas (USA)</p>	<p>[2B.4] Energy Efficient Wastewater Management Chairs: Tao Li, International Water Association (Greater China Office); Avner Adin, The Hebrew University of Jerusalem (Israel)</p> <p>9.00 AM: Benchmarking the 30 Largest WWTP Operated by Suez on the French Market: Emphasizing OPEX, Energy Efficiency and Sludge Disposal Towards Sustainable DBO and BOT Projects – S. Donnaz, P. Arnaud, M. A. Sanz. Suez Treatment Infrastructure (France)</p> <p>9.15 AM: Balancing Carbon and Biology to Maximise Biogas Production While Achieving NEWater and Effluent Goals at the Tuas WRP – T. Constantine, E. Shen, C. Newbery, S. T. Koh, W. H. Yong, W. S. Liow, Y. W. Loh. Jacobs (Canada)</p> <p>9.30 AM: Embracing Disruptive Technologies to Future-Proof Water Resource Recovery Facilities – P. Nielsen, J. Sandino. VCS Denmark (Denmark)</p> <p>9.45 AM: Energy Savings Performance Contract: A Case Study of Liverpool Waste Water Treatment Plant – K. Vijayanand, H. Andrew, A. Shaw. Black & Veatch (USA)</p>	<p>[3.4] Basin Connected Cities Chairs: Mark Fletcher, Arup (UK); Glen Daigger, IWA; ASCE; WEF; University of Michigan (USA)</p> <p>9.00 AM: Getting Ahead of Singapore's Storms: Return on Experience – O. Pison, A. Mahadevan, B. Chan, K. A. Makktom, K. T. P. Nguyen. SUEZ Services Pte Ltd (Singapore)</p> <p>9.15 AM: Improving Awareness of Emergency Water Supply Stations – R. Wada, Y. Unno, S. Kagami, S. Yamazaki, T. Futami, T. Yamaguchi. Yokohama Waterworks Bureau (Japan)</p> <p>9.30 AM: Manila Water's Resiliency and Business Interruption Study – L. M. Gugol. Manila Water Company, Inc. (Philippines)</p> <p>9.45 AM: Community Engagement and Pollution Mitigation at Kandy Lake, Sri Lanka – S. Jinadasa, S.K. Weragoda, E. Valencia, V. Sim, W. J. Ng. University of Peradeniya (Sri Lanka)</p>	<p>[4.4] Water and Sanitation Safety Plans Chairs: David Cunliffe, SA Health (Australia); Anwar Huq, University of Maryland (USA)</p> <p>9.00 AM: Status of Water Safety Plans and Sanitation Safety Plans in Asia/ Pacific Region – D. Sutherland. World Health Organization (India)</p> <p>9.15 AM: Water Quality Management: Ensuring Safe Drinking Water – M. H. Lim. PUB (Singapore)</p> <p>9.30 AM: Extending Water Safety Plan Concept to Wastewater Treatment Operations – F. Arellano, K. Catangatang. Maynilad Water Services, Inc. (Philippines)</p> <p>9.40 AM: Water and Sanitation Safety in Humanitarian Emergencies – P. Byleveld. NSW Health (Australia)</p> <p>10.00 AM: Guidance on Developing Drinking-water Quality Regulations and Standards</p>
10.30 AM	TEA BREAK @ LEVEL 3 FOYER					
11.00 AM	<p>[1A.5] Customer Centric Businesses Chairs: Stuart Wilson, Water Services Association of Australia (Australia); Jodieann Dawe, Flinders University (Australia)</p> <p>11.00 AM: Putting Customers at the Heart of Our Business – J. Spencer. Anglian Water Services (UK)</p> <p>11.15 AM: Customer Hub – Towards an Enhanced Customer Experience – D. Cash. Sydney Water Corporation (Australia)</p> <p>11.30 AM: Using Technology to Improve Customer Service – K. Sorensen. Phoenix Water Services (USA)</p> <p>11.45 AM: E-bill and the Use of Elect AMR in Enhancing Customer Services – L. Tan. SP Services (Singapore)</p>	<p>[1B.5] Electrochemical Desalination Chairs: Hong Seungkwan, Korea University (Korea); Ahmad Al-Arifi, Saline Water Conversion Corporation (Saudi Arabia)</p> <p>11.00 AM: A Review on Concept and Applications of Electrochemical Ion Separation Process – J. Yoon. Seoul National University (Korea)</p> <p>11.15 AM: Pilot Demonstration of >90% Recovery NEWater Process Using RO-EDR Hybrid Technology – R. Mallampati, G. Gunasheela, N. Moe, B. John. Suez Water Technology Solutions (Singapore)</p> <p>11.30 AM: Low Energy Sea Water Desalination Using NexEDTM Electro-dialysis -Experience from the Demonstration Plant Development in Tuas Singapore – X. Qiao, H. Han, M. Shaw, K. Yeo, L. Liang, R. Sih, H. Seah. Evoqua Water Technologies Pte Ltd (Singapore)</p>	<p>[1B.7] Ceramic Membrane Chairs: Puah Aik Num, PUB (Singapore); Jonathan Clement, the Netherlands</p> <p>11.00 AM: An Overview of Ceramic Membrane Technology for Water Treatment – G. Galjaard, PWNT (the Netherlands)</p> <p>11.15 AM: Ozone Enhanced Ceramic Membrane Filtration for Wastewater Recycling – P. Spencer, S. Domingos, B. Edwards, D. Howes, J. Clement, G. Milton, H. Scheerman, H. Shorney-darby. Water Corporation of Western Australia (Australia)</p> <p>11.30 AM: Application of Flat Sheet Ceramic Membrane for Surface Water and Seawater Treatments – Introduction of Performance in large-scale Drinking Water Plant and Seawater Pretreatment Pilot System in Singapore – H. Noguchi, T. Niwa, M. H. Oo, E. Fong, R. Yin, N. Supaat. Meiden Singapore Pte Ltd (Singapore)</p>	<p>[2B.5] Biosolids & Energy Recovery Chairs: Amit Pramanik, Water Research Foundation (USA); Sylvain Donnaz, Suez Water Treatment Infrastructures (France)</p> <p>11.00 AM: Anaerobic Co-digestion of Food Waste and Municipal Wastewater Treatment Plant Sludge at Demo Scale – J. Josse, J. Low. Anaergia Singapore Pte Ltd (Singapore)</p> <p>11.15 AM: The Ultimate Combination of Sustainable Biosolids Treatment Technologies – B. Johnson, D. Gabel, P. Burrowes, L. Lum, D. Oerke, R. Rath, C. Newbery. Jacobs (USA)</p> <p>11.30 AM: Integration of Thermal Hydrolysis, Anaerobic Digestion and Sidestream Deammonification at DC Water – C. de Barbado. DC Water (USA)</p> <p>11.45 AM: Moving Towards Maximum Biosolids Reduction: Ultra-dewatering of Sludge – M. Choo-Kun, C. Prevot, P. E. Pardo, J. L. Bourdais, E. Judenne, F.</p>	<p>[3.5] Water-Wise Communities (1) Chairs: Olivia Jensen, IWP, NUS (Singapore); Mariëlle van der Zouwen, KWR Watercycle Research Institute (the Netherlands)</p> <p>11.00 AM: A New Approach to Integrated Water Management in Victoria, Australia - Achieving Results Through Policy, Projects and Partnership – D. Corbett, D. Brown, R. Skinner. Department of Environment, Land, Water and Planning (Australia)</p> <p>11.15 AM: Planning for Resilience for the City of San Diego (California, USA) Through Increasing Water Supply Reliability – R. Renner, J. Helminski, D. Owen, S. Trussell, J. Minton. Water Research Foundation (USA)</p> <p>11.30 AM: Fair and Responsible Management of Water: Putting Value on Potable Water as A Political and Societal Priority – E. Fiechter-Widemann, B. Girardin. Workshop for Water Ethics (W4W) (Singapore)</p>	<p>[4.5] Rapid Detection of Microbes Chairs: Marion Savill, Affordable Water Ltd (New Zealand); Bruce Gordon, WHO (Switzerland)</p> <p>11.00 AM: Application of Biosensors for Water Quality Monitoring: An Overview – M. Kitajima. Hokkaido University (Japan)</p> <p>11.20 AM: Detection of Drinking Water Contamination by an Optical Real-time Bacteria Sensor – B. Højris, S. N. Kornholt, S. C. B. Christensen, H. J. Albrechtsen, L. S. Olesen. Grundfos Holding A/S (Denmark)</p> <p>11.34 AM: Rapid Detection, Characterization and Enumeration of Pathogens in Environmental Waters – K. Gin. National University of Singapore (Singapore)</p> <p>11.47 AM: Current State and Trends in Rapid Detection of Pathogen and its Importance – A. Huq. University of Maryland (USA)</p>

TIME (HRS)	Theme 1: Delivering Water From Source to Tap		Theme 2: Effective And Efficient Wastewater Value Management		Theme 3: Water For Liveability And Resilience	Theme 4: Water Quality & Health
	(A) Network <i>CASSIA 3203, LEVEL 3</i>	(B) Treatment <i>CASSIA 3201AB, LEVEL 3</i>	(A) <i>CASSIA 3301AB, LEVEL 3</i>	(B) <i>CASSIA 3303, LEVEL 3</i>	<i>CASSIA JR 3211, LEVEL 3</i>	<i>CASSIA JR 3311, LEVEL 3</i>
		11.45 AM: FePO4/rGO Composite Anode for High Performance Electrochemical Deionization & Dual-ion Electrochemical Deionization – L. Guo , Singapore University of Technology and Design (Singapore)	11.45 AM: Groundwater Treatment by Ceramic Membranes - Pilot Tests at the Commonwealth Games Village Delhi, India – S. Pillai , C. Walder, J. Lahnsteiner, Y. P. Koganti, P. Gupta. VA Tech Wabag Ltd. (India)	Lebars, P. Camacho, A. Fournot McGill. SUEZ Treatment Infrastructure (France)	11.45 AM: Creating Value with Water Sensitive Solutions – J. Verlinde , City of Rotterdam (the Netherlands)	12.00 PM: Poster Pitching
12.30 PM	LUNCH @ LEVEL 3					
2.00 PM	<p>[1A.6] Water Conservation & Efficiency Measures Chairs: David Garman, the Water Council (Australia); Wong Waicheng, PUB (Singapore)</p> <p>2:00 PM: A Water Wise Future: Educating Tomorrow's Leaders Today – G. Pearson, Rand Water (South Africa)</p> <p>2:15 PM: Water Management and Conservation in Industrial Sector – H. H. Huang, Y. D. Huang, C. P. Chu, Y. J. Chung. Sinotech Engineering Consultants, Inc. (Taiwan)</p> <p>2:30 PM: Going Real Time in Water Conservation, Our Experience – W. C. Wong, H. T. Ng, R. Chan, B. Evain. PUB (Singapore)</p> <p>2:45 PM: Using Smart Meters and Data Analytics to Improve Water Use Efficiency – R. Cardell-Oliver, CRC Water Sensitive Cities (Australia)</p>	<p>[1B.6] Pre-treatment for Desalination Chairs: Nilaksh Kothari, Manitowoc Public Utilities (USA); Niwa Terutake, Meiden Singapore</p> <p>2:00 PM: Introduction of Pre-treatment for Desalination – N. Voutchkov, Water Globe Consulting LLC (USA)</p> <p>2:15 PM: Influence of Algae on Pre-treatment by Ultrafiltration of Seawater Reverse Osmosis – P. Buchta, M. Hoffmann, C. Staaks, D. Vial, R. Winkler, P. Berg. inge GmbH (Germany)</p> <p>2:30 PM: The New Chemical Free Way to Prevent Scaling and Fouling in a High Recovery RO Process – B. Liberman, IDE Technologies Ltd (Israel)</p> <p>2:45 PM: Innovative Approach in Developing Cost Effective SWRO Pre-treatment System – A. Al-Almoudi, Saline Water Conversion Cooperation (Saudi Arabia)</p>	<p>[1B.8] Potable Reuse Chairs: Ian Law, IBL Solutions (Australia); Robert Angelotti, Upper Occoquan Service Authority (USA)</p> <p>2:00 PM: Developing A Regional Recycled Water Program in Southern California – S. Trussell, G. Lai-Bluml, M. Chaudhuri, G. Johnson. Trussell Technologies, Inc. (USA)</p> <p>2:15 PM: HRS'D's Vision for Advanced Water Treatment and Managed Aquifer Recharge in Eastern Virginia, USA: Sustainable Water Initiative for Tomorrow (SWIFT) – C. Bott, J. Dano, G. Salazar-Benites, C. Wilson, L. Zuravnsky, J. Mitchell, L. Rice, T. Nading, L. Schimmoller, D. Holloway, T. Henifin. Hampton Roads Sanitation District (USA)</p> <p>2:30 PM: Experiences of Reuse Associated with Managed Aquifer Recharge – S. Donnaz, P. Gislette, M. A. Sanz. Suez Treatment Infrastructure (France)</p> <p>2:45 PM: Alternative Approach for Municipal Water Reuse: Pilot Results – J. B. Yaish, IDE Technologies Ltd (Israel)</p>	<p>[2B.6] Decentralised Wastewater Treatment Chairs: Jay Bhagwan, Water Research Commission (South Africa); Ganesh Pangare, World Water Institute (Thailand)</p> <p>2:00 PM: Overview of Decentralised Treatments – D. Kone, Bill & Melinda Gates Foundation (USA)</p> <p>2:20 PM: Accelerating Innovation of Community-Scaled Resource-Oriented Faecal Sludge Treatment Through International Standards – M. Y. Chan, R. Lee, TUV SUD Asia Pacific (Singapore)</p> <p>2:40 PM: Anaerobic Digestion of Septage Sludge in Metro Manila – D. Perez, Manila Water Company, Inc. (Philippines)</p>	<p>[3.6] Water-Wise Communities (2) Chairs: Bernadette Conant, Canadian Water Network (Canada); Paul Reiter, Reiter International Water Solutions Ltd (Hong Kong)</p> <p>2:00 PM: Transitioning to Water Sensitive Cities: Insights and Lessons from Six Australian Cities – K. Hammer, B. C. Rogers, A. Gunn, E. Church, C. Chesterfield. Monash University (Australia)</p> <p>2:15 PM: Abatement of Pollution of Ground & Surface Water Bodies Through Better Total Water Cycle Management & Being Water Wise – S. Samuel, A. Ho, A. Das. ECOSOFT Pte Ltd (Singapore)</p> <p>2:30 PM: Empowering Water Utility Innovation as A Pathway to Sustainability – J. Batten, J. Carter. Arcadis (USA)</p> <p>2:45 PM: A Wastewater Chain Network with Municipalities, A Waterboard and Water Companies Using the Mutual Gains Approach (mga) to Realize Lower Costs and Less Vulnerability – M. Paardekooper, waterboard Delfland (the Netherlands)</p>	<p>[4.6] Chemicals in Water Chairs: Jennifer de France, WHO (Switzerland); David Sutherland, WHO (Switzerland)</p> <p>2:00 PM: Nano Materials in Water - A Public Health Concern? – C.N. Ong, NUS (Singapore)</p> <p>2:20 PM: Molecular Identification and Detection of 2-Methylisoborneol (MIB) Producing Cyanobacteria in Surface Water Bodies – C. Feng, S. W. Lam, S. Y. Chang, J. Tan. PUB (Singapore)</p> <p>2:34 PM: Preventing Public Health Concerns by Using Advanced Water Quality Monitoring Sensors and Integrated Event Detection Software – A. Weingartner, B. Thompson. s::can Measuring Systems (USA)</p> <p>2:47 PM: Artificial Intelligence Based Monitoring System of Water Quality Parameters for Early Detection of Non-specific Bio-Contamination in Water Distribution Systems – S. Tinelli, I. Juran. University of Pavia (Italy)</p> <p>3.00 PM: Poster Pitching</p>
3.30 PM	TEA BREAK @ LEVEL 3 FOYER					

WATER CONVENTION CLOSING PLENARY AND BEST POSTER WINNERS AWARD CEREMONY – Level 3, Begonia 3002

4.00pm – 5.20pm	<p>Moderator: Mr Darryl Day, Managing Director, International Centre of Excellence in Water Resources Management (ICE WaRM) Dr Marion Savill, Executive Director, Affordable Water Ltd, New Zealand</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Prof Kalanithy Vairavamoorthy, Executive Director, International Water Association (IWA) • Mr Michael Toh, Chief Information Officer, PUB, Singapore's national water agency (Singapore) (Leader for Theme 1A: Delivering Water from Source to Tap (Network)) • Mr Jonathan Clement, the Netherlands (Leader for Theme 1B: Delivering Water from Source to Tap (Treatment)) • Mr Pascal Dauthuille, Director, Partnerships and Collaborative Projects, SUEZ (France) (Leader for Theme 2: Effective and Efficient Wastewater Value Management) • Prof Rob Skinner, Professorial Fellow, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University (Australia) (Leader for Theme 3: Water for Liveability and Resilience) • Dr Robert Bos, Independent Consultant, Water, Sanitation, Environment and Public Health (Switzerland) (Leader for Theme 4: Water Quality & Health)
5.20pm – 5.30pm	Best Poster Winners Award Presentation Ceremony