WATER CONVENTION PROGRAMME SUMMARY
(Updated as of 11 Jun 2018 and subjected to changes)

8 July 2018, Sunday

Time	Description	Venue
9.00 AM	**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	**Water Convention Hot Issues Workshops (Afternoon Session)** 1. Potable Reuse - A Safe, Sustainable and Mainstream Solution (programme start at 1.30 PM) 2. Coping With Extreme Events - Getting Real About the Inevitable	 Begonia 3001AB Begonia 3101AB
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
9.00 AM	**Opening Ceremony for Singapore International Water Week – World Cities Summit – CleanEnviro Summit Singapore**	
9.10 AM	**In-Conversation with The Honourable Ranil Wickremesinghe, Prime Minister, Sri Lanka**	
10.10 AM	**Tea break**	
10.30 AM	**Opening Plenary**	
11.45 AM	**Expo Activities and Guided Tour followed by Lunch**	
1.30 PM	**Lee Kuan Yew World City Prize and Water Prize Lectures**	
2.50 PM	**Tea break**	
3.30 PM	**Water Convention Poster Presentation**	

10 July 2018, Tuesday

Time	Description	Venue
9.00 AM	**Keynote by His Excellency Ban Ki-moon, 8th Secretary-General, United Nations**	Level 5, Sands Grand Ballroom ABGH
9.50 AM	**Water Convention Keynote Plenary**	Level 5, Sands Grand Ballroom ABGH
11.05 AM	**Tea break**	
11.30 AM – 5.30PM	**Water Convention Technical Sessions (6 Parallel Tracks)**	Level 3

11 July 2018, Wednesday

Time	Description	Venue
9.00 AM - 3.30 PM	**Water Convention Technical Sessions (6 Parallel Tracks)** – *continued*	Level 3
4.00 PM	**Water Convention Closing Plenary and Best Poster Winners Award Ceremony**	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	**[Title to be confirmed]** ▪ Mr Ridzuan Ismail, Director of Water Supply (Network), PUB, Singapore
9.20 AM	**[Title to be confirmed]** ▪ Mr Roch Cheroux, Chief Executive Officer, South Australian Water Corporation, 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**
10.30am	**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, South Australian Water Corporation, 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** ▪ Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia
9.10 AM	**Challenges for Informal Settlements in Makassar, Indonesia** ▪ Ms Jane Wardani, RISE Program Coordinator, Indonesia
9.20 AM	**Delivering Water Services in Informal Settlements in Fiji - the Challenges to 'Closing the Loop' and 'Leaving Nobody Behind'** ▪ Ms Kerrie Burge, International Engagement Manager, Cooperative Research Centre for Water Sensitive Cities, Australia
9.30 AM	**Introduction to the RISE Programme** ▪ Prof Tony Wong, Chief Executive, Cooperative Research Centre for Water Sensitive Cities, Australia
9.50 AM	**TBC**
10.05 AM	**Q&A**
10.30 AM	**Tea Break**
11.00 AM	**Q&A on RISE Programme** ▪ Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia
11.15 AM	**Tabletop Workshop - Exploring Adoption Pathways** ▪ Prof Robert Skinner, Monash Water Sensitive Cities, Monash Sustainable Development Institute, Monash University, Australia ▪ Ms Jane Wardani, RISE Program Coordinator, Indonesia ▪ 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 ▪ Dr Matthew French, RISE Programme Manager, Monash Sustainable Development Institute, Monash University, Australia
12.00 AM	**Feedback, Discussion and 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, Switzerland
Time	**Description**
9.00 AM	**Welcome and Introduction** ▪ Dr Robert Bos, Independent Consultant, Switzerland
9.05 AM	**Emerging Concerns and Public Health Responses: Lessons Learned and New Challenges** ▪ Dr David Cunliffe, Principal Water Quality Adviser, Department of Health, Australia
	Session: 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** Dr Emanuela Testai, Research Director, Istituto Superiore di Sanità, Italy
9.40 AM	**Rhine Case Study – When Is It Threatening Our Water Supply?** ▪ Mr Jonathan Clement, the Netherlands
9.55 AM	**Emerging Contaminants-A Question of Balance** ▪ Prof John Fawell, Visiting Professor, Water Science Institute, Cranfield University, UK
10.10 AM	**Panel Discussion on Emerging Chemical Contaminants** ▪ 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, Associated Professor, Griffith University, Australia
10.30 AM	**Tea Break**
	Session on Emerging Pathways for Microbial Contaminants **Moderator:** Dr Indira 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** ▪ 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** ▪ Dr Marion Savill, Executive Director, Affordable Water Ltd, New Zealand
11.25 AM	**Panel Discussion on Emerging Pathways for Microbial Contaminants** ▪ Dr Sasha Koo-Oshima, Senior International Water Advisor, U.S Environment Protection Agency, United States ▪ Mr Francisco Arellano, Head of Corporate Quality, Environment, Safety and Health Management, 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** ▪ 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** ▪ Dr Tong Zhang, Professor, The University of Hong Kong, Hong Kong SAR, Hong Kong-China
12.10 PM	**Panel Discussion on Antimicrobial Resistance** ▪ Dr Astrid Louise Wester, Water and Sanitation Unit, WHO, Geneva ▪ 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, Vice President, Brown & Caldwell, 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, Associated Professor, 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, Associated Professor, 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	**Understanding How the Public Views Risk** ▪ Prof Paul Slovic, Professor, University of Oregon, USA
4.15 PM	**One WATER Engagement Tools** ▪ Ms Melissa Meeker, Vice President, Brown & Caldwell, 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, Vice President, Brown & Caldwell, 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	TBC
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** ▪ Mr Francisco Arellano, Head of Corporate Quality, Environment, Safety and Health Management, 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** ▪ Dr Sudhir Murthy, PhD, PE, NEWhub, USA
9.15 AM	**Survey of Water Utilities and Drivers for Thermal Hydrolysis** ▪ Mr Jeff Moeller, Director of Water Technologies, LIFT Program, WRF, USA
9.30 AM	**Using Thermal Hydrolysis to Optimize Treatment of Sewage Sludge** ▪ Dr Bill Barber, Technical Director, Cambi, Inc., USA
9.45 AM	**[title to be confirmed]** ▪ Dr Chen Xiaohua, Chief Engineer, Veolia Water Technologies, China
10.00 AM	**TurboTec®--Proven Continuous Thermal Hydrolysis** ▪ 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** ▪ Dr Troels Hilstrøm, R&D Director, Haarslev Industries A/S, Denmark
10.30 AM	**Tea Break**
11.00 AM	**Thermal Carbonization: Back to the Future- A Utility Case Study** ▪ Mr Eric Judenne, Biosolids & Air Technical Director, SUEZ, France
11. 15 AM	**Advanced Anaerobic Digestion Project in Changsha - Design, Construction, Commissioning and Operation** ▪ Dr Xue Yonggang, Tongji Shanghai Energy Company, China
11.30 AM	**Panel Discussion** ▪ Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France ▪ Dr Sudhir Murthy, PhD, PE, NEWhub, USA ▪ Mr Jeff Moeller, Director of Water Technologies, LIFT Program, WRF ▪ Mr Eric Judenne, Biosolids & Air Technical Director, SUEZ, France ▪ Dr Xue Yonggang, Tongji Shanghai Energy Company, 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** ▪ 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** ▪ Mr Jianguo Wang, Tianjin Yuchun Microbial Products Co. Ltd, China
2.30 PM	**Biological hydrolysis** ▪ Dorian Harrison, SUEZ
2.45 PM	**[title to be confirmed]** ▪ Prof Jurg Keller, Deputy Director Research, Advanced Water Management Centre, The University of Queensland
3.00 PM	**Electron Beam (eBeam) as a disruptive technology for the pre-treatment for anaerobic digestion** ▪ Dr Suresh Pillai, National Center for Electron Beam Research, Texas A&M University
3.15 PM	**Panel Discussion** ▪ 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** ▪ Ms Ester Rus, Principal Research Engineer, Thames Water, UK
4.15 PM	**Panel Discussion** ▪ Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France ▪ Ms Ester Rus, Principal Research Engineer, Thames Water, UK ▪ Dr Sudhir Murthy, PhD, PE, NEWhub, USA ▪ Dr Winson Lay, General Manager, PUB, Singapore ▪ Ms An Lin, Beijing Drainage Group, China
5.15 PM	**Concluding Remark** ▪ Mr Pascal Dauthuille, Director, Partnerships and collaborative projects, SUEZ, France

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 *CASSIA 3203, LEVEL 3*	(B) Treatment *CASSIA 3201AB, LEVEL 3*	(A) *CASSIA 3301AB, LEVEL 3*	(B) *CASSIA 3303, LEVEL 3*	*BEGONIA JR 3211, LEVEL 3*	*CASSIA JR 3212, LEVEL 3*
11.30 AM	**[1A.1] Network of The Future** **Chairs**: **Michael Toh**, PUB (Singapore); **Hamanth Kasan**, Rand Water (South Africa) **11.30 AM**: Planning for the Future Water Network – **K. Vairavamoorthy**. International Water Association (the Netherlands) **11.45 AM**: Transition from Intermittent to Continuous Water Supply – **D. Duccini**, A. Mokssit. SUEZ (France) **12.00 PM**: Smart Water Network for Water Quality Optimisation – **G. Booth**, J. Cooper. Arcadis (UK) **12.15 PM**: Earthquake Resilient: Keeping Water Flowing to 400,000 People Following a Major Earthquake in Wellington – **A. Cameron**, M. Kinvig. Cardno NZ (New Zealand)	**[1B.1] Hybrid Advanced Oxidation Process** **Chairs**: **Shane Snyder**, NEWRI (Singapore); **TBC** **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) **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) **12.00 PM**: Alternative Treatment Strategy with Ceramic Membrane for Wastewater Reuse – **R. Floris**, S. Gabriel, J. Zheng, G. Galjaard. PWNT (the Netherlands) **12.15 PM**: Safe and Sustainable Reuse in New Mexico (USA) Through Ozone-Based AOP – **J. Scheideler**. Xylem (USA)	**[2A.1] Membrane-based Wastewater Treatment** **Chairs**: **Pascal Dauthuille**, SUEZ (France); **Ng How Yong**, NUS (Singapore) **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) **11.45 AM**: Algal Versus Conventional Wastewater Treatment: Comparison of Microbial Communities – **N. N. Khandan**, H. M. Delanka-Pedige, S. P. Munasinghe-Arachchige, Y. Zhang. New Mexico State University (USA) **12.00 PM**: 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) **12.15 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)	**[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) **11.30 AM**: Asset Management and IT master planning – **S. Arora**. Halifax Water (Canada) **11.45 AM**: Improving Flood Management in Metro Manila – **J. Stoutjesdijk**. World Bank (USA) **12.00 PM**: Interceptor and River Water Treatment for the River of Life, Kuala Lumpur, Malaysia – **P. Von Huben**, S. Chan. Jacobs (Australia) **12.15 PM**: (PUB)	**[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) **11.30 AM**: Moral Dimensions of Resilience in Integrated Urban Systems – **P. Brown**, S. Trussell. Paul Redvers Brown Inc. (USA) **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) **12.00 PM**: Water's Essential Role in Achieving the Sustainable Development Goals – **L. Werbeloff**, B. Rogers, C. Chesterfield, J. Ewert. Monash University (Australia) **12.15 PM**: Playing Our Part to Achieve the SDGs – **C. Flew**, T. Muller, R. Wheen. WaterAid (Cambodia)	**[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) **11.30 AM**: Policy and Regulation across the 6 SDG6 Targets – **R. Bos**, Water, Sanitation, Environment and Public Health (Switzerland) **11.45 AM**: Regulatory Policies in Monitoring Emerging Contaminants and Antimicrobial Resistance – **S. Koo-Oshima**. U.S. EPA (United States) **11.55 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) **12.05 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) **12.15 PM**: A Comprehensive Assessment of Level of Service Based on Risk – **F. Cubillo**. Canal de Isabel II (Spain)
1.00 PM	**LUNCH @ LEVEL 3**					
2.00 PM	**[1A.2] Smart Network** **Chairs**: **Darryl Day**, International Centre of Excellence in Water Resources Management (Australia); **TBC** **2.00 PM**: SA Water – **R. Cheroux.** SA Water (Australia) **2.15 PM**: Smart Water Network and Future Plan – **T. W. Kok**. PUB (Singapore) **2.30 PM**: Strategic Cleaning Solution for Water Networks – **D. Duccini**, D. Sinapah, T. VanBecelaere. SUEZ (France) **2.45 PM**: Ensuring Stable Water Supply by Centralized Administrative Control Over a Large-scale Water Supply Network – **H.**	**[1B.2] Natural Organic Matter** **Chairs**: **Gary Amy**, NUS; Clemson University (Singapore; USA); **Rob Renner**, Water Research Foundation, USA **2.00 PM**: Influence of NOM on Post-Filtration Treatment – **H. Shorney-Darby**, I. Caltran. PWNT (the Netherlands) **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) **2.30 PM**: Nanofiltration for Organic Removal – **S. Sutherland**. Scottish Water (UK)	**[2A.2] Membrane Biofilm Reactor** **Chairs**: **Andrew Shaw**, Black & Veatch (USA); **David Jenkins**, University of California, Berkeley (USA) **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) **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)	**[2B.2] Deep Tunnel System** **Chairs**: **David Rager**, American Water Works Association (USA); **TBC** **2.00 PM**: Motivation and learning points for DTSS – **W. H. Yong**. PUB (Singapore) **2.15 PM**: Singapore Deep Tunnel Sewerage System Phase 2, Hydraulic – **D. Brocard**, Black & Veatch AECOM Joint Venture (Singapore) **2.30 PM**: Drone Technologies for Maintenance of Deep Tunnel System Where There's No GPS Navigation – **F. Wang**. AeroLion Technologies Pte Ltd (Singapore)	**[3.2] Regenerative Water Services** **Chairs**: **Glen Daigger**, IWA; ASCE; WEF; University of Michigan (USA); **Paul Reiter**, Reiter International Water Solutions Ltd (Hong Kong) **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) **2.15 PM**: Enhancing Livebility 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)	**[4.2] Protection, Monitoring and Evaluation of Source Water Quality** **Chairs**: **Robert Bos**, (Switzerland); **Laurence Haller**, NUS (Singapore) **2.00 PM**: Assessing Source Water Quality – **M. Savill**. Affordable Water Ltd (New Zealand) **2.15 PM**: Simulated Pathogen Survival in Open Canals Under Changing Flow Conditions in Singapore – **N. Shome**, S. Wuertz. NTU (Singapore) **2.25 PM**: Disinfection of Drainage Pumps as Unconventional Point Sources of Contamination for Bathing Waters – **A. Carducci**, I. Federigi, A. Landucci, G.

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	(A) Network *CASSIA 3203, LEVEL 3*	(B) Treatment *CASSIA 3201AB, LEVEL 3*	(A) *CASSIA 3301AB, LEVEL 3*	(B) *CASSIA 3303, LEVEL 3*	*BEGONIA JR 3211, LEVEL 3*	*CASSIA JR 3212, LEVEL 3*
	Taniguchi. Bureau of Waterworks, Tokyo Metropolitan Government (Japan)	**2.45 PM**: Innovative Approach to Preventing RO Fouling Caused by Humic Substances – **K. Imai**, C. Shimpo. Kurita Water Industries (Japan)	**2.30 PM**: Anaerobic MBR for Self-sufficient Sewer Mining and Water Reuse – **F. Rogalla**, FCC Aqualia (Spain) **2.45 PM**: Membrane Biofilm Reactor (MBfR) – **J. Keller**, CRC for Water Sensitive Cities (Australia)	**2.45 PM**: TARP - Flood Alleviation & Water Quality – **T. Kunetz**. Metropolitan Water Reclamation District of Greater Chicago (USA)	**2.30 PM**: Water Management in Smart City: Case Study of Faridabad, India – **S. Shekhar**, A. Mukherjee, S.N. Dwivedi, S. Shekhar. Ministry of Water Resources, RD & GR (India) **2.45 PM**: Toward Best Practices for Increasing Public Understanding of Water Reuse – **M. Meeker**, L. Macpherson, I. Law, J. Minton. Brown and Caldwell (USA)	Donzelli, R. Iannelli, C. Pretti, F. Tardelli, V. Casu, M. Verani. University of Pisa (Italy) **2.35 PM**: Improving Accountability and Accessibility of Water Quality Monitoring by Using Cellular Enabled Data Collection and Validation, A Case Study – **A. Bhattacharya**. Government of West Bengal (India) **2.45 PM**: Monitoring Water Quality in Singapore Reservoirs with Hyperspectral Remote Sensing Technology – **S. C. Liew**, C. K. Choo, T. C. Dang. NUS (Singapore) **2.55 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	**[1A.3] Network Condition Assessment** **Chairs**: **Wong Meng King**, PUB (Singapore); **Martin Lambert,** University of Adelaide (Australia) **4.00 PM**: New Approaches to Pipe Condition Assessment Using Pressure Transients – **M. Lambert**. University of Adelaide (Australia) **4.15 PM**: Water Network Renewal in Singapore: A Risk Based Approach – **G. Booth**, T. Qiu. Arcadis (UK) **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) **4.45 PM**: Identifying Explanatory Variables of Failures for Asset Lifetime Models Construction – **F. Cubillo**, P. Gómez-Martínez. Canal de Isabel II (Spain)	**[1B.3] Treatment of Emerging Contaminants** **Chairs**: **Jonathan Clement**, (the Netherlands); **Vernon Snoeyink**, University of Illinois (USA) **4.00 PM**: Engineered Nanoparticle Materials and Potable Reuse, Should We Be Concerned? – **I. Law**. IBL Solutions (Australia) **4.15 PM**: Advanced Oxidation for Control of Micropollutant from Rhine River, North Holland – **B. Martijn**. PWNT (the Netherlands) **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) **4.45 PM**: Ozonation and Advanced Oxidation for Micropollutant Control of WWTP Effluent in a Reuse Scheme in North Holland – **B. Martijn**, G. Zoutberg, J. C. Kruithof. PWNT (the Netherlands)	**[2A.3] Shortcut Biological Nutrient Removal** **Chairs**: **Sudhir Murthy**, NEWhub (USA); **Andrew Williams**, Clay Township Regional Waste District (USA) **4.00 PM**: High-rate C capture, aerobic granulation, deammofication and the application of physical selectors – **B. Wett**, AraConsunt (Austria) **4.15 PM**: A Pilot-scale Membrane Bioreactor Plant Incorporating Mainstream Nitritation-denitritation Process for Municipal Used Water Reclamation – **H. Wang**, G. Xu, Z. Qiu, Y. Zhou, H. Png, W. Lay, B. Kwok, Y. Liu. NTU (Singapore) **4.30 PM**: Achieving Long-term and Stable Mainstream Nitritation 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) **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)	**[2B.3] Sensors for Smart Wastewater Management** **Chairs**: **Frank Rogalla**, FCC Aqualia (Spain)**;** **TBC** **4.00 PM**: Identification and Management of Industrial Wastewater Emissions by Smart Sensing and Real-time Communication – **A. Weingartner**. Scan Messtechnick GmbH (Austria) **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) **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. Foon,. Singapore University of Technology & Design (Singapore) **4.45 PM**: Smarter Management of Waste Water Treatment Plant 360° Performance – **P. Blanc**. SUEZ (France)	**[3.3] Water Sensitive Urban Design** **Chairs**: **Rob Skinner**, Monash University (Australia); **Steve Moddemeyer**, CollinsWoerman (USA) **4.00 PM**: Global Review of Water Sensitive Urban Design – **M. Fletcher**. Arup (UK) **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) **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) **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)	**[4.3] Metagenomics** **Chairs**: **Frederic Leusch**, Griffith University (Australia); **Koo-Oshima, Sasha**, USEPA (USA) **4.00 PM**: TBC – **P. Hong**. King Abdullah University of Science and Technology (Saudi Arabia) **4.15 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) **4.25 PM**: Combined Metagenomics and Metatranscriptomics Approaches in Studies of Biological Wastewater Treatment – **Z. Tong**. University of Hong Kong (Hong Kong) **4.35 PM**: Antimicrobial Resistance Work Plan – **A. Wester**. WHO/Water, Sanitation, Health (Switzerland)

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9.00 AM	**[1A.4] Non-revenue Water Reduction** **Chairs**: **Abelardo Basilio**, Manila Water (Philippines); **TBC** **9.00 AM**: Saving Every Drop - Detecting Leaks On Distribution and Transmission Pipelines – **K. C. Lai**, L. K. Sriramula, S. C. Ko. PUB (Singapore) **9.15 AM**: New Sustainable Distribution Strategy by Pressure Modulation in the Paris Drinking Water Distribution System – **A. Taliby**, F. Rocher, N. Delivert, F. Montiel. Polytech, Montpellier (France) **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) **9.45 AM:** TBC	**[1B.4] Low Energy Desalination** **Chairs**: **Nikolay Voutchkov**, Water Globe Consultants LLC (USA); **Kevin Price,** Middle East Desalination Research Centre (Oman) **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) **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) **9.30 AM**: Emerging Technologies for Next Generation Low Carbon Power-Desal Plant Configurations – **T. Altmann**. ACWA Power (United Arab Emirates) **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)	**[2A.4] Genomics for Community Selection** **Chairs**: **Leon Downing**, Black and Veatch (USA); **TBC** **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) **9.15 AM**: Nitritation 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) **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) **9.45 AM:** Selection Approaches for Aerobic Granulation – **B. Sturm**, University of Kansas (USA)	**[2B.4] Energy Efficient Wastewater Management** **Chairs**: **Tao Li**, International Water Association (Greater China Office); **Avner Adin**, The Hebrew University of Jerusalem (Isarel) **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) **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. Jacobs (Canada) **9.30 AM**: Embracing Disruptive Technologies to Future-Proof Water Resource Recovery Facilities – **P. Nielsen**, J. Sandino. VCS Denmark (Denmark) **9.45 AM:** Energy Savings Performance Contract: A Case Study of Liverpool Waste Water Treatment Plant – **A. Chastain-Howley**, K. Vijayanand, H. Andrew. Black & Veatch (USA)	**[3.4] Basin Connected Cities** **Chairs**: **Mark Fletcher**, Arup (UK); **Ryan Yuen**, BNL Engineering (S) Pte Ltd **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) **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) **9.30 AM**: Manila Water's Resiliency and Business Interruption Study – **L. M. Gugol**. Manila Water Company, Inc. (Philippines) **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)	**[4.4] Water and Sanitation Safety Plans** **Chairs**: **David Cunliffe**, SA Health (Australia); **Anwar Huq**, University of Maryland (USA) **9.00 AM**: Status of Water Safety Plans and Sanitation Safety Plans in Asia/ Pacific Region – **D. Sutherland**. World Health Organization (India) **9.15 AM**: Establishment of A System for Drinking Water Quality Management, Lessons from Ghana – **S. Abaidoo**, K. Tsekpetse-Akuamoah. Ministry of Sanitation and Water Resources (Ghana) **9.25 AM**: Extending Water Safety Plan Concept to Wastewater Treatment Operations – **F. Arellano**, K. Catangcatang. Maynilad Water Services, Inc. (Philippines) **9.35 AM:** Water and Sanitation Safety in Humanitarian Emergencies – **P. Byleveld**. NSW Health (Australia) **9.45 AM:** Launch of Guidelines on How to Develop Drinking Water Quality Regulations and Standards – **J. de France**, D. Cunliffe, J. Fawell. World Health Organization (Switzerland)
10.30 AM	**TEA BREAK @ LEVEL 3 FOYER**					
11.00 AM	**[1A.5] Customer Centric Businesses** **Chairs: Stuart Wilson**, Water Services Association of Australia (Australia); **TBC** **11.00 AM**: Case Studies of Water Savings Through Prompt Leak Detection in Both Private and Public Properties – **J. Spencer**. Anglian Water (UK) **11.15 AM**: Customer Hub – Towards an Enhanced Customer Experience – **C. Darren**. Sydney Water Corporation (Australia) **11.30 AM**: Enhancing Customers' Experience in Delivering Drinking Water Using Smart Technologies – **K. Sorensen**. Phoenix Water Services (USA) **11.45 AM**: E-bill and the Use of Elect AMR in Enhancing Customer Services – **K. H. Chuah**. SP Services (Singapore)	**[1B.5] Electrochemical Desalination** **Chairs: Hong Seungkwan**, Korea University (Korea); **Ahmad Al-Arifi**, Saline Water Conversion Corporation (Saudi Arabia) **11.00 AM**: A Review on Concept and Applications of Electrochemical Ion Separation Process – **J. Yoon**. Seoul National University (Korea) **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) **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.	**[1B.7] Ceramic Membrane** **Chairs: Puah Aik Num**, PUB (Singapore); **TBC** **11.00 AM**: An Overview of Ceramic Membrane Technology for Water Treatment – **G. Galjaard**, PWNT (the Netherlands) **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) **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	**[2B.5] Biosolids & Energy Recovery** **Chairs: Amit Pramanik**, Water Environment Research Foundation (USA); **Sylvain Donnaz**, SUEZ Water Treatment Infrastructures (France) **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) **11.15 AM**: The Ultimate Combination of Sustainable Biosolids Treatment Technologies – **B.R. Johnson**, D. Gabel, P. Burrowes, L. Lum, D. Oerke, R. Rath, C. Newbery. Jacobs (USA) **11.30 AM**: Integration of Thermal Hydrolysis and Sidestream Deammonification at DC Water – **C. de Barbadillo**. DC Water (USA)	**[3.5] Water-Wise Communities (1)** **Chairs: Olivia Jensen**, IWP, NUS (Singapore); **Mariëlle van der Zouwen**, KWR Watercycle Research Institute (the Netherlands) **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) **11.15 AM**: Empowering Water Utility Innovation as A Pathway to Sustainability – **J. Batten**, J. Carter. Arcadis (USA) **11.30 AM**: Fair and Responsible Management of Water: Putting Value on Potable Water as A Political and Societal Priority – **E. Fiechter-Widemann**, B.	**[4.5] Rapid Detection of Microbes** **Chairs: Marion Savill**, Affordable Water Ltd (New Zealand); **Bruce Gordon**, WHO (Switzerland) **11.00 AM**: Application of Biosensors for Water Quality Monitoring: An Overview – **M. Kitajima**. Hokkaido University (Japan) **11.15 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) **11.25 AM**: Rapid Detection, Characterization and Enumeration of Pathogens in Environmental Waters – **K. Gin**. National University of Singapore (Singapore)

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		Yeo, L. Liang, R. Sih, H. Seah. Evoqua Water Technologies Pte Ltd (Singapore) **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)	System in Singapore – **H. Noguchi**, T. Niwa, M. H. Oo, E. Fong, R. Yin, N. Supaat. Meiden Singapore Pte Ltd (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)	**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. Lebars, P. Camacho, A. Fournot McGill. SUEZ Treatment Infrastructure (France)	Girardin. Workshop for Water Ethics (W4W) (Singapore) **11.45 AM**: Creating Value with Water Sensitive Solutions – **J. Verlinde**. City of Rotterdam (the Netherlands)	**11.35 AM**: Overview of the Current State of Art in Rapid Detection Methods of Pathogen – **A. Huq**. University of Maryland (USA) **11.45 AM: Poster Pitching**
12.30 PM	**LUNCH @ LEVEL 3**					
2.00 PM	**[1A.6] Water Conservation & Efficiency Measures** **Chairs**: **Wong Waicheng,** PUB (Singapore)**; TBC** **2:00 PM**: A Water Wise Future: Edutaining Tomorrow's Leaders Today – **G. Pearson**. Rand Water (South Africa) **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) **2:30 PM**: Going Real Time in Water Conservation, Our Experience – **W. C. Wong**. H. T. Ng, R. Chan, B. Evain. PUB (Singapore) **2:45 PM**: Using Smart Meters and Data Analytics to Improve Water Use Efficiency – **R. Cardell-Oliver**. CRC Water Sensitive Cities (Australia)	**[1B.6] Pre-treatment for Desalination** **Chairs**: **Nilaksh Kothari**, Manitowoc Public Utilities (USA); **TBC** **2:00 PM**: Introduction of Pre-treatment for Desalination – **N. Voutchkov**. Water Globe Consulting LLC (USA) **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) **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) **2:45 PM**: Innovative Approach in Developing Cost Effective SWRO Pre-treatment System – **A. Al-Almoudi**. Saline Water Conversion Cooperation (Saudi Arabia)	**[1B.8] Potable Reuse** **Chairs**: **Ian Law**, IBL Solutions (Australia); **Robert Angelotti**, Upper Occioquan Services Authority (USA) **2:00 PM**: Developing A Regional Recycled Water Program in Southern California – **R. Trussell**, G. Lai-Bluml, M. Chaudhuri, G. Johnson. Trussell Technologies, Inc. (USA) **2:15 PM**: HRSD'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) **2:30 PM**: Experiences of Reuse Associated with Managed Aquifer Recharge – **S. Donnaz**, P. Gislette, M. A. Sanz. SUEZ Treatment Infrastructure (France) **2:45 PM**: Alternative Approach for Municipal Water Reuse: Pilot Results – **L. Eshed**. IDE Technologies Ltd (Israel)	**[2B.6] Decentralised Wastewater Treatment** **Chairs**: **Jay Bhagwan**, Water Research Commission (South Africa); **TBC** **2:00 PM**: Overview of decentralised treatments – **D. Kone**. Bill & Melinda Gates Foundation (USA) **2:15 PM**: Accelerating Innovation of Community-Scaled Resource-Oriented Faecal Sludge Treatment Through International Standards – **M. Y. Chan**, R. Lee. TUV SUD Asia Pacific (Singapore) **2:30 PM**: Application of Integrated Membrane Bioreactor (MBR) with Hydroponic System for Decentralized Wastewater Treatment – **J. Zhang**. CITIC Envirotech Limited (Singapore) **2:45 PM**: Anaerobic Digestion of Septage Sludge in Metro Manila – **D. Perez**. Manila Water Company, Inc. (Philippines)	**[3.6] Water-Wise Communities (2)** **Chairs**: **Bernadette Conant**, Canadian Water Network (Canada); **Paul Reiter**, Reiter International Water Solutions Ltd (Hong Kong) **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) **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. ECOSOFTT Pte Ltd (Singapore) **2:30 PM**: 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 Environment & Reuse Foundation (USA) **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)	**[4.6] Chemicals in Water** **Chairs**: **Jennifer de France**, WHO (Switzerland); **David Sutherland**, WHO (Switzerland) **2:00 PM**: Nano Materials in Water - A Public Health Concern? – **C.N. Ong**. NUS (Singapore) **2:15 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) **2:25 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) **2:35 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) **2.45 PM: Poster Pitching**
3.30 PM	**TEA BREAK @ LEVEL 3 FOYER**					