

# 8<sup>th</sup> IWA-ASPIRE Conference and Exhibition



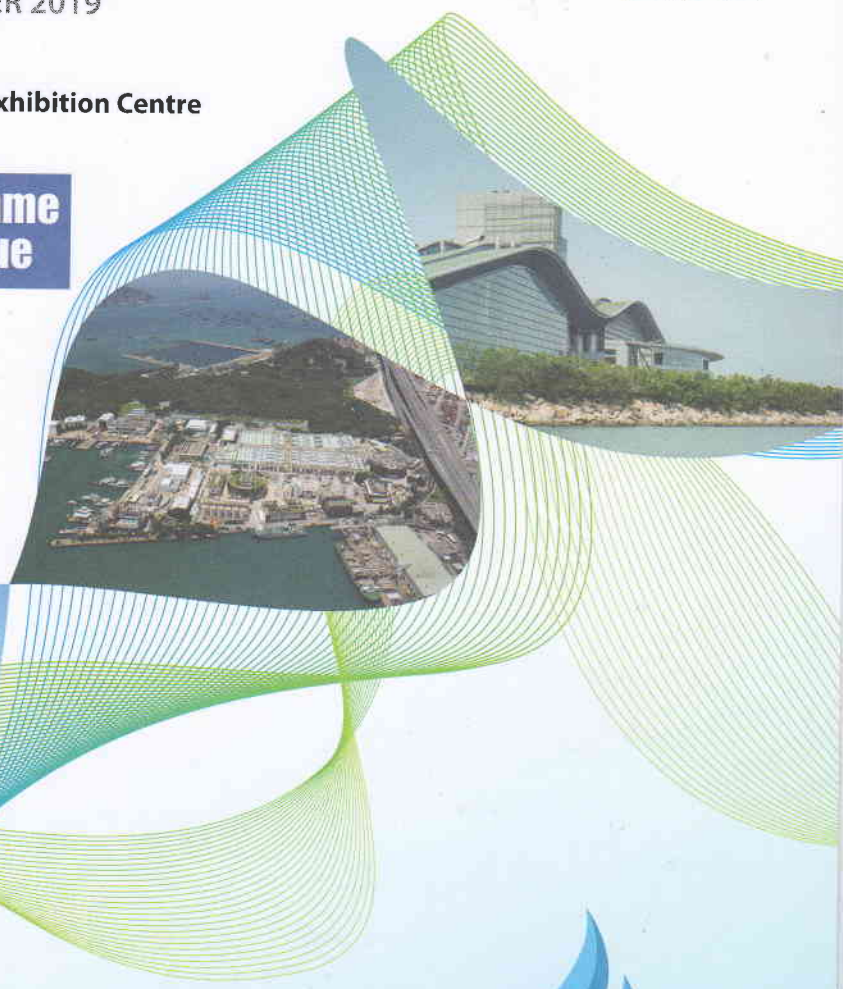
## Smart Solutions for Water Resilience

31 OCTOBER - 2 NOVEMBER 2019  
HONG KONG



Hong Kong Convention and Exhibition Centre

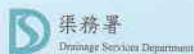
Conference Programme  
& Exhibition Catalogue



Organisers:



Co-organisers:



[www.iwaaspire2019.org](http://www.iwaaspire2019.org)

## Keynote Speakers



**Prof Gary AMY**  
*Dean Distinguished Professor,  
Clemson University, USA*

Prof Gary Amy holds two academic appointments: Dean's Distinguished Professor in the College of Engineering at Clemson University USA; and Visiting Professor in Chemical Engineering at the National University of Singapore. Formerly, he was the founding Director of the Water Desalination and Reuse Center at KAUST, as held a faculty position at the Technical University of Delft in the Netherlands. Prof Amy's major area of research is membrane technologies for desalination and reuse. He has published over 400 journal articles and has supervised more than 50 PhD students. Dr Amy was the recipient of the AWWA A. P. Black Research Award in 2017.



**Ir Henry K. M. CHAU**  
*Ex-Assistant Director, Drainage Services  
Department, HKSAR Government*

Ir Henry KM CHAU is currently the System Advisor of Drainage Services Department after his retirement. He joined Hong Kong Government after graduation in 1980 and was promoted to Assistant Director/Sewage Services in 2015. He has been working in the wastewater engineering field for over 35 years. He has been involved in a large number of sewerage, sewage treatment and storm water drainage projects, in particular the mega-sized environmental infrastructural project namely, the Harbour Area Treatment Scheme (HATS). He received a team award for the 15th Tien-yow Jeme Civil Engineering Prize in 2017.



**Prof Guang-hao CHEN**  
*Chair Professor, The Hong Kong University of  
Science and Technology, Hong Kong*

Prof GH CHEN obtained his PhD in Environmental Engineering at Kyoto University in 1990 and joined the Hong Kong University of Science and Technology (HKUST) in 1995. Currently he is a chair professor of Civil and Environmental Engineering at HKUST, Director of Water Technology Center of HKUST, Head of the CNERC for control and treatment of heavy metal pollution (Hong Kong Branch), and Associated Director of the Institute for the Environment of HKUST. GH was elected Distinguished Fellow of the International Water Association (IWA), received four international awards including the Global Honor Award of IWA Project Innovation Awards (PIA), a winner of the Chinese National Innovation Pioneer Awards, a bronze winner of IWA PIA of Breakthroughs in Research Development, and gold award of Hong Kong Green Innovation Awards. Professionally GH is a member of the Strategic Council of IWA, Editor of Water Research.



**Prof Sung-uk CHOI**  
*Professor, Yonsei University, South Korea*

Prof Sung-uk CHOI is a Professor at Department of Civil & Environmental Engineering, Yonsei University, Seoul,

Korea. Professor Choi obtained B.S. and M.S. degrees at Civil Engineering, Seoul National University, Seoul, Korea, and Ph.D. degree at Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, US. His research area includes numerical and physical modeling of turbidity currents, computations of turbulent flows, sediment transport, and eco-hydraulics. He is a member of International Association of Hydro-Environment Engineering and Science (IAHR), American Society of Civil Engineers (ASCE), Korean Society of Civil Engineers (KSCE), and Korea Water Resources Association. Currently, Dr Choi is an Editor of Journal of Hydro-Environment Research (IAHR-APD) and Associate Editor of Journal of Hydraulic Engineering (ASCE).



**Dr David CUNLIFFE**  
*Principal Water Quality Adviser,  
South Australia Department of Health,  
Australia*

Dr David Cunliffe is the principal water quality specialist with the South Australian Department for Health. He is a regulator with over 35 years of experience dealing with public health aspects of drinking water, recycled water and recreational water including investigation of water-borne disease outbreaks. He led the development and implementation of the South Australian Safe Drinking Water Act.

David has been a member of WHO Water Quality Committees since 2001, is Chair of the WHO Drinking-Water Guideline Development Group and past chair and current member of the Australian National Water Quality Advisory Committee. He has contributed to a range of national and international guidelines on drinking water quality, safe use of recycled water including potable reuse and recreational water.

David was a lead author of the WHO text on Developing Drinking-water Quality Regulations and Standards, the lead editor for WHO texts on potable reuse, water safety in distribution systems and water safety in buildings and contributed to other specialist texts on Legionella and pharmaceuticals in drinking water. He contributes to research on public health aspects of water quality and has published on drinking water quality, desalination, rainwater quality and waterborne disease.

He is a member of expert water quality panels in Singapore and Hong Kong.



**Mr Darryl DAY**  
*Managing Director, International Centre of  
Excellence in Engineering & Management  
(ICE WaRM), Australia*

Mr Darryl Day is the Managing Director of ICE WaRM and has more than 35-years of experience in the water and energy sectors. In May 2019, Darryl was awarded the Australian Water Association's Water Professional of the Year. He is a Life Member of the Australian Water Association and was the National President of the Association from 2005 to 2007. In 2018 Darryl was appointed as a Distinguished Fellow of the International Water Association, a Fellow of Engineers Australia and awarded the Professional Engineer of the Year for Engineers Australia - Northern Division. Previously, Darryl was Executive Director Water Directorate, Department of Land Resource Management with the Northern Territory Government and General Manager with the Power and Water Corporation. Darryl Chairs the

## Main Conference - 2 Nov

Please visit our Conference Website for the most updated programme.



Time	Programme	Venue (HKCEC)
08:00 - 17:30	Registration	Ground Floor Reception Concourse
09:00 - 09:30	<b>Plenary Keynote Session 6</b> Innovations in Urban Flood Risk Management - Fusion of Real-time Sensing, Model Simulation, and Data Assimilation Prof Hiroaki FURUMAI (Japan)	Theatres 1 & 2, level 1
09:35 - 11:15	<b>Keynote Session 6 (6 Parallel Sessions)</b>	
	<b>Keynote Session 6.1 : Urban Water Management</b> Urban Water Management - Water Resources and Quality Prof Kalanithy VAIRAVAMOORTHY (United Kingdom) Oral Presentation (Please refer to Conference Mobile App)	Theatre 1, level 1
	<b>Keynote Session 6.2 : Flood Disaster and Adaptation Measures</b> Analyses of the Hydrologic Performance of Bioretention Facilities Prof James LI (Canada) Oral Presentation (Please refer to Conference Mobile App)	Theatre 2, level 1
	<b>Keynote Session 6.3 : Advanced Wastewater Treatment II</b> Direct Filtration of Municipal Wastewater Using Flat-sheet Ceramic Membranes for Pollutant Removal and Resource Recovery Prof Xiao-yan LI (Hong Kong) Oral Presentation (Please refer to Conference Mobile App)	S423 - S424, level 4
	<b>Keynote Session 6.4 : Biodiversity and Ecosystem-based Approach in Water Management</b> River Restoration in the Context of Hong Kong: Challenges and Prospects Prof Cho-nam NG (Hong Kong) Oral Presentation (Please refer to Conference Mobile App)	S426 - S427, level 4
	<b>Keynote Session 6.5 : Water Treatment and Public Health</b> Adaptive WSPs: The Key to Resilient Safe Water Supplies Dr David CUNLIFFE (Australia) Oral Presentation (Please refer to Conference Mobile App)	S428, level 4
	<b>Keynote Session 6.6 : Forward Thinking Water Solutions</b> Impact of Selective Withdrawal in a Large Reservoir on Downstream Fish Habitats Prof Sung-uk CHOI (South Korea) Oral Presentation (Please refer to Conference Mobile App)	S425, level 4
11:15 - 11:30	Coffee Break and Exhibition Poster Viewing (Please refer to Conference Mobile App)	Convention Hall & Foyer, level 1 S421, level 4
11:35 - 12:05	<b>Plenary Keynote Session 7</b> Towards A New International Water Innovation Hub Prof Joseph H.W. LEE (Hong Kong)	Theatres 1 & 2, level 1
12:10 - 12:40	<b>Expert Plenary Discussion</b>	Theatres 1 & 2, level 1
12:40 - 13:10	<b>Closing Ceremony</b>	Theatres 1 & 2, level 1
13:30 - 18:00	<b>Technical Visits</b>	Various Sites