

# EWM2017 (Final Programme)

**26 April 2017 (Day 1)**

Venue	Time	Programme
<b>Bugis Grand Ballroom, Intercontinental</b>	08:00 - 09:00	<b>Registration</b> (1 hour)
	09:00 - 09:05	<b>Welcome and Opening</b> Prof. Rong WANG Conference Chair, Nanyang Technological University and Singapore Membrane Technology Centre, Singapore
	09:05 - 09:20	<b>Opening Speech by Guest of Honour</b> Mr. Harry SEAH Chief Engineering & Technology Officer of PUB Singapore's National Water Agency <i>Singapore's Success Story and Journey on Membranes in Water and Wastewater Treatment</i>
		<b>Plenary Session</b> Session Chair: Prof. Anthony G. FANE
	09:20 - 10:00	<b>Plenary Lecture 1</b> Prof. Dibakar BHATTACHARYYA University of Kentucky, USA <i>Advanced Membranes for Water Applications</i>
	10:00 - 10:40	<b>Plenary Lecture 2</b> Prof. Enrico DRIOLI University of Calabria, Italy Authors: E. Drioli, G. Di Profio, F. Macedonio, A. Criscuoli <i>Membrane Operations and New Materials for Biomedical Applications</i>
	10:40 - 10:50	<b>Group Photo Taking</b>
	10:50 - 11:20	<b>Coffee Break</b> (30 mins)
		<b>Bugis Grand Ball Room I</b>
		<b>Session A: Water Treatment, Desalination &amp; Reclamation</b> Session Chair and Co-Chair: Prof. William B KRANTZ and Prof. Saravanamuth VIGNESWARAN
		<b>Bugis Grand Ball Room II</b>
		<b>Session B: Membrane for Molecular Separation &amp; Special Application</b> Session Chair and Co-Chair: Prof. Wanqin JIN and Prof. Allan TUNG
	11:20 - 11:45	Keynote Lecture A1 Prof. William B KRANTZ University of Colorado, USA Authors: Süer Kürklü, Sadiye Velioglu, M. Göktug Ahunbay, S. Birgül Tantekin-Ersolmaz, William B. Krantz <i>Concurrent Desalination and Boron Removal (CDBR) Process</i>
	11:45 - 12:10	Keynote Lecture A2 Prof. Saravanamuth VIGNESWARAN University of Technology Sydney, Australia Authors: G. Naidu, S. Jeong, and S. Vigneswaran <i>Membrane Distillation for Improving Water Recovery in Wastewater Reclamation Plant: Reverse Osmosis Concentrate Treatment</i>
12:10 - 12:30	Oral A3 Wenhai Luo, Faisal Hai, William E. Price, Long D. NGHIEM University of Wollongong, Australia <i>Osmotic Versus Conventional Membrane Bioreactors Integrated with Reverse Osmosis for Water Reuse: Biological Stability, Membrane Fouling, and Contaminant Removal</i>	
12:30 - 13:40	<b>Lunch</b> (1 hour 10 mins)	
13:40 - 14:05	Keynote Lecture A4 Prof. Anastasios J KARABELAS Centre for Research and Technology, Greece Authors: A.J. Karabelas, C.P. Koutsou, D.C. Sioutopoulos, M. Kostoglou <i>Comprehensive Method for Performance Assessment of Feed-Spacers in Spiral Wound Membrane Modules</i>	
14:05 - 14:25	Oral A5 Jung Eun Kim, Sherub Phuntsho, Jun Young Choi, Ho Kyong SHON University of Technology, Sydney (UTS) Australia <i>Spiral wound forward osmosis membrane module arrangement options in series: Performance, economic and environmental assessment</i>	
14:25 - 14:45	Oral A6 M. DUKE Victoria University, Australia <i>Membrane Distillation Industrial Trial Experiences and Process Integration</i>	
14:05 - 14:25	Oral B5 Him Cheng WONG, Virgile Viasnoff, Hong Yee Low Singapore University of Technology and Design, Singapore <i>Roll-to-Roll Fabrication of Ordered Through-Hole Membranes with Tuneable Micro/Sub-micrometer Pore Geometry</i>	
14:25 - 14:45	Oral B6 M. YOUNAS, W. U. Rehman, Q. A. Khan, W. Zeb University of Engineering and Technology, Peshawar, Pakistan <i>Osmotic Distillation of Fruit Juice Concentration Using Hollow Fiber Membrane Contactor: Experimentation, Modeling and Simulation</i>	
<b>CleanTech One @ CleanTech Park</b>	15:00 - 16:00	Bus to CleanTech One
	16:00 - 17:15	<b>Visit to Singapore Membrane Technology Centre (SMTTC)</b> (1 hour 15 mins)
<b>Lecture Theatre 1 (LT1), Nanyang Technological University (NTU)</b>	17:15 - 17:30	Bus to NTU LT1
	17:30 - 20:00	<b>Special Session to Honour Prof. Anthony G. Fane</b>
		Speaker 1 Prof. Roger BEN AIM Authors: R. Ben Aim, S. Jeong, B.K. Khan, S. Carretier, V. Ederly and T. Leiknes Institute of Filtration and Techniques of Separation (IFTS), France <i>Monitoring of Biofilms and Biofouling Potential during RO Operation: State of the Art and Trends</i>
		Speaker 2 Prof. Greg LESLIE University of New South Wales, Australia
	Speaker 3 Dr. Adrian YEO Sembcorp, Singapore	
	Speaker 4 Prof. Rong WANG Nanyang Technological University, Singapore <i>Singapore Membrane Technology Centre</i>	
	Speaker 5 Prof. Anthony G. FANE Nanyang Technological University, Singapore <i>Sharing of Journey</i>	
	<b>Welcome Reception</b>	
	20:00 - 21:00	Bus to InterContinental

**27 April 2017 (Day 2)**

Venue	Time	Programme		
Bugis Grand Ballroom, Intercontinental		<b>Plenary Session</b> Session Chair: Prof. Rong WANG		
	08:30 - 09:10	<b>Plenary Lecture 3</b> Prof. Young Moo LEE Hanyang University, South Korea <i>Advanced Membranes for Energy Generation</i>		
	09:10 - 09:50	<b>Plenary Lecture 4</b> Prof. Ingo PINNAU King Abdullah University of Science and Technology, Saudi Arabia <i>Membrane-based Gas Separations in the 21st Century</i>		
	09:50 - 10:20	<b>Coffee Break (30 mins)</b>		
		<b>Bugis Grand Ball Room I</b>		
		<b>Bugis Grand Ball Room II</b>		
		<b>Session C: Fouling</b> Session Chair and Co-Chair: Prof. Harvey WINTERS and Prof. Stephen GRAY		
		<b>Session D: Membrane for Gas Separation I</b> Session Chair and Co-Chair: Prof. Enrico DRIOLI and Prof. Michael GUIVER		
	10:20 - 10:45	<table border="0"> <tr> <td align="center">                     Keynote Lecture C1                      Prof. Harvey WINTERS                      Fairleigh Dickinson University, USA  <i>The Importance of Lectin-Like Humics and Concentration Polarization in Promoting Organic and Microbial Fouling of Seawater Reverse Osmosis Membranes</i> </td> <td align="center">                     Keynote Lecture D1                      Prof. Michael GUIVER                      Tianjin University, China                      Authors: Z. Qiao, S. Zhao, J. Wang, S. Wang, Z. Wang, and M. D. Guiver  <i>Fast CO<sub>2</sub>-Selective Channels in Mixed-Matrix Membranes</i> </td> </tr> </table>	Keynote Lecture C1 Prof. Harvey WINTERS Fairleigh Dickinson University, USA <i>The Importance of Lectin-Like Humics and Concentration Polarization in Promoting Organic and Microbial Fouling of Seawater Reverse Osmosis Membranes</i>	Keynote Lecture D1 Prof. Michael GUIVER Tianjin University, China Authors: Z. Qiao, S. Zhao, J. Wang, S. Wang, Z. Wang, and M. D. Guiver <i>Fast CO<sub>2</sub>-Selective Channels in Mixed-Matrix Membranes</i>
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12:30 - 13:40	<b>Lunch (1 hour 10 mins)</b>			
	<b>Bugis Grand Ball Room I</b>			
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	<b>Session E: Characterization &amp; Monitoring</b> Session Chair and Co-Chair: Prof. Hans COSTER and Prof. TorOve LEIKNES			
	<b>Session F: Membrane for Water Treatment &amp; Desalination I</b> Session Chair and Co-Chair: Prof. Kang LI and Prof. Robert FIELD			
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15:30 - 16:00	<b>Coffee Break (30 mins)</b>			
Foyer Level 2, Intercontinental	16:00 - 18:30	<b>Poster Session (2.5 hours)</b> <b>3-minute Speech for Student Best Poster Award</b>		
Intercontinental	18:30 - 21:00	<b>Conference Dinner (2.5 hours)</b>		

Venue	Time	Programme	
Bugis Grand Ballroom, Intercontinental		<b>Bugis Grand Ball Room I</b>	<b>Bugis Grand Ball Room II</b>
		<b>Session G: Pre-treatment</b> Session Chair and Co-Chair: Prof. Peter HUCK and Dr. Emile CORNELISSEN	<b>Session H: Membrane for Water Treatment and Desalination II</b> Session Chair and Co-Chair: Prof. Mihail BARBOIU and Prof. Manish KUMAR
	08:30 - 08:55	Keynote Lecture G1 Prof. Peter HUCK University of Waterloo, Canada <i>Biofiltration – a 'Green' and Effective Membrane Pre-treatment</i>	Keynote Lecture H1 Prof. Mihail BARBOIU Institut Européen des Membranes, France <i>Artificial Water Channels</i>
	08:55 - 09:20	Keynote Lecture G2 Dr. Emile CORNELISSEN KWR Watercycle Research Institute, Netherlands Authors: E.R. Cornelissen, B. Blankert, D.J.H. Harmsen, L.P. Wessels, W.G.J. van der Meer <i>Controlling RO Fouling After Minimal Pre-Treatment</i>	Keynote Lecture H2 Prof. Manish KUMAR Pennsylvania State University, USA Authors: Manish Kumar, Yue-xiao Shen, Tingwei Ren <i>Biomimetic and Bioinspired Membranes: Opportunities, Challenges and New Directions</i>
	09:20 - 09:40	Oral G3 <u>Wouter PRONK</u> EAWAG, Switzerland <i>Gravity Driven Membrane (GDM)</i> <i>Overview of Gravity-Driven Membrane Technology and Applications</i>	Oral H3 <u>Hassan A. ARAFAT</u> , Samer Al-Gharabli, Joanna Kujawa, Musthafa O. Mavukkandy Masdar Institute of Science and Technology, United Arab Emirates <i>Functional Groups Docking on PVDF Membranes Using a Novel Piranha-Reaction Approach</i>
	09:40 - 10:00	Oral G4 Hwang, K.J., <u>H.Y. TSAI</u> , J.F. Susanto, K.L. Tung National Taiwan University, Taiwan <i>Flux Recovery of Powdered Activated Carbon Coating Membrane in Cross-flow Microfiltration Process Using Fenton Reagent</i>	Oral H4 <u>Z. WANG</u> , Y. Tang, B. Li, W. Chen Southern University of Science and Technology (SUSTech), China <i>Preparation of Polyvinylidene Fluoride Hollow Fiber Membranes with Bicontinuous Porous Structure and Its Membrane Distillation Property</i>
	10:00 - 10:20	Oral G5 <u>Ying WANG</u> , Chao Chen, Xiaojian Zhang, Jianguyong Hu Tsinghua University, China <i>Technical Feasibility Study of Using An Integrated SPAC-ceramic Membrane Filtration Process for Ranitidine Removal in Water</i>	Oral H5 <u>A. DROR-EHRE</u> , R. Gal-Oz Hydrophilic Processes Ltd., Israel <i>The Pull And Push Membrane</i>
	10:20 - 10:40	Coffee Break (20 mins)	
		<b>Bugis Grand Ball Room I</b>	<b>Bugis Grand Ball Room II</b>
		<b>Session I: Industrial &amp; Bioprocess Application</b> Session Chair and Co-Chair: Prof. Linda ZOU and Dr. Samer ADHAM	<b>Session J: Membrane for Gas Separation II</b> Session Chair and Co-Chair: Prof. Vicki CHEN and Prof. Shaomin LIU
10:40 - 11:05	Keynote Lecture I1 Prof. Linda ZOU Masdar Institute of Science and Technology, United Arab Emirates Authors: Y. Chun and L. Zou <i>Fouling Characteristics of Bench Scale and Small Pilot FO Processes</i>	Keynote Lecture J1 Prof. Vicki CHEN University of New South Wales, Australia Authors: J. Hou, Y. Zhang, P. Sutrisna, C. Ji, L. Li, W. Zhong, H. Li, and V. Chen <i>Nanocomposite Membranes: New Strategies and Opportunities</i>	
11:05 - 11:30	Keynote Lecture I2 Dr. Samer ADHAM ConocoPhillips, Qatar <i>Membrane Applications and Opportunities in the Oil &amp; Gas Industry</i>	Keynote Lecture J2 Prof. Shaomin LIU Curtin University, Australia <i>Inorganic Hollow Fibre Membranes for Gas Separations: State of the Art and Future Directions</i>	
11:30 - 11:50	Oral I3 <u>Frank LIPNIZKI</u> , Ann-Sofi Jönsson Alfa Laval Naskov A/S, Sweden <i>Fouling and Cleaning in the Food and Bioprocess Industry: Key Aspects in Membrane Plant Operation</i>	Oral J3 M. Lanč, Z. Sofer, K. Pilnáček, D. Bouša, O. Vopička, B. Štrochová, M. Klepić, <u>K. FRIESS</u> University of Chemistry and Technology Prague, Czech Republic <i>Thin Self-Standing Graphene Oxide Membranes For Efficient Hydrogen Separation</i>	
11:50 - 12:10	Oral I4 <u>Filicia WICAKSANA</u> , Anthony Wong, Min Chun, Mohammed Farid The University of Auckland, New Zealand <i>Fouling Control Strategies In Micro/Ultrafiltration For Dairy Related Applications</i>	Oral J4 <u>Jeong F. KIM</u> , Young Mi Kim, Ahrumi Park, Pyung Soo Lee, Young Hoon Cho, Ho Sik Park, Seung Eun Nam, You In Park Korea Research Institute of Chemical Technology, Korea <i>Biogas Upgrading using Membrane Contactor Process: Pressure-Cascaded Stripping Configuration</i>	
12:10 - 12:30	Oral I5 <u>Melanie LEE</u> , Bo Wang, Kang Li Imperial College London, UK <i>High-capacity Open Bore Membrane Chromatography Column based on Micro-packed Inorganic Hollow Fibres</i>	Oral J5 C. Rizzuto, A. Brunetti, A. Caravella, C. H. Park, Y. M. Lee, G. Barbieri, E. Drioli, <u>E. TOCCI</u> Istituto per la Tecnologia delle Membrane (ITM-CNR), Italy <i>A Molecular Investigation of Gas Mixture in Thermally-Rearranged Polymeric Membranes</i>	
12:30 - 13:40	Lunch (1 hour 10 mins)		
	<b>Bugis Grand Ball Room I</b>	<b>Bugis Grand Ball Room II</b>	
	<b>Session K: Wastewater Treatment</b> Session Chair and Co-Chair: Prof. Fauzi ISMAIL and Prof. David STUCKEY	<b>Session L: Membrane for Water Treatment &amp; Desalination III</b> Session Chair and Co-Chair: Prof. Hideto MATSUYAMA and Prof. Davide MATTIA	
13:40 - 14:05	Keynote Lecture K1 Prof. Fauzi ISMAIL Universiti Teknologi Malaysia, Malaysia Authors: A.F. Ismail, Mohd Hafiz Dzarfan Othman, Norafiqah Ismail, Mukhlis A Rahman Juhana Jaafar and Goh Pei Sean <i>Recent Advances in Membrane Research for Water and Wastewater Treatment in AMTEC, UTM</i>	Keynote Lecture L1 Prof. Hideto MATSUYAMA Kobe University, Japan Authors: D.Saeki, T.Takai, H. Matsuyama <i>Development of Biomimetic Forward Osmosis Membranes Using Biological Water Channel Molecules onto Alkylated Porous Alumina</i>	
14:05 - 14:30	Keynote Lecture K2 Prof. David STUCKEY Imperial College London, UK Authors: Stuckey, D.C., Zhou Z., and Zhou Q <i>Fouling in Anaerobic Membrane Bioreactors-recent Progress</i>	Keynote Lecture L2 Prof. Davide MATTIA University of Bath, UK <i>Permeability in Nanotube Membranes</i>	
14:30 - 14:50	Oral K3 <u>B. DÜPPENBECKER</u> , M. Engelhart, P. Cornel Institute IWAR, Germany <i>Fluidized Glass Beads Reduce Fouling in Anaerobic Membrane Bioreactor: Identification of Optimum Operating Parameters and Suitable Ceramic Membranes</i>	Oral L3 <u>G. NAIDU</u> , S. Jeong, S. Vigneswaran University of Technology, Sydney (UTS) Australia <i>Membrane Distillation (MD) For Seawater Reverse Osmosis (SWRO) Brine Treatment and Metal Recovery</i>	
14:50 - 15:10	Oral K4 <u>Jinsong ZHANG</u> , Melvin Tang, Jerry Liu Citic Environtech, Singapore <i>Application Experience of Large-Scale &amp; Underground MBR with Memstar® TIPS PVDF Hollow Fiber Membrane</i>	Oral L4 <u>Qianhong SHE</u> , Frrukh Siddiqui, Rong Wang, Robert W. Field, Anthony G. Fane The University of Sydney <i>Comparison of Membrane Fouling between Forward Osmosis and Reverse Osmosis</i>	
15:10 - 15:30	Oral K5 <u>X. YANG</u> , M Duke Victoria University, Australia <i>Membrane Distillation for Resource Recovery from Waste Water</i>	Oral L5 <u>A. GIWA</u> , W. Fang, S.M. Jung, J. Kong, and S.W. Hasan, Masdar Institute of Science and Technology <i>The Selectivity of Nanoporous Inorganic Membranes for Residual Contaminants in Treated Wastewater Effluent: The Comparative Effects of MnO2 and TiO2</i>	
15:30 - 16:00	Coffee Break (30 mins)		
16:00 - 17:00	<b>Closing Lecture</b> Prof. Gary AMY National University of Singapore, Singapore Authors: Gary Amy, Zhenyu Li, Rodrigo Villadares, Johannes (Hans) Vrouwenvelder, Noredidine Ghaffour, Tai-Shung (Neal) Chung <i>Forward Osmosis (FO): Advances in Membranes, Draw Solutions, Process Engineering, Hybrids, and Niches/Applications</i> <b>Student Best Poster Award</b> <b>Closing Speech</b> Prof. Rong WANG and Prof. Susana LUQUE		