



IWA Regional Conference on Water Reuse and Energy 2014

21-24 October, 2014 | Daegu, Korea

WORKSHOP PROGRAM (DAILY)

Session Num.	Session Title & Brief Discription
W1	TBA
	TBA
W2	New Desalination Technology - Global MVP
	Development of Technology for Desalination using MD and PRO Processes
W3	Current Status of monitoring and control of emerging micropollutants in water
	Monitoring and Analysis of Micropollutants in water
	Fate and behavior of Micropollutants in water
	Control and Treatment of Micropollutants in water Status of Regulation
W4	LID and green infrastructure for restoration of urban water cycle and climate change countermeasure
	Researchers from different countries introduce application cases, policies and regulations of Low Impact Development and green infrastructure in each country and present environmental effect of LID
W5	Monitoring and Management of Cyanobacterial Bloom
	Researchers from different countries introduce the status of algal bloom and related policy and regulations in each country and present their results about how they monitor, control, and manage it.
W6	Effective Measurement of Drinking Water Treatment Facility on Green Algae Blooming
	Researchers from different countries introduce the status of effective measurement of drinking water treatment facility and present their results about control and removal of odor substances
W7 & W8	Anaerobic membrane bioreactor: Water, Energy and Nutrients
	Anaerobic bioreactor, membrane technology, energy production, nutrient removal, water qualities
W9	Nutrients Removal and Fouling Mitigation
	- Removal of Nutrient by Catalyst
	- Numerical Analysis of MBR module and Reactor
	- Treatment of RO Brine by Biosorption

WORKSHOP 1 (13:00~14:50)

Day 2 (October 22nd, Wednesday)

Room : 324

TBA

Workshop 2 (15:10~16:50)

Day 2 (October 22nd, Wednesday)

Room : 324

New Desalination Technology - Global MVP

- Development of Technology for Desalination using MD and PRO Processes

15:10-15:30 Understanding Energy and Exergy Efficiencies for Membrane Distillation

Keynote [Sangho Lee](#)
(Kookmin University, Korea)

15:30-15:50 Wetting Phenomenon In Direct Contact Membrane Distillation (DCMD) Process

[Youngmin Kim](#)
(Korea Institute of Civil Engineering and Building Tehcnology, Korea)

15:50-16:10 Development of a Novel PRO-RO Hybrid Desalination System – Current Status and Future Prospects

[Dongik Kim](#)
(GS Engineering & Construction, Korea)

16:10-16:30 Modelling and Simulation of SWRO/MD process for desalination

[Yong-Jun Choi](#)
(GMVP Research Center, Korea)

16:30-16:50 Membrane fouling and fouling reduction in treatment of seawater brine using Direct Contact Membrane Distillation

[Taemin Lee](#)
(Kyungnam University, Korea)

Workshop 3 (17:10~18:40)

Day 2 (October 22nd, Wednesday)

Room : 324

Current Status of monitoring and control of emerging micropollutants in water

1. Monitoring and Analysis of Micropollutants in water
2. Fate and behavior of Micropollutants in water
3. Control and Treatment of Micropollutants in water

17:10-17:40 Evaluating the Occurrence, Fate, and Health Relevance of Chemicals in Water

Keynote [Shane Snyder](#)
(University of Arizona, USA)

17:40-18:00 The fates and characteristic distribution of emerging contaminants in Korean water environment

[Jungen Oh](#)
(Pusan National University, Korea)

18:00-18:20 Reflection of PPCPs issues, especially in Korea

[Jaeweon Cho](#)
(Yonsei University, Korea)

18:20-18:40 Occurrence & Removal Mechanism of Selected Micropollutants in the Water Treatment Process

[Kyung-Duk Zoh](#)
(Seoul National University, Korea)

WORKSHOP 4 (10:00~11:40)

Day 3 (October 23rd, Thursday)

Room : 324

LID and green infrastructure for restoration of urban water cycle and climate change countermeasure

- Researchers from different countries introduce application cases, policies and regulations of Low Impact Development and green infrastructure in each country and present environmental effect of LID

10:00-10:20 Developing Effective LID Regulations & Standards

[Steven Trinkaus](#)

(Principal of Trinkaus Engineering, USA)

10:20-10:40 Regulations and applications of LID technologies in Scotland

[Brian James D'Arcy](#)

(Abertay Univeresity, Chair of Scottish Green Infrastructure Forum, Scotland)

10:40-11:00 Applications and regulations of LID in Korea

[Kyoung-Hak Hyun](#)

(Land & Housing Institute, Korea)

11:00-11:20 Environmental effect of LID in Korea

[Lee-Hyung Kim](#)

(Kongju National University, Korea)

11:20-11:40 Panel Discussion

[Dr. Byung Kook Lee](#) (Korea Environment Institute, Korea) [Prof. Hyun-Suk Shin](#) (Busan National Univeresity, Korea), [Dr. Mi-Hong Lee](#) (Land & Housing Institute, Korea), [Dr. Ree-ho Kim](#) (Korea Institute of Civil Engineering and Building Technology, Korea)

WORKSHOP 5 (13:10~14:50)

Day 3 (October 23rd, Thursday)

Room : 324

Monitoring and Management of Cyanobacterial Bloom

- Researchers from different countries introduce the status of algal bloom and related policy and regulations in each country and present their results about how they monitor, control, and manage it.

13:10-13:30 Long-term monitoring of algal bloom in Nakdong River, Korea

[Gea-Jae Joo](#)

(Pusan National University, Korea)

13:30-13:50 Eco-physiological approaches in cyanobacterial bloom mechanism study and application

[Lirong Song](#)

(Chinese Academy of Sciences, China)

13:50-14:10 Cyanobacterial blooms in Portugal and challenges in policy and regulations in Europe: a changing scenario

[Vitor Vasconcelos](#)

(Porto University, Portugal)

14:10-14:30 Integrative cyanobacterial DNA microarray for the harmful algal bloom in Korean freshwater

[Hee-Mock Oh](#)

(Kor. Res. Inst. Biosci. Biotech, Korea)

14:30-14:50 Harmful Cyanobacterial Blooms in US: Integrative Approach for Protecting Public Health

[Jiyoung Lee](#)

(Ohio State University, USA)

WORKSHOP 6 (15:10~16:30)

Day 3 (October 23rd, Thursday)

Room : 324

Effective Measurement of Drinking Water Treatment Facility on Green Algae Blooming

- Researchers from different countries introduce the status of effective measurement of drinking water treatment facility and present their results about control and removal of odor substances

- 15:10-15:25 N-DBP effect and mitigation of algae effect using multiple barrier system in water treatment plant
[Seok Dockko](#)
(Dankook University, Korea)
- 15:25-15:40 Effects of taste and odor compounds in drinking water treatment
[Seongho Hong](#)
(Soongsil University, Korea)
- 15:40-15:55 History and current status of Algal Bloom in Lake Biwa
[Kazuhide HAYAKAWA](#)
(Lake Biwa Environment Research Institute, Japan)
- 15:55-16:10 Application of an unmanned surface vessel with ultrasonic, environmentally friendly system to control blue-green algae
[Wesley Boenne](#)
(VITO NV Institute, Belgium)
- 16:10~10:30 Plan of Water Treatment Plant Operation for Blue Green Algae Blooming in KOREA
[Sang-hyup Lee](#)
(Korea Institute of Science and Technology, Korea)

WORKSHOP 7 (16:50~18:10)

Day 3 (October 23rd, Thursday)

Room : 324

Anaerobic membrane bioreactor: Water, Energy and Nutrients

- Anaerobic bioreactor, membrane technology, energy production, nutrient removal, water qualities

- 16:50-17:05 The composition and properties of soluble microbial products (SMPs) and colloids in a submerged anaerobic
[David Stuckey](#)
(Imperial College London, United Kingdom)
- 17:05-17:20 Operation of anaerobic fluidized bed reactor using zeolite as carrier for treating low strength wastewater under
[Jingyu Lin](#)
(National Chiatung University, Taiwan)
- 17:20-17:35 Performance of AnMBR with different pore-sized ceramic membranes for the treatment of domestic wastewater
[How Yong Ng](#)
(National University of Singapore, Singapore)
- 17:35-17:50 Control of dissolved methane and nutrients in anaerobic membrane bioreactors (AnMBRs)
[Hyungsool Lee](#)
(University of Waterloo, Canada)
- 17:50~18:10 Comparison between anaerobic and aerobic membrane bioreactors: Energy and resource recovery
[Kwang-Ho Choo](#)
(Kyungpook National University, Korea)

WORKSHOP 8 (10:00~11:40)

Day 4 (October 24th, Friday)

Room : 324

Anaerobic membrane bioreactor: Water, Energy and Nutrients

- Anaerobic bioreactor, membrane technology, energy production, nutrient removal, water qualities

TBA

WORKSHOP 9 (13:00~14:50)

Day 4 (October 24th, Friday)

Room : 324

Nutrients Removal and Fouling Mitigation

- Removal of Nutrient by Catalyst

13:10-13:30 Effect of Operating Parameters on Crystallization Mechanisms in Membrane Crystallization Process

[Jinsik Sohn](#)

(Kookmin University, Korea)

13:30-13:50 Inhibition of substrate uptake by adsorption of total dissolved solids on microbial surface PSs

[HyunJong Joo](#)

(Kyonggi University, Korea)

13:50-14:10 Catalytic reduction of nitrite in water over CeO₂-ZrO₂ supported Pd catalysts

[Jiyeon Lee](#)

(Korea University, Korea)

14:10-14:30 PVdFnanofiber composite membrane with Graphene oxide for MF application and its Arsenic removal

[SikByun Hong](#)

(Keimyung University, Korea)

14:30-14:50 A Numerical Study for Fluid Phenomena in the Submerged Flat Membrane Bioreactor

[DaeChun Kim](#)

(Seoul National University, Korea)