

APRU SWM Virtual Winter School

January to February 2021

January 12th (Tuesday, Korea) / 11th (Monday, California time)

Session: Wastewater Treatment and Recycling

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| APRU SWM Plenary Speakers (Chair: Yong Sik Ok, Korea University, Korea) | | |
| 4:00 PM ~ 4:50 PM (California time) | Prof. William Mitch Stanford University, USA | RO and FO/RO for Centralized and Decentralized Potable Reuse Applications |
| APRU SWM Student Presentations (Chair: Prof. William Mitch, Stanford University, USA) | | |
| 4:50 PM ~ 5:05 PM | Jessica MacDonald Stanford University, USA | Linking Mainstream Anaerobic Secondary Treatment to Wastewater Reuse Trains |
| 5:05 PM ~ 5:20 PM | Kumuduni Niroshika Plansooriya Korea University, Korea | Occurrence of Contaminants in Drinking Water Sources and the Potential of Biochar for Water Quality Improvement |
| 5:20 PM ~ 5:35 PM | Jack King Stanford University, USA | GAC-Based Cathodes for The Capture and Degradation of Halogenated Contaminants in RO Concentrate or Stormwater |
| 5:40 PM ~ 6:00 PM | Live Q & A and Panel Discussion Session Chair: Prof. Yong Sik Ok, Korea University, Korea Prof. William Mitch, Stanford University, USA Panelist: Prof. Chia-Hung Hou, National Taiwan University, Taiwan Prof. Ali Abbas, The University of Sydney, Australia | |

January 26th (Tuesday) (KST)

Session: APRU SWM's 2nd Forum on Plastics and Sustainability

| Time | Presenter | Topic |
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| APRU SWM Plenary Speakers (Chair: Yong Sik Ok, Korea University, Korea) | | |
| 2:00 PM ~ 2:20 PM | Prof. Cheng Gu Nanjing University, China | Aging of Microplastics and the Effects on the Environmental Behaviors of Contaminants in Aquatic Environments |
| 2:20 PM ~ 2:40 PM | Prof. Defu He East China Normal University, China | Microplastics in Terrestrial Environments |
| 2:40 PM ~ 3:00 PM | Prof. Sutha Khaodhir Chulalongkorn University, Thailand | Materials Flow Analysis to Promote Circular Economy Development: A Case Study on Post-Industrial Plastic Waste in Thailand |
| APRU SWM Student Presentations (Chair: Prof. Cheng Gu, Nanjing University, China) | | |

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| 3:00 PM ~ 3:15 PM | Yoora Cho Korea University, Korea | Microplastics as Emerging Contaminants in the Environment |
| 3:15 PM ~ 3:30 PM | Chao Wang, Nanjing University, China | Enhanced Alteration of Poly(vinyl chloride) Microplastics by Hydrated Electrons Derived from Indole-3-acetic acid Assisted by a Common Cationic Surfactant |
| 3:30 PM ~ 3:45 PM | Virin Kittithammavong, Chulalongkorn University, Thailand | Overview of Municipal Waste Characterization and Analysis in Thailand |
| 3:45 PM ~ 4:00 PM | Live Q & A and Panel Discussion Session Chair: Prof. Yong Sik Ok, Korea University, Korea Panelists: Prof. Cheng Gu, Nanjing University, China Prof. Defu He, East China Normal University, China Prof. Sutha Khaodhir Chulalongkorn University, Thailand Prof. Xiaonan Wang, National University of Singapore, Singapore | |

February 23rd (Tuesday) (KST)

Session: Biochar for Sustainable Development

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| APRU SWM Plenary Speakers (Chair: Yong Sik Ok, Korea University, Korea) | | |
| 2:00 PM ~ 2:20 PM | Prof. Xiaonan Wang National University of Singapore, Singapore | AI And Machine Learning Methods in Sustainable Environment and Waste Management |
| 2:20 PM ~ 2:40 PM | Prof. Hwai Chyuan Ong University of Technology Sydney, Australia | Bioformulation of Biochar as a Potential Inoculant Carrier for Sustainable Agriculture |
| APRU SWM Student Presentations (Chair: Prof. Xiaonan Wang, National University of Singapore, Singapore) | | |
| 2:40 PM ~ 2:55 PM | Shuang Song E2S2-CREATE program, National University of Singapore, Singapore | Biochar for Urban Agriculture: Impacts on Soil Chemical Characteristics and on Vegetable Growth, Nutrient Content and Metabolism Over Multiple Growth Cycles |
| 2:55 PM ~ 3:10 PM | Manu Suvarna National University of Singapore, Singapore | Machine Learning Framework for Biochar Design with Pre-Determined CO ₂ Adsorption |
| 3:10 PM ~ 3:25 PM | Li Lanyu National University of Singapore, Singapore | Optimal Design of Negative Emission Hybrid Renewable Energy Systems with Biochar Production |
| 3:25 PM ~ 4:00 PM | Live Q & A and Panel Discussion Session Chair: Prof. Yong Sik Ok, Korea University, Korea Prof. Xiaonan Wang, National University of Singapore, Singapore | |

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| | <p>Panelists: Prof. Hwai Chyuan Ong University of Technology Sydney, Australia</p> |
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Chair



Prof. Yong Sik Ok (Highly Cited Researcher)

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Speakers

Wastewater treatment and recycling



Prof. William Mitch

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Plastics and sustainability



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Biochar for sustainable development



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