### Engineering Sustainable Development 2019: Technical and Engineering Challenges of Addressing Sustainable Development

**December 12-13, 2019 | Korea University, Seoul, South Korea**

**Preliminary Schedule - as of 11/20/2019**

#### Thursday, December 12, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:30 AM</td>
<td>Registration</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Opening Ceremony</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Plenary Session I</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>Lunch &amp; Meet the Editors</td>
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<tr>
<td>1:00 PM</td>
<td>Parallel Session 1 - Sustainable Energy I</td>
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<tr>
<td>3:00 PM</td>
<td>Parallel Session 2 - Water Sustainability and Security</td>
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<tr>
<td>6:00 PM</td>
<td>Parallel Session 1A - Economic, Social, Climatic and Environmental Issues I</td>
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<tr>
<td>6:30 PM</td>
<td>Ticketed Dinner</td>
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**Talk: 2D and 3D Nanostructuring Strategies for Thermoelectric Materials**

Invited Talk: S88203: Seokwoon Jeon, KAIST, Korea, Republic of (South): Invited Talks: 2D and 3D Nanostructuring Strategies for Thermoelectric Materials

Invited Talk: S87672: Sang Hyuk Im, Korea University, Korea, Republic of (South): Invited Talk: Metal Halide Perovskite Optoelectronic Devices

Selected Talk: S88362: Brian Kolodji, Black Swan, LLC, USA: Accelerating Carbon Neutrality with Sustainable Biomass Cycle

Selected Talk: S88371: Nanthi Bolan, University of Newcastle, Australia: Microplastics: ALL That Glitters IS NOT Gold

Selected Talk: S88376: Na Ye, Xian Jiaotong University, China: Design the Bimetallic PdCu/Rgo Electrocatalysts for Methanol Oxidation Reaction in Alkaline Media By Tuning the Electronic Structure

#### Coffee Break

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>3:30 PM</td>
<td>Parallel Session 2 - Water Sustainability and Security</td>
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<tr>
<td>5:00 PM</td>
<td>Parallel Session 2A - Sustainable Energy II</td>
</tr>
</tbody>
</table>

Invited Talk: S88146: Daniel Alesi, University of Alberta, Canada: Invited Talk: Sustainability of Water Management Practices in Hydraulic Fracturing

Invited Talk: S88367: Deyi Hou, Tsinghua University, China: Invited Talk: Green and Sustainable Remediation of Contaminated Groundwater: Links to Sustainable Development Goals

Invited Talk: S88366: Dengguo Lai, Institute of Urban Environment, Chinese Academy of Sciences, China: Flexible Polyvinyl Alcohol/Reduced Graphene Oxide Coated Carbon Composites for Electromagnetic Interference Shielding

Selected Talk: S88371: Nanthi Bolan, University of Newcastle, Australia: Microplastics: ALL That Glitters IS NOT Gold

Selected Talk: S88376: Na Ye, Xian Jiaotong University, China: Design the Bimetallic PdCu/Rgo Electrocatalysts for Methanol Oxidation Reaction in Alkaline Media By Tuning the Electronic Structure

Selected Short Talk: S88371: Nanthi Bolan, University of Newcastle, Australia: Microplastics: ALL That Glitters IS NOT Gold

Selected Short Talk: S88376: Na Ye, Xian Jiaotong University, China: Design the Bimetallic PdCu/Rgo Electrocatalysts for Methanol Oxidation Reaction in Alkaline Media By Tuning the Electronic Structure

#### Rapid Fire Session

**Selected Short Talk: S82359: An Liu, Shenzhen University, China: Inadequacy of Using Individual Pollutants to Assess Comprehensive Hazard Effects of Road Depositioned Sediments: Implications for Stormwater Reuse Safety**

Selected Short Talk: S82360: Zainelabdin Elfaki, Alayuni Group, Saudi Arabia: Reinforcement of Concrete Block with Marble Waste

Selected Short Talk: S82361: M.Ajaz Ahmad, Seoul National University, Korea, Republic of (South): Does the Market Respond to a Firm’s Green Technology?

Selected Short Talk: S82363: Nanthi Bolan, University of Newcastle, Australia: Microplastics: ALL That Glitters IS NOT Gold

Selected Short Talk: S82364: Na Ye, Xian Jiaotong University, China: Design the Bimetallic PdCu/Rgo Electrocatalysts for Methanol Oxidation Reaction in Alkaline Media By Tuning the Electronic Structure

Selected Short Talk: S82365: Xuejiao Liu, Institute of Urban Environment, Singapore: Deplete the Unsatuated Fatty Acid Fraction from Palm Biodiesel Fuel with AgNO3 Solvent

#### Ticketed Dinner
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors/Institutions</th>
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</thead>
<tbody>
<tr>
<td>10:30 AM</td>
<td>Parallel Session 3 - Sustainable Energy III</td>
<td>Invited Talk: 588209: Hankwon Lim, UNIST, Korea, Republic of (South):</td>
<td>Invited Talk: 587807: Jeffery R. Seay, University of Kentucky, USA: 1 PM</td>
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<tr>
<td>1:00 PM</td>
<td>Lunch</td>
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<tr>
<td>2:30 PM</td>
<td>Coffee Break</td>
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Parallel Session 5 - Economic, Social, Climatic and Environmental Issues II

- Invited Talk: 582843: Metththika Vithanage, Ecosphere Resilience Research Center, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka: Invited Talk: Biochar As a Support for Triumphing Sustainable Development Goals
- Invited Talk: 587224: Chi‐Hwa Wang, National University of Singapore, Singapore: Invited Talk: Geopolimerisation Using Coal Fly Ash and Wood Fly Ash with Internal and External Alkali Sources
- Selected Talk: 582631: Ricky Saputra, Taylor's University Lakeside Campus, Malaysia: Optimization of Process Parameters in Thermosonic Devulcanization of Waste Crumb Rubber Tires By Novel Ternary Eutectic Solvents
- Selected Talk: 587707: Xiao Tan, School of Chemical Engineering and Technology, China: Highly Active and Stable Bimetallic RhFe/HAP Catalyst for Direct and Non‐Thermal Plasma Synergistic Catalysis of N2O Decomposition
- Selected Talk: 587302: Haitong Wang, Foshan University, China: Effect of Feedstock Biomasses on the Efficacy of Biochars in Immobilization of Soil Contaminants
- Selected Short Talk: 583019: Minghe Sun, City university of Hong Kong, Hong Kong: Transition Metal Species Contained SSZ‐13 Zeolites for Low Temperature NOx Removal
- Selected Short Talk: 587854: Ankit Verma, Rajiv Gandhi Institute of Petroleum Technology, India: Utilization of Foot Controlled Pedals to Spare Water and Counteract Disease

Parallel Session 5A - Water Sustainability and Security II

- Invited Talk: 588156: Jeonghun Kim, Kookmin University, Korea, Republic of (South): Invited Talk: Design and Synthesis of Nanoporous Materials for Water Treatment Clean Technology
- Invited Talk: 587965: Jung‐Hyun Lee, Korea University, Korea, Republic of (South): Invited Talk: Advanced Membranes for Desalination and Water Treatment
- Selected Talk: 584674: Hai Duy Nguyen, Institute of Environmental Engineering, National Central University, Taiwan: Adsorption of Methylene Blue, Copper, and Cadmium Onto Activated Carbon Prepared From Hydrothermal Carbonization of Teak (Tectona grandis) Sawdust
- Selected Talk: 586116: Dewandra Bagus Eka Putra, Universitas Islam Riau, Indonesia: Groundwater Study in Coastal Region: Hydrogeology and Geochemical Characteristic of an Island in Malacca Strait, Indonesia
- Selected Talk: 584939: Hocheol Song, Sejong University, Korea, Republic of (South): Catalytic Reduction of P‐Nitrophenol Using Engineered Biochar Fabricated From CO2‐Assisted Pyrolysis of Cobalt‐Loaded Coffee Ground, and the Effect of CO2to Carbon Distribution in Pyrolysates
- Selected Short Talk: 585803: M.S. Vivek,, SSN College of Engineering, Rajiv Gandhi Salai (OMR), Kalavakkam, Tamilnadu‐603110., India: Green Engineering Studies on Potential Solvent for the Removal of Endocrine Disrupts Chemicals from Water Matrices: A COSMO‐RS Model Based Approach
- Selected Short Talk: 584774: Roent D. A. Cayetano, Yonsei University, Korea, Republic of (South): Anaerobic Digestion of Waste Activated Sludge Using Dynamic Membrane
- Selected Short Talk: 587854: Ankit Verma, Rajiv Gandhi Institute of Petroleum Technology, India: Utilization of Foot Controlled Pedals to Spare Water and Counteract Disease

Posters:

- 581010: Mohmed Noureldien, University of Khartoum, Sudan. Prediction of Pesticides Residues Quantities in a Proposed Food and Suggestion of Suitable Utilization for Pesticides in a Long‐Term Usage
- 582709: Shelby Browning, University of Kentucky College of Engineering, USA. A Study of the Physical Properties of Plastic Derived Fuel Oil Produced From Waste Plastic
- 582755: David Jadbarovski, retired engineer, Israel. About Typical Mistakes of Ideas to Collect and Even to Sort the Waste Plastic
- 584624: Mohammed Alsuailaimi, King Fahd University of Petroleum & Minerals, Saudi Arabia. Switchable Crude Oil/Water Emulsions Stabilized By Rhamnolipid Biosurfactant
- 584678: Mahmol Aljehani, TKM college of engineering, India. ZINC OXIDE Coated Regenerated Spent FCC Catalyst for Water Purification
- 584719: Vaibhav Bhagat, Vellore Institute of Technology, Vellore, India. Alternative Solvents for Monoethanolamine for Carbon Dioxide Capture
- 584737: Rohan Damani, VIT, Vellore, India. Study on Liquid Storage of Solar Energy
- 584740: Mohammed T. Islam, Bangladesh University of Engineering and Technology, Bangladesh. Torrefaction of Biomass (Rice Husk): Effect of Temperature and Time
- 584763: Fang Shubo, hebei university of science & technology, China. Hydrophobic Deep Eutectic Solvents and Their Applications
- 584767: Mohammed Salih, TKM college of engineering, India. Adsorption of Methylene Blue, Copper, and Cadmium Onto Activated Carbon Prepared From Hydrothermal Carbonization of Teak (Tectona grandis) Sawdust
- 587965: Jung‐Hyun Lee, Korea University, Korea, Republic of (South): Invited Talk: Advanced Membranes for Desalination and Water Treatment

Selected Short Talk: 588235: Atish Mehta, Indian Institute of Technology, New Delhi, India: Nanotechnology Applications in Environmental Engineering

Selected Talk: 586116: Dewandra Bagus Eka Putra, Universitas Islam Riau, Indonesia: Groundwater Study in Coastal Region: Hydrogeology and Geochemical Characteristic of an Island in Malacca Strait, Indonesia

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