

Day 4

Innovation and Challenges in Water and Environmental Engineering Jan 16, 2026

09:50–10:00 **Introductory Comments & Welcoming Address**

Session 1 : Water and Environmental Engineering I

Chair: Donghwi Jung

- 10:00–10:30 **Flood Risk Management Using AI-CCTV**
Donghwi Jung, Jinyong Kim, Sohee Kim
(Professor•Research Engineer•Integrated Master-Doctoral Student, Korea University, South Korea)
- 10:30–11:00 **Flood Warning in Thailand: Current Situation and Research**
Chaiwat Ekkawatpanit (Professor, King Mongkut's University of Technology Thonburi, Thailand)
- 11:00–11:30 **Hydro-Informatics in Indonesia: An Academic Perspective**
Hadi Kardhana (Professor, Institut Teknologi Bandung, Indonesia)
- 11:30–12:00 QNA Session
- 12:00–13:30 Lunch

Session 2 : Water and Environmental Engineering II

Chair: Chulsang Yoo

- 13:30–14:00 **Forensic Investigation of Incidents in Embankment Dams**
DongSoon Park (Head Researcher, K-water Research Institute, South Korea)
- 14:00–14:30 **Baseflow Separation and Prediction Using Machine Learning**
Dagang Wang (Professor, Sun Yat-sen University, China)
- 14:30–15:00 **Climate Change and its Impacts on the Large Reservoir Systems**
Subbarao Pichuka (Professor, Indian Institute of Technology Madras, India)
- 15:00–15:30 **Forensic Engineering of Urban Flash Floods in Sylhet: Causes, Impacts, and Data-Driven Mitigation**
Shabbir Ahmed Osmani (Professor, Leading University, Bangladesh)
- 15:30–16:00 Break

Session 3 : Water and Environmental Engineering III

Chair: Changhyun Jun

- 16:00–16:30 **From Pixels to Intelligence: AI-Driven Hydrological Insight for Flood, Drought, and Ecosystem Resilience**
Changhyun Jun (Professor, Korea University, South Korea)
- 16:30–17:00 **System Dynamics Modeling for Water/Transportation Carbon Emissions and Energy Consumption**
Yan Zheng (Professor, Nanjing Forestry University, China)
- 17:00–17:30 **Innovating Open-Source Hydrological Modeling: Streamflow Simulation and Reservoir Operations in the Nam Mu River Basin, Vietnam**
Thi Thuy Ngo (Senior Researcher, IMHEN, Vietnam)