



THEMATIC SESSION 2C

Digital technologies for water management and operation

🕒 14:00-15:30, 25 September 2024, Wednesday
📍 Beijing International Convention Center, Room 201#-CD

Water projects, including reservoirs, dikes, sluices, pump stations, and water-diversion projects, are facing many external and internal threats such as aging, increasing human activities in the vicinity, terrorism, climate change, flooding, water quality, sedimentation, etc. Management and operation of water projects are vital which related to structural safety, water safety, climate change prevention, blue bio economy, etc. This session aims to sharing and promoting modern approaches and practical solutions using digital technologies for water management and operation.

The Objectives of this session include:

- (1) Creating a common understanding of development trends on digital technologies by sharing research results and experiences on water management and operation.
- (2) Sharing current practices and case studies on intelligent monitoring, warning, forecasting, optimization and decision support systems for water management and operation.
- (3) Discussing advanced calculation methods, machine learning and the use of artificial intelligence for water management and operation.
- (4) Finding opportunities of collaboration between government, research institutions, management and operation agencies, and market-based practitioners to promote modern approaches and practical solutions for better water management and operation.

Expected outcomes are the followings;

General expected outcome is to exchange information and knowledge on developing and using digital technologies to ensure longevity of existing water projects, to exchange new concepts, international experience, best practices and know-how on improving water management and operation.

ORGANIZER(S): Dam Safety Management Center, MWR ; Nanjing Hydraulic Research Institute

PROGRAM

14:00-14:08	Opening	Moderator:
14:00-14:03	Welcome remarks and introduction of speakers	Hongen LI , Prof. /Division Director, Dam Safety Management Center, MWR, PRC
14:03-14:08	Opening address	Liuyan LIU , Director-general, Dam Safety Management Center, MWR, PRC
14:08-15:22	Presentation	Moderator: Thanapon Piman, Hongen LI
14:08-14:20	Presentation	Hongen LI : Matrix Management for Safety Operation of Reservoir Dams
14:20-14:32	Presentation	Jingon Kim : Digital Twin Water Management Platform Technology: An Innovative Approach for Optimal Water Management
14:32-14:44	Presentation	Thanapon Piman : Promoting digital solutions and climate smart technologies for agriculture water management at local rice farming level
14:44-15:00	Presentation	Wenan HOU : Design and Application of Intelligent Q&A System for Reservoir Safety Management
15:00-15:12	Presentation	Rabia Dars : Sustainable Groundwater Management: A Comparative Study of Taluka Hala, Sindh, Pakistan, and Henan, North China Plain, Focusing on Climatic Variations, Human Activities impacts of dynamic groundwater
15:12-15:24	Presentation	Ai Sher : Dealing with Non-Revenue Water (NRW) in addressing Water Scarcity: SCADA and IoT involvement in the context of Malaysia's Water Authority
15:24-15:30	Conclusion	Moderator: Hongen LI
15:24-15:30	Closing remarks	Thanapon Piman, Senior Research Fellow, Stockholm Environment Institute

For more information about the 3rd Asia International Water Week, please visit <https://3-aiww.scimeeting.cn>.