



THEMATIC SESSION 3A

Defense against catchment extreme flood disaster under the influence of climate change

🕒 14:00-15:30, 24 September 2024, Tuesday
📍 Beijing International Convention Center, Room 305#

Floods are one of the most destructive natural disasters, with more than 23% of the world's population directly exposed. A recent report by WMO shows that during 1970-2019, 44% of all reported disasters and 33% of the economic damages were caused by flooding. Climate change is expected to intensify extreme hydro-climatic events further in the near future. Most of the world's highly populated regions will experience an increase in the magnitude of extreme flood events. Vulnerable groups of people are disproportionately affected, and it is very important to devise appropriate measures for sufficient protection against floods. Flood management and adaptation strategies should be inclusive of early warning systems, flood protection infrastructure, nature-based solutions, social protection and risk financing schemes. These measures should avoid maladaptation, promote sustainability, and minimize environmental impacts. In light of these challenges, this session will focus on the integration of traditional and innovative flood management approaches, with an emphasis on the impacts of climate change, the role of technology, and adaptive strategies for future resilience.

This session aims to bring the experts and practitioners together to share knowledge and discuss the various adaptation practices for flood management under climate change.

SUB-THEME: Water Disasters and Climate Change

ORGANIZER(S): Asian Institute of Technology (AIT), Thailand; Yellow River Institute of Hydraulic Research (YRIHR), China; and Huaihe River Conservancy Commission (HRCC), China

PROGRAM

14:00-14:15	Opening	Moderator: Zhang Qunbo
14:00-14:04	Welcome remarks and introduction of session	Mukand Babel: Professor, Asian Institute of Technology (AIT), Thailand
14:04-14:07	Opening address	Ma Yonglai: Vice president, Yellow River Conservancy Commission (YRCC)
14:07-14:10	Opening address	Xu Jing: Vice president, Huaihe River Conservancy Commission (HRCC)
14:10-14:15	Sign cooperation agreement and Group Photo	
14:15-14:45	Research Presentations	Moderator: Zhang Qunbo
14:15-14:25	Yellow River basin autumn flood prevention in 2021	Wei Xiangyang: Yellow River Conservancy Commission (YRCC), China
14:25-14:35	Huaihe River basin flood prevention in 2020	Wang Kai: Huaihe River Conservancy Commission (HRCC), China
14:35-14:45	Intensified projected hydrological processes in the Three-River headwater region, Qinghai Tibetan Plateau, under climate change	Rashid Mahmood: Senior Research Specialist, Asian Institute of Technology (AIT), Thailand
14:45-15:25	Research Presentations	Moderator: Dibesh Khadka
14:45-15:55	The key technology of Yellow River flood prevention based on the linkage of “three rivers” (real, digital and physical model of Yellow River)	Yu Xin: Director, Yellow River Institute of Hydraulic Research, China
15:55-15:05	Defense Against Catchment Extreme Flood Disaster Under the Influence of Climate in South Asia with particular reference to Pakistan on Nature Based Solutions (NBS)	Muhammad Aslam Khan: President, Rural Development Foundation, Pakistan
15:05-15:15	An attention-mechanism-based convolutional and sequential model for improving radar quantitative precipitation estimation	Wei Jiahua: Professor, Tsinghua University & Qinghai University, China
15:15-15:25	Development of a physics-based rainfall-sediment-wood runoff (RSR) model and its application to flood disasters and sediment runoff from a basin	Daisuke Harada: Research Specialist, International Centre for Water Hazard and Risk Management (ICHARM), Japan
15:25-15:30	Closing remarks	Moderator: Mukand Babel

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