ICWRER Special Session Proposal

2022 International Conference on Water Resources and Environment Research (ICWRER)

**Special Session Title**

***Climate change impact assessments and adaptations on water resources and water-related disasters (III)***

**Session Organizer**

**Chair**

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**Session Description**

Climate change impact assessments and adaptations on water resources and water-related disasters are urgent issue because of historically understandable extreme hazards are gradually liable to occur and bring quite serious disasters in the world such as brushes with, and direct hits from, severe tropical cyclones and frequent occurrence of strong winds, floods, inundations, storm surges, extreme ocean waves, landslides and severe droughts.

The special session named “Climate change impact assessments and adaptations on water resources and water-related disasters” was organized by us and held in previous ICWRER 2019 in Nanjing. The proposal was successfully done based on the activity under the program “Integrated Research Program for Advancing Climate Models (TOUGOU)” which also includes no-regret adaptations as important research topic. And this program will terminate by end of March 2022. The proposed session in ICWRER 2022 aims to summarize the outcomes from TOUGOU program and discuss the future research direction for the next climate change related program with wider community in the world. Therefore, discussions and suggestions from any countries over the world are welcome to this session for the impact assessments and adaptations on severe rainstorms, floods, inundations, storm surges, extreme ocean waves, landslides and severe droughts and so on.

**Presentations/speakers**

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| Speaker | Affiliation | Presentation Title |
| Tomohiro Tanaka | Graduate School of Global Environmental Studies, Kyoto University, Japantanaka.tomohiro.7c@kyoto-u.ac.jp | Robust estimates of simultaneous flood frequencies in two rivers using d4PDF and bivariate extreme value theory |
| Edward A. McBean | School of Engineering, University of Guelph, Guelph, ON, Canada N1G2W1emcbean@uoguelph.ca | Sustainability of urban drainage systems for mega cities |
| Mamunur Rashid | Department of Civil, Environmental and Construction Engineering and National Center for Integrated Coastal Research, University of Central Florida, Orlando, FL USA.md.rashid@ucf.edu | Importance of integrating consecutive dry and wet extremes in hydrologic risk assessment |
| Ahmed Nasr | Department of Civil, Environmental and Construction Engineering and National Center for Integrated Coastal Research, University of Central Florida, Orlando, FL USA.ahmed.nasr@knights.ucf.edu | Dependence between oceanographic, fluvial, and pluvial flooding drivers along the United States coastline |
| Badri Bhakta Shrestha | International Centre for Water Hazard and Risk Management (ICHARM), Public Works Research Institute (PWRI), Tsukuba, Japanshrestha@icharm.org | Quantitative assessment of flood damage to residential buildings and agricultural crops in the solo river basin of Indonesia  |