Special Session
On

Dam Operations and Safety Analysis Using Artificial Intelligence/Machine Learning and Bayesian Networks

at
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Session Organizers:

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Scope and Objectives:

Throughout the world, hundreds of aging dams are operated in situations for which they were not designed. While digitized data regarding the operational parameters and inputs affecting these dams is becoming increasingly accessible, more development is needed in improving methods for analyzing this Big Data (BD). Complex systems operations and safety analysis have been improved by progress made in Artificial Intelligence/Machine Learning and Bayesian Networks (BN). AI/ML methods produce model-free analysis of BD and BN allows for the decomposition of complex systems amenable for probabilistic analysis of failures required for safety analysis. This session invites papers in these broader areas of operations and safety analysis of dams affected by multidisciplinary factors.