Special Issue

Disaster Analysis and Prevention of Dam and Slope Engineering

Message from the Guest Editors

As dam and slope infrastructures endure prolonged service periods, the progressive aging mechanism, manifested as material property degradation and cumulative environmental damage, poses an increasingly severe threat to their structural integrity. Their long-term stability and reliability are increasingly facing various challenges. Furthermore, changes in hydrological patterns have further exacerbated these risks. Therefore, a reasonable evaluation of slope stability, the implementation of suitable risk-mitigation and reinforcement measures, and the assurance of safe and stable dam operation carry immense engineering significance for hydropower generation, water resource management, and flood control. This Special Issue of the journal will focus on cutting-edge research in disaster mechanisms, risk assessment, and prevention technologies for dam and slope engineering. Topics include, but are not limited to, the following: slope stability analysis under multi-hazard scenarios, failure modes of embankment dams, resilient reinforcement materials, coupled hydro-mechanical modeling, and post-disaster recovery frameworks.

Guest Editors

Prof. Dr. Yuke Wang
School of Water Conservancy and Transportation, Zhengzhou University, Zhengzhou, China

Dr. Xiang Yu
School of Water Conservancy and Transportation, Zhengzhou University, Zhengzhou, China

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Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

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In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

Dr. Jean-Luc PROBST
Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

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