



Performance of Infrastructures under Extreme Loads and Complex Environments

Guest Editors:

Dr. Jianwen Pan

Department of Hydraulic
Engineering, School of Civil
Engineering, Tsinghua University,
Beijing 100084, China

Dr. Hui Jiang

Faculty of Architecture, Civil and
Transportation Engineering,
Beijing University of Technology,
Beijing 100124, China

Dr. Jingmao Liu

Institute of Earthquake
Engineering, Faculty of
Infrastructure Engineering,
Dalian University of Technology,
Dalian 116081, China

Deadline for manuscript
submissions:

31 July 2024

Message from the Guest Editors

Dear Colleagues,

We cordially invite you to contribute to our upcoming Special Issue, entitled “Performance of Infrastructures under Extreme Loads and Complex Environments”. This Special Issue aims to explore the performance and behaviour of infrastructures under extreme conditions and to provide new perspectives and in-depth insights for research in this field.

Extreme loads such as earthquakes, floods and explosions are devastating disasters that impose serious challenges on the safety and reliability of infrastructures. Complex environmental conditions include rainfall, freeze–thaw cycles, and droughts, and can gradually deteriorate infrastructures, leading to reduced performance and compromised security. The study of the performance and behavior of infrastructures, including dams, embankments, harbors, tunnels and bridges is of great importance in preventing and mitigating the effects of devastating hazards. We encourage authors to share their research results, experiences, and perspectives in this Special Issue to promote the development and progress of the field.



Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and
Management Program,
Department of Civil,
Architectural, and Environmental
Engineering, Illinois Institute of
Technology, 3201 South
Dearborn Street, Chicago, IL
60616, USA

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

Contact Us

Buildings Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
[X@Buildings_MDPI](https://twitter.com/Buildings_MDPI)