Special Issue

Novel Approaches for the Mitigation of Climate Change and Extreme Events Impact on Structures and Infrastructures

Message from the Guest Editors

The extraordinary challenges that climate change poses to our existing and new structures and infrastructures is a growing concern that is being widely discussed worldwide. The uncertainty in future environmental actions and the aging of existing structures and infrastructures in addition to the continuously increasing demand for resources compel us to adopt novel approaches to tackle the impact caused by climate change and extreme events. This Special Issue aims to collect ground-breaking research and novel strategies to mitigate the impact of climate change and extreme events on structures and infrastructures. In this regard, submissions underpinning the following list of topics are particularly welcomed:

- Modelling of actions induced by Climate Change and extreme events
- Multi-hazard vulnerability assessment and risk analysis
- Aging of structures and infrastructures
- Novel techniques for the repair and strengthening of existing structures and infrastructures
- Innovative approaches for structural rehabilitation
- Sustainable high-performance materials for enhanced resilience
- Novel devices for the control of existing structures

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2023)

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About the Journal

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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).