Special Issue

Reliability, Resilience and Sustainability for Construction and Infrastructure Systems

Message from the Guest Editors

We welcome original research, case studies, and review articles addressing topics including, but not limited to, the following:

- **Advanced analysis methods**: New reliability analysis methods, resilience analysis methods, and sustainability evaluation methods.
- **Structural Reliability:** Predictive maintenance, failure analysis, probabilistic risk assessment, and lifecycle performance optimization.
- **Resilience Engineering:** Adaptive design, disaster preparedness, rapid recovery strategies, and stress-testing infrastructure under extreme events.
- **Sustainable Infrastructure:** Low-carbon materials, circular economy applications, energy-efficient systems, and green infrastructure solutions.
- **Climate Adaptation and Mitigation:** Infrastructure hardening, nature-based solutions, and decarbonization strategies for resilient and sustainable systems.
- **Policy, Governance, and Socioeconomic Factors:** Regulatory frameworks, investment models, multi-stakeholder collaboration, and equity considerations in infrastructure planning.
- **Systemic Risks and Interdependencies:** Cascading failures, critical infrastructure interdependencies, and network-wide resilience optimization.

Guest Editors

Prof. Dr. Zhenhao Zhang
Dr. Yue-Ling Long
Dr. Dong Li

Deadline for manuscript submissions

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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 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).