

# Special Issue

## Emerging Technologies for Digital Transformation of Resilient Built Assets

### Message from the Guest Editors

Built assets, including buildings and infrastructure, are increasingly exposed to complex and interrelated challenges such as climate change, extreme weather events, ageing facilities, operational disruptions, and evolving user demands. Enhancing the resilience of these assets requires not only robust physical design and engineering solutions but also a fundamental digital transformation in how assets are monitored, managed, and operated throughout their lifecycle. This Special Issue aims to address these challenges by bringing together cutting-edge research on emerging technologies for the digital transformation of resilient built assets. It seeks contributions that adopt knowledge-driven approaches to enhance asset intelligence and enable resilience-oriented decision-making across the entire asset lifecycle. It welcomes contributions that explore, but are not limited to, image and point-cloud processing for digital twin construction, natural language processing for knowledge integration and fusion, real-time monitoring for asset risk control, and robotic systems enabling advanced built asset operations.

### Guest Editors

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### Deadline for manuscript submissions

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## Buildings

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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.

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### Editor-in-Chief

Prof. Dr. David Arditi

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