Special Issue

Advanced Methodologies and Technologies in Structural Modelling, Identification and Monitoring of Existing Structures—2nd Edition

Message from the Guest Editors

  It is a pleasure to announce the 2nd edition of this Special Issue "Advanced Methodologies and Technologies in Structural Modelling, Identification and Monitoring of Existing Structures". Both methodologies and technological advancements are welcome, as well as specific laboratory or in situ experimental studies or validations. The contributions can focus on the scale of material or structural modelling. The topics of applications will include (but are not limited to):

- Damage Detection;
- Modelling of Damages, Fractures, Defects and Cracks;
- Dynamic Identification;
- Inverse Problems in Structural Engineering;
- Structural Modelling and Model Updating;
- Machine learning in SHM;
- Sensor Network, Optimal Sensor Placement and Instrumentation Design;
- Sensor Technologies;
- Remote Monitoring.

Guest Editors

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Deadline for manuscript submissions

closed (31 July 2025)

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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Author Benefits

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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).