Special Issue

Intelligent Technologies in Concrete Engineering

Message from the Guest Editors

This Special Issue centers on implementing cutting-edge theories, techniques, and instruments, encompassing machine learning, sensors, robotics, 5G, the Internet of Things, artificial intelligence, building information modeling, computational methodologies, and more, throughout every phase of the construction lifecycle. This comprehensive approach imbues the procedure with greater intelligence and efficiency. This Special Issue also encompasses other critical facets of civil engineering, such as planning, design, operation, maintenance, and disaster risk reduction.

Selected areas and topics of interest include, but are not limited to, the following:

- Advanced experimental technologies;
- Novel modeling and computational methods;
- Application of smart sensors in concrete engineering;
- Application of big data, cloud computing, block chain, etc.;
- Application of machine learning, deep learning, etc.;
- Auto or intelligent equipment for construction process and risk management.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2025)

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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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Rapid Publication:

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).