Special Issue

Application of Emerging Technologies to Improve Construction Performance

Message from the Guest Editors

As Industry 4.0 has increasingly been adapted to the construction sector in recent years, transformations are happening throughout the lifecycle of civil assets. Advances and smart technologies have been proposed to improve efficiency, safety, and sustainability for successful project delivery. High levels of automation and digitalization are pursued, as well. In this Special Issue, we would like to invite and attract contributions on the implementation and adoption of emerging technologies in the construction sector, including but not limited to:

- BIM/CIM
- Digital twin
- Artificial intelligence
- Deep learning
- Internet of Things and wireless sensor networks
- Computer vision
- Knowledge graph
- Robotics in construction
- Mathematical modelling
- Simulation

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Deadline for manuscript submissions

closed (30 September 2022)

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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).