



Recent Advances in Intelligent Infrastructure and Construction Engineering

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Message from the Guest Editors

Dear Colleagues,

Emerging technologies, such as digital twins, computer vision, natural language processing, the Internet of Things, and blockchain, have been driving transformative changes in the infrastructure and construction engineering industry. Within this landscape, the advent of intelligent construction has become increasingly significant, addressing the limitations of traditional construction methods such as time-consuming processes and labour-intensive tasks.

In this Special Issue entitled “Recent Advances in Intelligent Infrastructure and Construction Engineering”, we encourage researchers and scholars to share their recent research results related to smart construction. The main topics covered by this Special Issue include, but are not limited to, the following:

- Civil structural safety and health monitoring;
- Intelligence application in construction;
- Four-dimensional BIM and construction simulation;
- Civil engineering advancements;
- Construction robots;
- Blockchain application in civil engineering;
- Construction environment perception;
- Computer simulation
- Health and safety monitoring and measuring;
- Measurement and risk warning.





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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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