



Urban Infrastructure Construction and Management

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Message from the Guest Editors

Dear Colleagues,

Urban infrastructure construction and management, as the backbone of urban economic and social development, have significant impacts on green economic development. However, with the growing demands of urbanisation, population growth, and climate change, urban infrastructure will undoubtedly face more serious challenges. In order to solve these challenges, new construction materials and technologies are needed to enhance and improve urban infrastructure construction, such as roads, bridges, and so on.

Relevant topics to this Special Issue include (but are not limited to) the following subjects:

- New materials for urban infrastructure construction;
- Advanced technologies for infrastructure construction;
- Sustainable infrastructure construction management;
- Infrastructure construction structural health monitoring;
- Machine-learning-powered management;
- Urban infrastructure construction under climate change;
- Smart and sustainable infrastructural construction;
- Building information modelling (BIM) for infrastructural construction;
- Environmental impact modelling for infrastructure in the life cycle.



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Special Issue

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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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