



Advanced Studies in Prefabricated Buildings

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Message from the Guest Editors

This Special Issue of the journal *Buildings* concerns the advanced studies for the prefabricated construction. Prefabricated buildings have been shown to provide a new way of sustainable construction to reduce the amount of work on construction sites, reduce pollution, shorten construction time, and increase safety. However, many issues, such as low-efficient communication and information exchange, lack of efficient quality inspection system, lack of operation and maintenance system, may harm the performance of the prefabricated construction and hinder its further adoption in the construction industry. Therefore, it is necessary to advance the research in the prefabricated construction field.

This call for papers concerns the scientific work related to a wide of topics in prefabricated construction:

- Digital twin in prefabricated construction
- Artificial Intelligence in prefabricated construction
- Review for existing technologies in prefabricated construction
- Quality assurance system for the prefabricated construction
- Prefabrication design optimization, automation, and integration
- Risk assessment for prefabricated construction
- Energy analysis for prefabricated construction





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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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