



Intelligent Design, Green Construction, and Innovation

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Message from the Guest Editors

Dear Colleagues,

Intelligent design, green construction, and innovation are highly regarded topics in the field of architecture, encompassing the utilization of smart technologies to improve architectural design, environmentally friendly construction practices, and fostering innovation.

This includes the application of artificial intelligence, big data, and the Internet of Things to achieve intelligent design (such as building information modeling techniques), the utilization of novel materials (such as recycled concrete, FRP reinforcement, phase change materials), and methods (such as 3D printing) to achieve green construction, as well as innovative approaches and practices (such as smart building systems) to drive the construction industry towards digitization, automation, and sustainability.

This Special Issue of *Buildings* will focus on the latest developments and technological applications in these areas, promoting the widespread adoption and continuous innovation of intelligent technologies in the field of architecture.





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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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