Special Issue

Innovations and Emerging Technologies in Modular and Prefabricated Building Systems

Message from the Guest Editors

This Special Issue, "Innovations and Emerging Technologies in Modular and Prefabricated Building Systems", aims to gather cutting-edge research and practical insights that advance knowledge in the design, analysis, and application of modular and prefabricated construction. Topics of interest include (but are not limited to) the following: structural performance and durability, fire resistance and energy performance, lifecycle assessment and sustainability, optimization of materials and resources, 3D-printed modular connections and advanced fabrication methods, datadriven design, automation, and machine learning applications, and case studies showcasing successful implementations. By bringing together researchers, engineers, and practitioners, this Special Issue seeks to highlight breakthroughs that can shape the future of building structures and accelerate the transition toward more resilient, flexible, and resource-efficient construction methods. We warmly invite your contributions to this timely Special Issue. More details:

https://www.mdpi.com/journal/buildings/special_issues/8DNVD95DDD

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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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