Special Issue

High-Performance Construction Materials: Recent Developments and Future Perspectives

Message from the Guest Editors

High-performance construction materials are crucial for meeting the growing demands of modern construction, including sustainability, durability, and energy efficiency. In recent years, significant progress has been made in the development of new materials such as advanced composites, smart materials, and eco-friendly materials. These materials offer improved mechanical properties, better resistance to environmental factors, and enhanced functionality. However, challenges still exist in terms of cost, scalability, and integration into existing construction practices. This Special Issue will bring together researchers, engineers, and industry experts to share their insights and findings, providing a comprehensive overview of the current state and future directions of high-performance construction materials. It will cover topics such as material innovation, application case studies, and the potential impact on the construction industry. By fostering collaboration and knowledge exchange, we hope to drive further development and application of these materials to shape a more sustainable and resilient built environment.

Guest Editors

Dr. Hanbing Zhao
Dr. Liangming Sun
Prof. Dr. Zihong Guo

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Buildings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
buildings@mdpi.com

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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

Prof. Dr. David Arditi
Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

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