



Advances in Environmentally-Friendly Building Materials in Construction

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Message from the Guest Editors

This Special Issue aims to publish a wide range of articles that address topics including, among others, alternative construction materials, use of by-products and industrial wastes, eco-efficient and carbon-neutral construction materials, durability, life cycle analysis, geopolymers, and innovative technologies of construction.

- circular economy
- sustainable and low-carbon building materials
- eco-friendly materials and processes
- utilization of by-products and waste materials in construction
- construction and demolition wastes
- recycled aggregates
- alternative binders to Portland cement (geopolymers)
- 3D concrete printing
- concrete durability
- life cycle analysis





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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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