Special Issue

Application of Eco-Efficient Composites in Construction Engineering

Message from the Guest Editor

Buildings are a major source of operational and embodied anthropogenic global CO2 emissions while the construction industry is responsible for extensive natural resources depletion and waste production. Therefore, performing comprehensive research to promote energy-efficient buildings, eco-friendly construction materials, and recycling material and energy within a circular economy approach is of great significance. This Special Issue invites robust and novel research studies on carbon-neutral building materials, building materials with high recycled content, utilization of by-products and waste materials in construction, eco-efficient technologies in building engineering, additive manufacturing in building engineering, artificial intelligence, IoT technologies for sustainable and resilient buildings, and related innovative research centered on the sustainability of building materials. Experimental, analytical, and numerical models with clear novelty and contribution to the state of the art will be considered. Redundant studies that report on issues already covered in the open literature will not be considered.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2023)

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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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