Special Issue

Low-Carbon Materials and Advanced Engineering Technologies

Message from the Guest Editors

This Special Issue, titled "Low-carbon Materials and Advanced Engineering Technologies", is dedicated to presenting cutting-edge research and innovative solutions crucial for enabling the transition to a sustainable, low-carbon future. Additionally, we encourage research on the implementation of advanced engineering technologies, including artificial intelligence, automation, and intelligent structural systems. A key objective is to understand how these developments collectively facilitate the transition toward low-carbon, green, and advanced technologies. We welcome the submission of high-quality original research papers and critical review articles that address, but are not limited to, the following interconnected themes:

- Additive manufacturing;
- Sustainable and low-carbon building materials;
- Carbon capture and utilization (CCU);
- Advanced building and infrastructure systems;
- Integrated applications of BIM and AI in construction monitoring;
- Advanced construction and management methods;
- Structural dynamic response;
- Strength theory and applications;
- Structural health monitoring and intelligent maintenance technologies.

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Deadline for manuscript submissions

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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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