



Sustainable Development: New Trends in Energy Saving, Carbon Reduction and Green Building Materials—2nd Edition

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Message from the Guest Editors

Dear Colleagues,

The building and construction industry is one of the largest resource-consuming industries in the world, including the extraction of materials, energy and water consumption, and waste generation. Therefore, sustainable development is a key goal of the national circular economy policy—a renewable economy in which the negative impact of the construction industry on the environment is minimized. This Special Issue is devoted to publishing papers that describe the most significant research in building materials, repair, and renovation, with a focus on advanced, sustainable, or green building, which could contribute to a construction industry based on the innovation and circular economy principles.

This Special Issue covers the following important topics:

- Sustainable or green materials for construction;
- Innovative repair/renovation techniques or materials;
- Advanced materials for construction;
- Energy saving and carbon reduction in construction;
- Integrated approaches for building materials, repair, and renovation in sustainable construction;
- Case studies in sustainable or green construction materials.



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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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