



New Trends in Energy Efficiency and Carbon Reduction for Sustainable Building

Guest Editor:

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Message from the Guest Editor

We are pleased to invite you to contribute to our Special Issue on "New Trends in Energy Efficiency and Carbon Reduction for Sustainable Building". This Special Issue aims to explore these emerging trends and the innovative research driving them. We welcome original research, case studies, and comprehensive reviews focused on topics such as AI and data-driven energy management, sustainable mobility solutions, and the integration of energy systems in buildings. Research areas may include, but are not limited to, the following:

- AI and data-driven approaches for carbon reduction;
- Integration of energy sources and infrastructures;
- Sustainable mobility solutions in building;
- Advanced HVAC and thermal systems;
- Policy, regulation, and incentives for sustainable building.





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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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