Special Issue

Energy Saving, Storage and Carbon Emission Mitigation Application for Buildings

Message from the Guest Editors

The building sector is responsible for a significant proportion of global energy usage, and generates large quantities of greenhouse gas emissions. Buildings play a key role in the transition to a low-carbon and clean energy future through deep decarbonization and assisting in achieving nations' commitment to the Paris Agreement's long-term temperature goal to limit global warming. This has intensified the calls for innovative technologies for increased energy efficiency, resilience and sustainability. This Special Issue aims to collect excellent research and review articles addressing global imperatives and stringent environmental standards related to energy and sustainability in buildings to meet the UN's Sustainable Development Goals (SDGs). The potential topics of this Special Issue include, but are not limited to:

- Building energy-saving solutions and techniques.
- Energy storage technologies and applications in buildings.
- Building carbon emission mitigation strategies.
- Smart energy technologies.
- Building energy management solutions.
- Renewable energy in buildings.
- Building big data analytics.

Guest Editors

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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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