Special Issue

Decarbonizing Smart Buildings and Energy Systems: Digital Twins, Advanced Models and Optimization Algorithms

Message from the Guest Editors

This Special Issue aims to highlight recent research that has contributed to the decarbonization of both smart buildings and energy systems. We welcome the submission of both original research and review articles that address the following topics:

- Innovative data-driven and physics-based models that reduce energy consumption and emissions;
- BIM-based frameworks and case studies for the integration and optimal management of smart buildings;
- Optimization of smart energy networks, including smart grids and fourth- and fifth-generation district heating and cooling networks;
- Novel methodologies for improving building control systems to enhance efficiency and indoor comfort for occupants;
- Internet of Things applications for enhancing energy efficiency, reducing costs, and lowering emissions;
- The integration and optimal control of renewable energy sources in smart built environments;
- Systematic reviews on recent smart energy systems applications;
- The application of Life Cycle Assessment to systems integrated with smart technologies.

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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