

Special Issue

Current Trends for Reducing Building Energy Consumption

Message from the Guest Editors

Reducing building energy consumption is an important measure to deal with the global energy crisis and climate change, as buildings take the lead in consuming a substantial amount of energy, about 40% of global energy consumption. Innovative technologies and management methods related to building energy efficiency are current research hotspots. The Special Issue aims to bring together cutting-edge research advances in building energy efficiency. Papers that investigate or consider the prospects of energy devices, systems, processes, operation, performance, maintenance, and control are also welcome. For this Special Issue, we are particularly interested in inviting papers focusing on the (i) energy demands and consumption in existing and future buildings; (ii) energy conservation in the built environment; (iii) occupant-centric building energy modelling; (iv) design and management of green buildings; (v) design and operation optimization of building energy systems; (vi) distributed renewable energy systems; and (vii) smart energy trading. This Special Issue welcomes synthesizing articles and historical and current case studies, as well as theoretical papers.

Guest Editors

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Deadline for manuscript submissions

closed (10 March 2023)



Buildings

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Impact Factor 3.1
CiteScore 4.4



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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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