

## Special Issue

# Building-Integrated District Energy Systems: Implementation, Optimization, and Management

### Message from the Guest Editors

As the global community accelerates efforts to decarbonize the built environment, district energy systems have become a cornerstone of enhancing building energy efficiency and integrating renewable sources at the community scale. While the benefits of DESs for buildings are well-recognized, their successful implementation, optimization, and management are critical to maximizing building performance and sustainability. At the same time, the successful implementation of DESs depends heavily on their seamless integration with the building sector.

We invite researchers and practitioners to submit original research and review articles that address the technical, economic, and operational challenges from a building-centric perspective. Key areas of focus include innovative design and planning frameworks for connecting buildings to thermal networks, building-to-district energy modeling, the role of buildings as "prosumers" within multi-energy microgrids, advanced control and optimization strategies for building-level energy use, and the integration of decentralized renewable energy, geothermal, and waste heat recovery within building clusters.

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### Guest Editors

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### Deadline for manuscript submissions

31 January 2027



## Buildings

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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.

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### Editor-in-Chief

Prof. Dr. David Arditi

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indexed within SCIE (Web of Science), Scopus, Ei Compendex, Inspec, and other databases.

#### Journal Rank:

JCR - Q2 (Construction and Building Technology) /  
CiteScore - Q1 (Architecture)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).