

## Special Issue

# Renewable HVAC Solutions for Existing and New Buildings

### Message from the Guest Editors

This Special Issue aims to provide a comprehensive platform for disseminating recent advances, innovative solutions and practical applications contributing to the sustainable transformation of HVAC systems in the built environment. It welcomes contributions addressing the full lifecycle of building energy systems, from environmental assessment (life cycle assessment—LCA) to economic evaluation (life cycle cost analysis—LCC analysis). In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Renewable energy integration in HVAC systems for existing and new buildings;
- Heat pumps and high-temperature solutions for building retrofitting;
- 5th generation district heating and cooling (5GDHC) networks;
- Thermal energy storage in hybrid energy systems;
- Life cycle assessment (LCA) and life cycle cost (LCC) analysis;
- Model predictive control (MPC) and AI for building energy management;
- Nearly zero-energy buildings (nZEB) and energy communities;
- Building energy simulation and digital twin approaches.

We look forward to receiving your contributions.

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### Guest Editors

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### Deadline for manuscript submissions

30 April 2027



## Sustainability

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## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

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## Editor-in-Chief

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