

## Special Issue

# Building Energy Performance Modelling and Simulation

### Message from the Guest Editors

Climate change and rising user expectations for thermal comfort have led to increased energy consumption in buildings. Understanding the building-system-occupant relationship is key to reducing it. Building performance simulation (BPS) is an essential tool for reducing energy consumption in buildings. It can predict and optimize building performance, indoor environmental quality, and energy consumption, both at the design stage and in real operating conditions. We invite you to publish original articles on the theory, design, development, and applications of building and indoor environment quality modelling and simulation. Topics include, but are not limited to:

- Developments in simulation
- Modelling and simulation of:
  - Energy demand for HVAC systems
  - Thermal comfort and sensation
  - Indoor air quality
  - Visual comfort
  - Human behaviour
  - Greenhouse gas emissions
  - Life cycle costs
- Computational Fluid Dynamics (CFD) simulation
- Validation, calibration, and uncertainty
- Building Information Modelling (BIM) and digital twins for indoor environmental quality (IEQ) analysis
- New software development

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### Guest Editors

Dr. Joanna Ferdyn-Grygierek

Dr. Krzysztof Grygierek

Dr. Agnes Psikuta

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### Deadline for manuscript submissions

15 September 2025



## Energies

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## About the Journal

### 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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### Editor-in-Chief

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