Special Issue

Optimizing Energy Consumption, Energy Management, and Energy Efficiency in Smart Buildings

Message from the Guest Editors

Dear Colleagues, This Special Issue, titled 'Optimizing Energy Consumption, Energy Management, and Energy Efficiency in Smart Buildings', seeks to explore emerging methods, technologies, and frameworks that enable intelligent, data-driven energy optimization. Contributions address a broad spectrum of topics, including predictive energy management systems, the integration of renewable energy sources, IoT-enabled building automation, demand response strategies, occupant-centered energy optimization, and the application of artificial intelligence, digital twins, and machine learning in building energy analytics; optimum design and operation approaches are also considered. This Special Issue also highlights interdisciplinary approaches that balance technological innovation with human comfort, economic feasibility, and environmental impact. By gathering cutting-edge research and practical case studies, this Special Issue aims to advance the state of knowledge in smart building energy systems and guide the development of next-generation sustainable infrastructures.

Guest Editors

Dr. Giorgos Panaras

Process Equipment Design Laboratory, Department of Mechanical Engineering, Aristotle University, 54124 Thessaloniki, Greece

Dr. Effrosyni Giama

Process Equipment Design Laboratory, Department of Mechanical Engineering, Aristotle University, 54124 Thessaloniki, Greece

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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