Special Issue

Digital Modeling, Operation and Control of Sustainable Energy Systems

Message from the Guest Editors

To advance the field of sustainable energy systems under the dual contexts of energy and digital transformation, we invite you to contribute high-quality innovative research to this Special Issue, focusing on the “model-ing-control-operation” technology chain for renewable and integrated energy systems enabled by next-generation AI technologies. Key topics of interest include but are not limited to: multi-scale hybrid modeling of sustainable energy systems, outage monitoring, event detection and resilient operation of power systems, smart optimization and scheduling for low-carbon energy systems, multi-energy complementary technologies for urban, campus, and rural integrated energy systems, intelligent planning methods for modern power systems in the context of low-carbon transitions, applications of AI in forecasting and analysis of low-carbon energy systems, autonomous restoration control under extreme events, stability analysis and control of power-electronic-dominated systems, and autonomous energy management algorithms.

Guest Editors

Dr. Yi Yu

Dr. Rongni Yang

Dr. Yingping Cao

Dr. Kuan Zhang

Dr. Hong Tan

Deadline for manuscript submissions

31 March 2026

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/238294

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

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

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.

Editor-in-Chief

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

CiteScore - Q1 (Control and Optimization)

MDPI