

Special Issue

Distributed Optimization and Resilient Control for Smart Energy Systems

Message from the Guest Editors

This Special Issue aims to provide a comprehensive platform for recent advances in distributed optimization and resilient control strategies for smart energy systems, fully aligned with the scope of *Energies*. Contributions may address theoretical developments, algorithm design, modeling techniques, simulation frameworks, and real-world validation studies across microgrids, smart grids, hybrid AC/DC systems, energy communities, electric vehicle integration, and renewable-dominated power networks. Topics of interest include, but are not limited to:

- Distributed and decentralized optimization algorithms for energy management.
- Model Predictive Control (MPC) and hierarchical control of distributed energy resources.
- Multi-agent and consensus-based coordination strategies.
- Robust and fault-tolerant control of cyber-physical energy systems.
- AI- and data-driven approaches for adaptive energy system control.
- Stability and resilience enhancement under uncertainty and disturbances.
- Distributed scheduling and energy trading mechanisms.
- Optimization-based integration of EVs, storage systems, and renewable sources.

Guest Editors

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Deadline for manuscript submissions

25 August 2026



Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



mdpi.com/si/273387

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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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