# Special Issue

# AI-Enhanced Operation and Management of Renewable Energy-Integrated Power Systems

## Message from the Guest Editors

In the face of the accelerating integration of large-scale renewable energy sources, the operation of modern power systems must adapt to maintain stability, reliability, and economic viability. This Special Issue addresses these evolving challenges by showcasing state-of-the-art research in AI-enhanced power system operation and management with renewable energy integration technology. Through this collection of cutting-edge studies, the Special Issue aims to foster a deeper understanding of advanced operational and managerial methodologies, thereby accelerating the global transition toward a cleaner, more efficient, and resilient energy future.

- advanced AI applications
- AI-enhanced operation and management methods
- large-scale renewable energy integration
- multi-energy coupling and coordination
- demand-side management and demand response
- real-time monitoring and analytics
- cyber–physical security and resilience
- risk assessment and management
- distributed generation and microgrid operation

## Guest Editors

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Dr. Yujia Huang

Dr. Chao Yang

## Deadline for manuscript submissions

15 August 2025

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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.

## Editor-in-Chief

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