

## Special Issue

# Advanced Techniques for Optimization and Energy Management in Smart Grids

### Message from the Guest Editor

We invite submissions to a Special Issue of *Energies* centered around the advanced approaches, theoretical models, market models, AI applications, and novel techniques used for the operation and control of smart grids. This Special Issue aims to encourage researchers to address the mentioned challenges. Topics of interest for publication include, but are not limited to, the following:

- The structural system and design concept of smart grids;
- System reliability, sustainability, flexibility, and resilience;
- The modeling, planning, and operation of renewable energy resources;
- Multi-energy complementation;
- Low-carbon operation and schedule;
- The intelligent management of EV charging;
- Smart power consumption, demand side management, and demand response;
- AI methodologies and applications for the operation and control of smart grids;
- Business models for different electricity market players;
- The sizing, placement, and operation of energy storage systems;
- Smart homes and building energy management;
- Electricity market, electrical power, and energy systems;
- The forecasting and schedule of uncertainty in smart grids;
- Microgrids and microgrid groups.

### Guest Editor

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### Deadline for manuscript submissions

5 December 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.

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### Editor-in-Chief

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