Special Issue

New Challenges and Solutions to Improve Energy and Computational Efficiency in Smart Grids

Message from the Guest Editors

This Special Issue invites researchers, engineers, and industrial practitioners to submit original research and review articles that shed light on, but are not limited to, the following topics:

- Innovations in grid control and smart grid technology, including model-based optimization and model-free learning-based algorithm to improve decision making and computational efficiency;
- Novel approaches for improving data collection and communication with advanced metering infrastructure to enhance energy monitoring and management;
- Strategies for integrating distributed energy resources to optimize energy efficiency and grid stability, including renewable energy resources, inverter-based resources, energy storage systems, microgrids, and demand-side management;
- Assessments of the impact of end-use electrification on energy efficiency in smart grids and proposals for improvements, including transportation and building electrifications;
- Methods for enhancing resilience of smart grid systems against extreme events while ensuring energy efficiency;
- Methods for enhancing resilience of smart grid systems against cyber threats while ensuring computational efficiency.

Guest Editors

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Deadline for manuscript submissions

closed (31 May 2025)

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You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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