Special Issue

Advanced Battery Management Strategies

Message from the Guest Editors

Advanced battery management strategies are crucial for optimizing the efficiency, safety, reliability, and lifespan of batteries in various applications. With the growing global emphasis on sustainability, developing intelligent and optimized battery management systems is crucial for enhancing energy storage performance and integrating with renewable energy sources. Innovations in battery diagnostics, state-of-health estimation, predictive control algorithms, and adaptive management techniques are significantly advancing battery technology, enabling the broader adoption of clean energy solutions. This Special Issue invites original research and reviews focusing on advanced methods, algorithms, and technologies in battery management. Topics of interest include but are not limited to:

- Intelligent algorithms for battery state estimation and fault diagnostics;
- Predictive and adaptive battery management systems;
- Machine learning applications in battery health prognosis;
- Optimization of battery management for electric vehicles and stationary storage;
- Thermal management strategies for improved battery safety and performance

Guest Editors

Dr. Tianjing Wang

Prof. Dr. Ling Fu

Dr. Lingfeng Zhu

Dr. Xizhen Xue

Deadline for manuscript submissions

5 December 2025

Energies

MDPI

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)