

Special Issue

Battery Health Management for Cyber-Physical Energy Storage Systems

Message from the Guest Editors

With the rapid evolution of electric vehicles, distributed renewable energy, and decentralized energy systems, there is a growing demand for intelligent solutions that enhance stability, efficiency, and resilience. This Special Issue seeks high-quality submissions focused on the modeling, control, and real-world application of intelligent energy and predictive systems for sustainable technological advancement. Contributions are invited on fault diagnosis, battery aging modeling, and electrochemical analysis techniques, such as electrochemical impedance spectroscopy (EIS). We also welcome innovative works on battery management system (BMS) architecture and implementation, including cell balancing, system-level optimization, and integration into hybrid or renewable-based power platforms. Moreover, contributions on renewable energy systems and photovoltaic (PV) integration, especially under fluctuating environmental conditions and hybrid configurations, are encouraged. In parallel, the rise in artificial intelligence (AI), machine learning (ML), and deep learning (DL) opens up new possibilities in energy system optimization, health monitoring.

Guest Editors

Prof. Dr. Chung-Wen Hung

Dr. Chun-Liang Liu

Dr. Guan-Jhu Chen

Deadline for manuscript submissions

28 February 2026



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/243210

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

[mdpi.com/journal/
electronics](https://mdpi.com/journal/electronics)





Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



[mdpi.com/journal/
electronics](https://mdpi.com/journal/electronics)



About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di
Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus /
SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) /
CiteScore - Q1 (Electrical and Electronic Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 16.8 days after
submission; acceptance to publication is undertaken in 2.4
days (median values for papers published in this journal in
the first half of 2025).