Challenges of Battery Management System

Guest Editor:

Prof. Dr. JongHoon Kim
Department of Electrical
Engineering, Chungnam National
University, Daejeon 34134,
Republic of Korea

Deadline for manuscript
submissions:
closed (31 July 2022)

Message from the Guest Editor

With great attention on multicell battery string for electric-powered applications, such as electric vehicles (EV), hybrid electric vehicles (HEV), and energy storage systems (ESS), the necessity of the battery management system (BMS) for having high confidence on operational performance in EV, HEV, and ESS have substantially increased together. Therefore, this Special Issue focuses on variable challenges of battery management system considered in electric-powered application. The topics of interest include but are not limited to:

- Advanced equivalent electrical circuit modeling
- Electrochemical-based modeling
- SOx estimation and prediction algorithms
- Thermal modeling and management system
- Artificial intelligence (AI)-based BMS
- Fault diagnosis and detection
- Remaining-useful life
- Voltage and SOC equalization
- Variable issues of second-use battery (retired battery)
- Variable issues of energy storage system (ESS)
- New-generation battery
- Power electronics-based battery charger and fast charging

Welcome to contribute.

mdpi.com/si/31241

Special issue

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and
Telecommunications,
Politecnico di Torino, 10129
Torino, Italy

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 guestedited by leading experts in selected topics of interest.

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), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.
Journal Rank: JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic Engineering)

Contact Us