Special Issue

Challenges of Battery Management System

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.

Guest Editor

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Deadline for manuscript submissions

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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.

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