Special Issue

Key Functionalities in Battery Management Systems for Transportation Electrification

Message from the Guest Editors

Advanced key functionalities in battery management systems can potentially improve not only the usage of batteries but also the manufacturing based on positive feedback in field operation. With this in mind, this Special Issue aims to develop advanced key functionalities in battery management systems for electric vehicles. Original and high-quality research, reviews, and perspectives are invited for publication. Potential topics include, but are not limited to, the following:

- Battery modelling with physics-based modelling and artificial intelligence;
- State estimation in electrode, cell, module, and pack level;
- Battery degradation diagnosis, prognosis, and optimization;
- Battery thermal monitoring, management design, and control strategy;
- Safety mechanisms, early warning, diagnosis, and prediction;
- Advanced experiment and characterization;
- Emerging sensor technologies for battery management;
- Series/parallel analysis and cell balancing for battery pack;
- Advanced energy management for electric vehicle.

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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.

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