Special Issue

State-of-the-Art in Electric Vehicle Battery State of Charge, Health and Power Estimation

Message from the Guest Editors

The market growth in electrified transportation and their battery systems has driven the need for more accurate, intelligent, robust, and comprehensive battery algorithms and battery management system (BMS) software. There have been many emerging techniques over the years for battery state/parameter estimation, ranging from electrochemical model-based approaches, semi-empirical recursive nonlinear observers/Kalman filter derivatives, to data-driven machine learning approaches. This Special Issue will deal with recent electric vehicle-related advancements and approaches to reporting battery life, energy, and power capabilities. Topics of interest for publication include, but are not limited to:

- Battery Algorithms
- State-Of-Charge (SOC) Estimation
- State-Of-Health (SOH) Estimation
- State-Of-Power (SOP) Estimation
- Battery Capacity Estimation
- Battery Resistance Estimation
- Recursive Observer/Filter Algorithms
- Machine Learning and Neural Networks
- Electrochemical/Physics-based Battery Models
- Battery Data Analytics

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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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