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Lithium-Ion Battery Management Systems: Design, Development, Analysis and Implementation

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Message from the Guest Editors

This Special Issue aims to collect high-quality review and research articles related to the topic of battery management systems for lithium-ion battery research and applications for BMS development and implementation. Topics of interest include, but are not limited to:

- State-of-the-art technologies and new developments for BMS applications;
- Review articles for Li-ion BMS research and applications;
- The design, verification, and implementation of enhanced algorithms for battery control and monitoring, including: state-of-charge (SOH), state-of-power (SOP), state-of-health (SOH), and state-of-function (SOF);
- Battery diagnostic and prognostic functions;
- Battery system thermal management;
- Smart Li-ion BMS development;
- Small-scale and large-scale Li-ion BMS integration;
- Control development and optimisation for BMS functionalities;
- Active battery balancing control features, topologies, and integration;
- The role of the BMS in extending battery pack functionality and service life;
- Functional safety within the context of BMS design and verification;
- Security and privacy in BMS development.



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Special Issue



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Message from the Editor-in-Chief

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