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Smart Lithium-Ion Battery Systems: Advanced Modeling, State Estimation, and Control

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Deadline for manuscript
submissions:

closed (31 October 2022)

Message from the Guest Editors

Dear Colleagues,

Lithium-ion batteries are deployed in a wide variety of applications, such as portable electronics, electric vehicles, and stationary power storage systems, by virtue of their high energy and power densities and long lifetime. With emerging techniques such as artificial intelligence and blockchain, smart battery systems, incorporating state-of-the-art battery hardware with advanced battery management processes, are moving rapidly from a research field towards a requirement for technology functionality. Advanced modeling, state estimation, and control compose the key technologies of smart battery systems, which contribute to extending battery lifetime and enhancing battery safety. This Special Issue is a dedicated outlet for up-to-date research on all aspects of advanced modeling, state estimation, and control for smart lithium-ion battery systems. Manuscripts from cross-disciplinary fields, such as artificial intelligence, blockchain, electrochemistry, power electronics, and thermal and mechanical technologies are strongly encouraged.



mdpi.com/si/111596

Special Issue



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Message from the Editor-in-Chief

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