

Special Issue

Advanced Modeling, Control and Emerging Application of Energy Storage Systems

Message from the Guest Editors

Energy storage systems (ESSs) are essential for achieving intelligent transportation electrification and are considered fundamental assets integrated into modern power systems. Emerging applications of ESSs with various entities can accelerate the paradigm shift towards sustainable transport and power systems. Therefore, this Special Issue aims to provide timely solutions for emerging scientific and technical challenges in energy storage for intelligent transportation systems and smart grids. Topics of interest include but are not limited to:

- Advanced models for batteries, supercapacitors, and fuel cells etc.;
- Energy storage systems integration and performance optimization;
- Multi-physics field modeling, simulation, and experiments of ESSs;
- Online parameter identification and joint state estimation of ESSs;
- Lifetime prediction/analysis and fault diagnosis of HESSs;
- Innovative data analysis and energy management strategies of ESSs;
- Advanced battery safety and thermal runaway warning technology;
- AI-enabled decision making and operation and maintenance.

Guest Editors

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Deadline for manuscript submissions

closed (10 January 2023)



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About the Journal

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.

Editor-in-Chief

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