

Special Issue

EV (Electric Vehicle) Energy Storage and Battery Management

Message from the Guest Editors

Emerging and disruptive technologies in power electronics and energy storage are pivotal to advancing the automotive industry and renewable energy networks. This Special Issue seeks cutting-edge research addressing the integration of advanced power electronics and energy storage systems into automotive and renewable energy applications. Topics of interest include, but are not limited to, the following:

- Battery management system (BMS) design and development;
- Wide-bandgap (SiC, GaN) devices for high-efficiency power conversion;
- Solid-state batteries, supercapacitors, and hybrid energy storage solutions;
- Vehicle-to-grid (V2G) integration and bidirectional charging systems;
- Thermal management and safety protocols for high-density energy storage;
- AI-driven energy management and predictive maintenance in smart grids;
- Sustainable materials and circular economy approaches for battery production;
- Fast-charging technologies and wireless power transfer systems;
- Case studies on renewable energy microgrids and electrified transportation networks.

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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