Special Issue

Towards a Smarter Battery Management System

Message from the Guest Editors

Lithium-ion batteries are widely used in electric vehicles (EV) and the energy storage industry due to their high-energy density and long cycle life. As their price decreases, lithium-ion batteries will continue to be used in the future. Battery management systems (BMS) are the key component to ensure the stable and reliable operation of battery systems. It monitors the battery operation data; estimates the battery state of charge (SOC) and state of health (SOH); conducts battery balance; manages thermal systems; and performs fault diagnosis, etc. BMS-related hardware and algorithm have developed rapidly in recent years. Therefore, this Special Issue aims to demonstrate the latest BMS-related technologies, such as SOC and SOH estimation algorithms, balance systems, wireless BMS, and second life battery applications, etc. Potential topics include, but are not limited to:

- Battery management system hardware and algorithms;
- Battery modeling;
- Battery parameter identification;
- Battery state of charge (SOC) estimation;
- Battery state of health (SOH) estimation;
- Battery fault diagnostics;
- Battery balance or equalization topology and method.

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