

Special Issue

Battery Management Systems of Electric and Hybrid Electric Vehicles II

Message from the Guest Editor

The battery management system (BMS) is a key component of electric and hybrid electric vehicles (EVs/HEVs) that integrates energy storage systems (ESS) such as batteries of different chemistries, supercapacitors or hybrid components, sensors, controllers, serial communication, and computation hardware with software algorithms on-board implemented to assess the maximum charging/discharging cycles' current and the duration from the estimation of state of charge (SOC) and state of health (SOH) of the battery pack. The BMS performs the tasks by integrating one or more of the functions, such as sampling the voltages of the battery cells and the temperatures in the battery module, sampling the voltage of the battery, sampling the current of the battery, as well as cell balancing and determining the state of charge (SOC) of the battery. Thus, a BMS is an essential interface between the battery and the EV/HEV, extremely useful in improving the battery performance and optimizing vehicle operation in a safe and reliable manner...

Guest Editor

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