Special Issue

Battery Management System for Electric Vehicles

Message from the Guest Editor

Battery management systems (BMSs) are a key element for safe operation of battery packs installed in electric vehicles. Critical missions of the BMS, including estimation of current battery states, protection from abuse and failure cases, and early diagnostics of excessively aging cells, are clearly defined and seem to be straightforward. However, when it comes to establishing stable and reliable theories and implementation of BMSs, they are still quite far from a satisfactory level both developers and consumers can agree to. On top of that, the BMSs should be designed and developed to be practically implementable for the use of electric vehicles; therefore, many limitations are imposed from the perspective of mass production of the electric vehicle. In this Special Issue, I look forward to collecting various techniques affordably implementable for practical use of BMSs for electric vehicles. Furthermore, I would like to extend the scope to include algorithms that could reliably estimate the state of health of the battery which can possibly be used to evaluate batteries for reuse/recycling when electric vehicles are turned in.

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