

Energy storage phm system





Overview

What is battery PHM?

To meet the accuracy and applicability requirement of battery consumers, prognostics and health management methods are significantly important. Battery PHM refers to activities to apply PHM approaches in the field of batteries, which includes the prognostics (i.e., health prediction) and health management (e.g., replacement) of batteries.

Why is battery PHM important?

Battery safety attracts increasing attention from battery consumers and producers. Battery PHM can be helpful for ensuring battery safety. Failures of batteries can bring loss of power, downtime, and even severe accidents. For example, the short circuit has the risk of leading to temperature increase, and subsequent fire and explosion.

How important is battery data acquisition in a Li-ion battery PHM system?

Accurate and reliable battery data acquisition is a crucial step in developing data-driven li-ion battery PHM systems. However, obtaining comprehensive battery data is both time-consuming and resource-intensive.

Can PHM improve the availability and reliability of batteries?

Fortunately, prognostics and health management (PHM) technique has been demonstrated the capability of supporting the improvement of the availability and reliability of batteries. In this paper, we gave a review on the state-of-the-art of the PHM study on batteries.



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