Abschlussarbeit

"Application of active balancing strategies for heterogeneous battery cells"

Beschreibung:

The present thesis aims to collect experimental data from lithium-ion battery cells aged in profiles like electric vehicles. These cells are initially characterized through diagnostic tests to determine the initial condition of these batteries. The data will be collected at the Battery Laboratory of the Technische Hochschule Ingolstadt (THI). The algorithm developed in this thesis will aim to control 4 to 6 cells that can be connected in series or in parallel. The cells that this algorithm will control are subject to manufacturing defects, non-uniform aging conditions, a different State of Charge (SoC), and State of Health (SOH). The algorithm will be responsible for the active balancing of the cells.

Ihre Aufgaben:

- First Phase: Acquisition of battery cells. Experiment specification.

- Second Phase: Algorithm development.

- Third Phase: Writing the text document of the thesis, representing/presenting the results.

Ihr Profil:

- MatLab or Python experience and knowledge are desirable but not required.

- Basic knowledge of battery systems is desirable.

- Confident use of MS Office.

Interesse? Fragen? – Kontaktieren Sie uns!

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