

Calibration of multi temperature sensor setup

Accurate temperature measurement on lithium-ion cells is essential for the modeling and validation of thermal models. To address this, we have developed flexible printed circuits (FPCs) equipped with multiple temperature sensors.

The aim of this research module is to develop and implement an algorithm for calibrating temperature sensors using Peltier elements and a laboratory-grade thermometer. In addition, the measurement uncertainties associated with the temperature sensors shall be systematically evaluated.

Throughout the module, you will have the opportunity to:

- Deepen your understanding of thermal systems and sensor calibration
- Learn how to evaluate and interpret measurement data, including uncertainty analysis
- Enhance your proficiency in Python for scientific computing and data processing

Qualifications:

- Basic programming knowledge in Matlab & Simulink
- Understanding of proper measurement techniques and treatment of uncertainties in experimental data
- Independent and careful way of working

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