

Einladung zu einem Promotionsvortrag

Vortragender:	Marian Patrik Felder, M. Sc.
Thema:	Identification of the Current State of a Battery using Impedance Measurements – Erkennung des Zustands der Batterie anhand von Impedanzmessungen
Inhalt:	<p>The role of electric vehicles (EVs) in public and private transportation is being redefined. Motivated by the current and looming climate crisis, EVs are seen as a bridge technology to more energy-efficient modes of transportation. A key aspect in the transition is an accurate understanding of the current state of the battery. As battery science has progressed, better cell types have been developed, each with its own unique characteristics and challenges. While lithium ion battery cells are very much discussed as the best available technology for energy storage in EVs, some conventional state of charge (SoC) detection methods are not applicable.</p> <p>This thesis investigates the use of impedance-based SoC estimation in EVs. This work focuses on battery state detection based on a cell model and test drive measurements. A method is proposed that aims to overcome the shortcomings of the traditionally used Fourier transform with respect to the effects caused by signals occurring simultaneously with the SoC measurements in the on-board power supply network.</p>
Termin:	21.01.2025 um 11:30
Ort:	Physik P1-04-207
Vortragsleitung:	Prof. Dr.-Ing. Jürgen Götze

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