Student thesis

Master thesis

Generation of representative drive cycles from drive and vehicle data for battery-electric trucks

Topic and Goal of the Thesis

The electrification of road transport is a key aspect of CO2 reduction. For successful market penetration, battery-electric trucks must have equal or better attributes in terms of efficiency and economic viability compared to conventional vehicles. A requirement-oriented powertrain design provides a first step for this.

The aim of this work is to derive driving cycles from drive and vehicle data for battery-electric trucks.

Working Points

- Orientation and research on drive profiles and cycles
- Identification of essential parameters for modelling real-world driving behaviour of battery electric trucks
- Deriving application-specific drive cycles from measurement data
- Exemplary application within the research project BEV goes eHighway (BEE)

Requirements

- Good English or German language skills
- Reliability, commitment and enjoyment of working independently
- Experience with Matlab and Matlab/Simulink is an advantage (not a must)

Department

Energy Management & Drivetrains

Contact

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Language

German or English

Entry Date

Earliest possible date

Prior knowledge

Matlab (advantageous)
Simulink (advantageous)

Please send applications by e-mail with current grades and curriculum vitae