

Student thesis



Bachelor or master thesis

Modelling and simulation of powertrain topologies 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.

The aim of this work is to identify potential powertrain topologies for battery electric trucks and to model them simulatively for further developments.

Working Points

- Orientation and research on powertrain topologies of battery electric trucks as well as their components
- Identification of general driving and vehicle requirements
- Development and integration of calculation methods into an existing development environment
- Exemplary application for a reference vehicle

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)

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