Chair of Production Engineering of E-Mobility Components

RWTH AACHEN UNIVERSITY

Lehrstuhlleitung: Prof. Dr.-Ing. Günther Schuh
Besuchen Sie uns: www.pem.rwth-aachen.de

Bachelor-/Master

Mobility of the future – modular electric powertrain system for commercial vehicles

Initial situation:

In the next few years, the PEM Institute of the RWTH Aachen University will build a total of four commercial vehicles with different electric powertrain concepts in the framework of a research project. For this purpose, various powertrain concepts are being developed and integrated into production vehicles.

In addition to the conversion of the vehicles, the concept for a modular and flexible powertrain is being developed. This conceptual powertrain must support different energy concepts and can be adapted to almost any vehicle with a short development phase.

Your tasks:

Your task is to create the first evaluation for a modular concept for this powertrain. On the basis of various applications, it is necessary to identify the technological requirements for the main components, to evaluate the limits of the interfaces between these and to choose a methodology for the design of the construction kit. Finally, a cost-oriented evaluation of the concept is required.

The concrete tasks include e.g.:

– Derivation of a requirement profile for all powertrain components
– Selection of a suitable design method
– Function-oriented modular development process
– Investment and operating costs Assessment

Requirements:

– Studies in mechanical engineering, automotive engineering or similar
– Interest in production and/or automotive technology
– Safe handling of MS Office
– Independent structured work
– Ability to communicate and work in a team
– High commitment and initiative

Our offer:

– Comprehensive support
– Delimited tasks
– Close cooperation with an industrial partner
– Cooperation in a young, dynamic project team

Have we piqued your interest?

Please send a current excerpt of grades, curriculum vitae and certificates together with a letter of motivation to the email address below.

Your contact at PEM:

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