Master Thesis

Start: from now

Faculty 4 - Mechanical Engineering
Faculty 6 - Electrical Engineering and Information Technology

Modelling of novel electric machine concepts for vehicle simulation

Model approximation and order reduction are typically applied for vehicle system simulation as part of model-based function development or Hardware-in-loop models. A novel electric motor with reconfigurable windings and drive is under investigation in the institute. Different modelling approaches are to be evaluated for their applicability in different scenarios during development and testing.

Your tasks:

- Further development of reduced order, equivalent circuit and approximated model of the novel electric motor and drive setup
- Evaluation against FEM based high fidelity model

Your competences:

- Good understanding of mechatronic components and systems
- Interest in vehicle systems and powertrain simulation

Your benefits:

- You gain practical skills in electric powertrain modelling, that are highly rated for automotive pre- and concept development, model based function development and X-in-loop validation applications

Teaching and Research Area
Mechatronics in Mobile Propulsion
RWTH Aachen University
Forckenbeckstraße 4, 52074 Aachen
Phone: +49 (241) 80 – 48148

Would you like to know more?

Rajesh Kallur, M.Sc.
kallur@mmp.rwth-aachen.de
Phone: +49 (241) 80 - 48018