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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

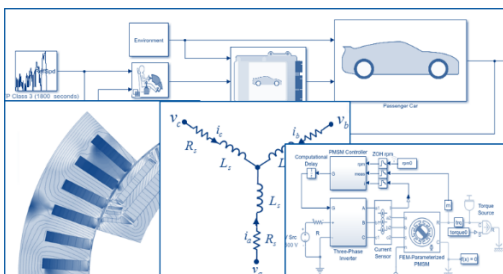
Your benefits:

- 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

We are the Teaching and Research Area Mechatronics in Mobile Propulsion (MMP). Our heart beats for the technology of tomorrow's mobility. Around the interdisciplinary topics of mechanics, electrical engineering and information technology, we research sustainable and demand-oriented drive and vehicle concepts. We bring the future into drives!

You want to know more about us? Then you will find more information under the following links:

- [Who we are](#)
- [What drives us](#)
- [What we research](#)
- [Where we are involved](#)
- [How we bring research into teaching](#)



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Would you like to know more?

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