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

Start: from now

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

Compact multi-state electromechanical contactor using compliant mechanisms for high power reconfigurable motors

For a novel traction motor and drive solution with improved efficiency, one-time mode changeover, reconfiguring switch on the AC high power line between motor and inverter is required. Typically, power semiconductor solid-state switches are used due to smaller size and faster switching times compared to electromechanical contactors/switches/relays. However, electromechanical contactors tend to have lower losses.

Your tasks:

- Establish state of the art in electromechanical contactors and compliant mechanisms for reconfigurable electromagnetic devices
- Propose design solutions considering compact size, response time and electromagnetic behavior
- Build a prototype with the help of RWTH Speed Funds

Your competences:

- Mechanics and design
- Interest in mechatronics and electromechanical actuators

Your benefits:

- Opportunity to innovate and make in the exciting field of mechatronics, cool mechanisms and 3D rapid prototyping

Would you like to know more?

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