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Bachelor Thesis / Master Thesis

Start: from now

- Faculty 1 - Mathematics, Computer Science and Natural Sciences
- Faculty 4 - Mechanical Engineering
- Faculty 6 - Electrical Engineering and Information Technology

Reinforcement Learning based operating strategy of mobile fast charging robot

The increasing demand for charging infrastructure can be supplemented at some locations by flexible charging infrastructure in the form of mobile charging stations. In order to operate these at optimal costs, intelligent charging and discharging strategies are required.

In this thesis you will develop a simulation model for a mobile charging robot or a fleet of charging robots. You will intensively deal with reinforcement learning approaches. You will use these to train agents to learn an optimal operational strategy within the simulation model.

Your skills and interests:

- You ideally already have experience in the programming language Python
- You are interested in artificial intelligence
- You want to help develop intelligent solutions for the integration of electromobility into the energy system

Would you like to know more?

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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!

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Teaching and Research Area
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