Announcement in our research group

Digitalization

for a

Master-/ Bachelorthesis

Thesis in the field of Machine Learning and Digital Twin

Along with the ongoing trend of digitalization, a profound change is taking place in the industrial sector. The importance of the topic is reflected in the urgency with which government and industry are supporting and driving these developments. In the field of mechanical engineering, the increased integration of information and communication technology opens up diverse potentials for the optimization of existing products and the restructuring of classic development processes. In the research group Digitalization of the Institute of Fluid Power Drives and Systems these potentials are explored and transferred into fluid power applications. In this context, there are opportunities for various theses, among others in the following topics:

- Condition Monitoring and Predictive Maintenance through Machine Learning
- Data processing and black-box modeling
- Modeling of digital twins and simulation studies
- AI-supported control of hydraulic systems
- Assistance systems for the design of fluid power systems
- Automation of test benches and execution of measurements

You should bring along great interest and a motivated work attitude. An affinity for digital technologies is advantageous. Depending on the task, basic knowledge of fluid technology may be required.

Do you want to contribute to these highly topical and future-oriented research subjects? Then feel free to contact me by mail or phone to discuss the possible contents of a thesis.