Master's/Bachelor's/Semester thesis position
Digital Twin Modelling for Research Tractor

The Chair of Agrimechatronics at Technical University of Munich (TUM)
invites for applications for a thesis position on the topic of Digital Twin Modelling for Research Tractor. M/F/D. Applications from disabled persons with essentially the same qualifications will be given preference. TUM strives to raise the proportion of women in its workforce and explicitly encourages application from qualified women.

About the topic

We have a variety of projects related to our chairs research tractor. To allow for quicker and cheaper testing, even with limited access to the vehicle we would like to model a digital twin of this tractor in adequate software suite. This includes integrating the CAD model as well as fitting suitable engine, transmission, steering and chassis models. Depending on the student's interests and length of the thesis sensors, hydraulics and communications systems are also possible extensions. The final simulation can then be compared to real driving data. Since the software is limited to a specific computer (licenses), a large part of the work would need to be done in the chairs offices either in Freising (Dürnast) or in Garching.

About us

The Chair of Agrimechatronics (Prof. Oksanen) studies especially Intelligent Machines for Agriculture. The research themes include topics like tractors and other agricultural vehicles and robots, tractor-implement automation, communication technologies for vehicles, navigation, guidance and planning, positioning systems, model-based control of mechatronic systems, drives and power systems, and robotic implements.

Your qualifications

- Experience with CAD Modelling
- Basic understanding of
    - Vehicle dynamics
    - Drivetrains
    - Dynamics simulations

Application process

Send your application in English by email to lukas.pindl@tum.de with title "Master's thesis position application" including

- A cover letter (for example elaborating your background, interests and motivation)
- Curriculum vitae (CV) in English
- PDF copies of earned university degrees and transcripts of individual grades

More information   **https://www.lse.ls.tum.de/en/amx/home/**