

## Master's thesis position

# In-Field Collaborative Routing for Agricultural Operations

### The Chair of Agrimechatronics at Technical University of Munich (TUM)

invites for applications for a Master's thesis position on the topic of **In-Field Collaborative Routing for Agricultural Operations**. 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

**As a prerequisite for autonomy and as an aid for drivers, collaborative routing can improve the efficiency of in-field operations. A special focus of the thesis will be routing in Controlled Traffic Farming systems during harvest. You will research existing algorithms, choose the best-suited algorithm and investigate the performance of the system in simulations.**

### 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.

### We offer

As a part of our team you will have an excellent opportunity to develop your skills in a supportive and inspiring environment. Our work is interdisciplinary, international, and in-depth, but also practical. We offer a possibility to obtain broad and profound expertise, both theory and practise, in the field of agricultural applications, technology and research.

### Your qualifications

- A Bachelor's level university degree
- Coding skills (C++, Python, MATLAB or Rust)
- Basic knowledge in routing algorithms

### Application process

Send your application in English by email to **henri.hornburg@tum.de** 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

Data Protection Information: When you apply for a position with the Technical University of Munich (TUM), you are submitting personal information. Data protection information according to Art.13 of the data protection basic regulation (DSGVO) for the collection and processing of personal data in the context of your application. By submitting your application, you confirm that you have acknowledged the above data protection information of TUM.