We have been working on an experimental industrial environment for robotic experiments. This needs to first be modeled for simulation and then replicated on real robots. The robotic system will be deployed with the Robotic Operating System (ROS), relying mainly on the MoveIt ROS package for tasks such as environment mapping, robot navigation, obstacle avoidance, and robotic arm movements. Given a complex mission, the robot must accomplish it with adequate performance and energy efficiency.

**Focus of Research:**
- Deploying and configuring the ROS packages
- Set up simulated environments and real robots
- Run experiments and assist in interpreting, plotting, and presenting the results

**Your Profile:**
- Currently pursuing advanced studies at the University of Stuttgart
- Programming experience in Python and/or C++
- Comfortable in using a version control systems like Git for collaborative development
- Motivated and proactive
- Previous experience with basic robots, with simple sensors and actuators
- Knowledge of basic electronics is an advantage

**We offer:**
- Participation in current topics in autonomous robots
- Flexible working hours
- Participation in ISW internal events
- Opportunity to work with real robots

**Send your application to:**

Jun.-Prof. Dr. rer. nat. Andreas Wortmann  
Institut für Steuerungstechnik  
der Werkzeugmaschinen und Fertigungseinrichtungen  
der Universität Stuttgart  
Seidenstr. 36, 70174 Stuttgart  
andreas.wortmann@isw.uni-stuttgart.de

The University of Stuttgart would like to increase the proportion of women in the academic field and is therefore particularly interested in applications from women. Severely disabled persons are given priority in the case of equal suitability.