

IDP, SA, MA (also Informatics)

Localization and Mapping for Autonomous Motorsport



The Indy Autonomous Challenge (IAC) was the first fully autonomous wheel-to-wheel race in history. Teams from ten international universities implemented individual software stacks and deployed these to identical vehicles to compare software performance. It promotes collaboration between academia, industry, and government to push the boundaries of technology. Global competition brings new challenges for localization: high speeds, high dynamics, and environments where GPS is not available raise challenges for localization software.

Are you interested in mapping and localization and have a passion for motorsport?

Then apply for a student research project, research internship, or thesis in the TUM Autonomous Motorsport Team. We offer you the opportunity to work on exciting topics in the field of localization and mapping. The goal is to bring your approaches and algorithms to the real race car. Become part of the TUM team's success and participate as a student in races at the Las Vegas Motor Speedway, the IMS, the venue of the Indy500, or the legendary F1 track in Monza. Your software can become an integral part of the overall software of the TUM Motorsports Team. Does that sound good? Apply for a position!



Qualifications:

You should be able to independently familiarize yourself with the topic and the tools and have a structured way of working. You should be motivated to work in a fast-paced environment and eager to collaborate with a highly motivated team of students and Ph.D. candidates. Ideally, you have programming experience in Python and C++ and knowledge of the ROS2 framework.

Contact:

If you are interested in this project, send your CV and transcript of records with a few sentences about your motivation to:

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