

STELLENAUSSCHREIBUNG

Bachelorarbeit, Diplomarbeit, Masterarbeit, Studentische Abschlussarbeit

IMPROVING EFFICIENCY IN HUMAN-ROBOT INTERACTION USING DIFFERENT COMMUNICATION CHANNELS

UMFELD

Human-robot collaboration is becoming increasingly important in industrial environments. Nowadays robots are able to work safely close to humans, since they are capable of avoiding obstacles as well as understand and predict human motions. In this collaborative scenario, the communication between humans and robots is a fundamental aspect to achieve good efficiency and ergonomics in the task execution. The aim of the work is to use different channels of communication in order to make the robot's intentions understandable to the human and make him able to react to those information.

AUFGABEN

- Investigation of existing approaches in the field of Human-Robot communication
- Development of a system to represent the robot goals and planned trajectories (e.g. Augmented Reality)
- Study how the human can communicate its intentions (e.g. gestures, speech)
- Integration of the system developed with a robot able to detect collisions and replan its motion in realtime
- Evaluation of the system developed

WIR BIETEN

- Hardware and robot systems
- Pleasant working atmosphere in the immediate vicinity of Campus South
- Student-friendly and flexible working hours
- An exciting, interdisciplinary working environment
- Opportunities to participate in research projects and publications

WIR ERWARTEN

- Good C++ programming skills.
- Previous knowledge in the field of robotics.
- Independent thinking and working

- Good knowledge of English
- Motivation and commitment

IHRE BEWERBUNG

Informal application by email.

Description of previous programming experience.

WEITERE INFORMATIONEN

Start: from now on

Supervising Institute at KIT: Supervising Institute | Prof. Rüdiger Dillmann

- Themen-Schwerpunkt: Automation und Robotik, Software-Entwicklung
- Studiengänge: Elektrotechnik, Informatik, Verwandte Studiengänge
- Kontakt: M.Sc. Gabriele Bolano, bolano@fzi.de, Tel.: +49 721 9654-215