

STELLENAUSSCHREIBUNG

Masterarbeit, Studentische Abschlussarbeit

AUGMENTED REALITY FOR HUMAN-ROBOT COLLABORATION

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 augmented reality tools to communicate the robot's intentions to the human in order to make its goals and planned trajectories easily understandable.

AUFGABEN

- Investigation of existing approaches for augmented reality.
- Development of an augmented reality system to represent the robot goals and planned trajectories.
- Integration of the system developed with a robot able to detect collisions and replan its motion in real time.
- 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: Informatik, Verwandte Studiengänge
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