Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Institute of Computer Science
Department VII
Robotics and Telematics
Prof. Dr. Klaus Schilling

Robotics I

Lectures: 4 hours per week, English
Exercises: 2 hours per week, German and English
ECTS: 8

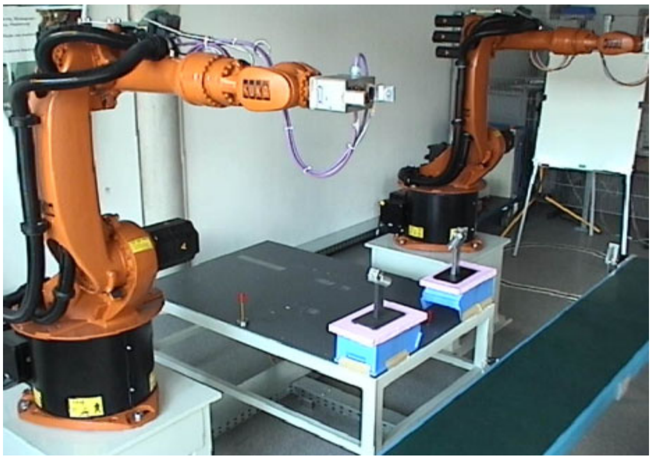
Description:

Robots play a key role in several fields such as industrial production and transportation, hazardous areas, medicine, and space. Nowadays they even start emerging into our ever day life in the form of various service robots.
The lecture „Robotics I“ deals with the technical and mathematical basis of manipulators as well as mobile robots. The contents include

- direct and inverse kinematics as well as dynamics
- path planning and control
- sensor systems

For this lecture, you should bring basic knowledge from linear algebra. Basics from physics and differential equations are useful, however not mandatory.

Exercises are performed in a weekly schedule with written tasks as well as programming tasks.
Three additional exercises are conducted with our Kuka manipulators where you will learn to use and program the robots such that both of our robots can perform a cooperative task in an industrial scenario.



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Literature

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