



Kolloquiums-Reihe des Instituts für Informatik

Freitag, 25.10.2019, 15:00 Uhr
Institut für Informatik (D5), Albrecht-von-Groddeck-Str 7,
Seminarraum 105 (T1)

Georg Kunert
Hochschule Wismar

Human-Robot Collaboration with Reinforcement Learning in context of assembly

Manufactural assembly is becoming increasingly complex. At the same time, efforts to increase efficiency are on the rise. Among other things assembly processes where humans and robots work together offer great potential for improvement. Aim of the project is to enable the robot control to independently learn a behaviour strategy to react on the stochastic behaviour of humans and the entire environment with the help of Reinforcement Learning. The presentation gives an overview of the first progress in the PhD project with focus put on the robot control, presently without taking into account the human. It is shown how a robot control can be generated from a learned behaviour strategy, how reinforcement learning can be accelerated and how the learning effort of the learning process can be reduced by using several agents.