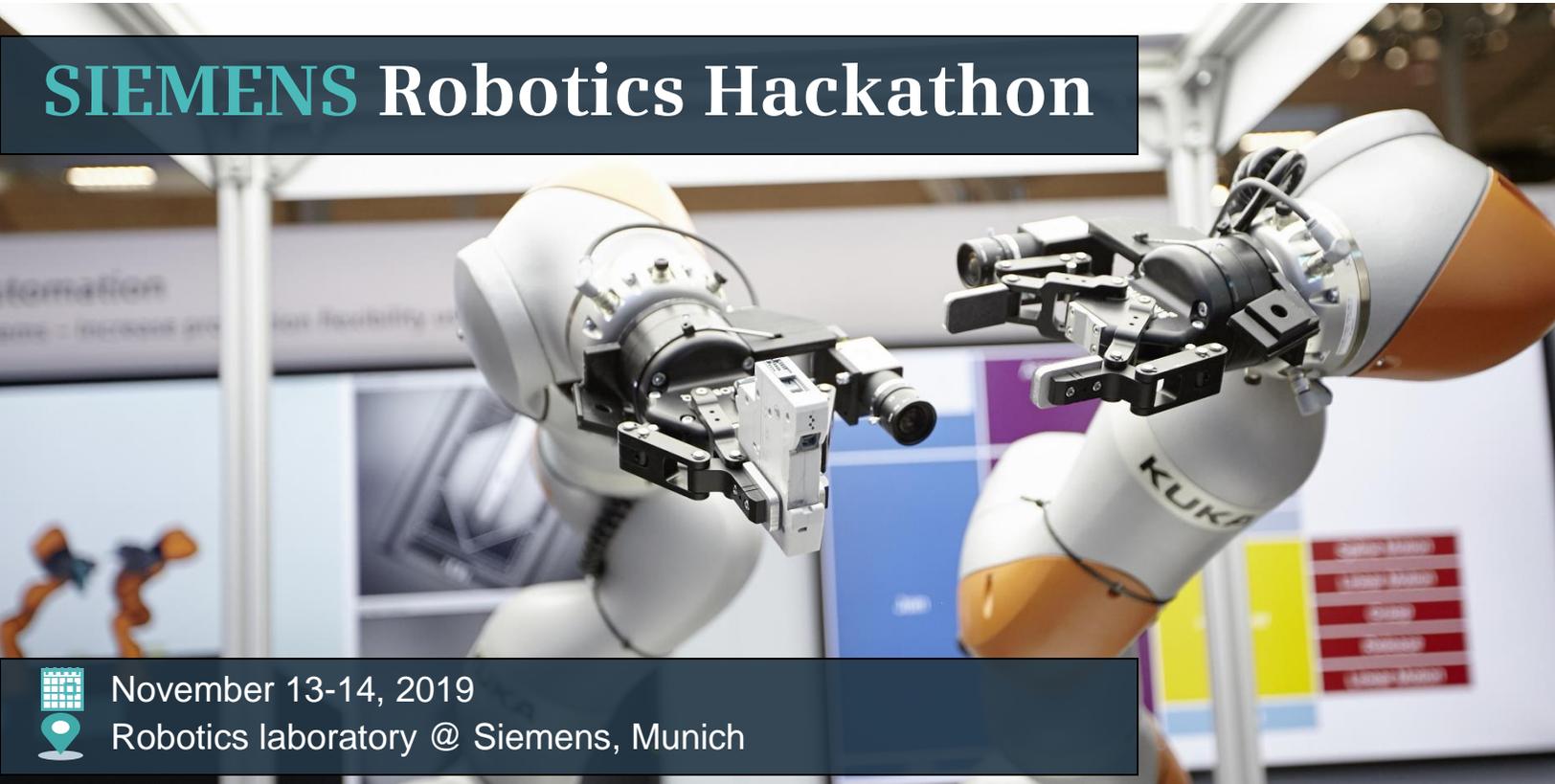


SIEMENS Robotics Hackathon



November 13-14, 2019

Robotics laboratory @ Siemens, Munich

Siemens Robotics Hackathon – An event part of the European Robotics Week (#EWR2019)

This Hackathon is part of the European Robotics week, offering over 1000 events and activities, all about robotics, automation and education.

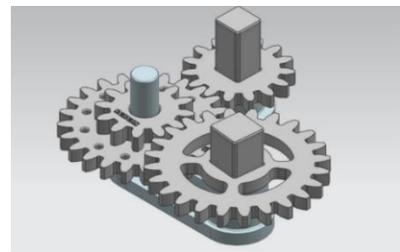
Intuitive robot programming for robot assembly

Robot assembly typically involves numerous, complex tasks, from perceiving objects to object manipulation. The challenges in robotic real-world applications include robust perception to precisely and repeatedly determine an object's shape and position to grasp and manipulate it. Object manipulation tasks such as inserting tight fitting objects or even twisting a bolt into place require complex interaction skills.

We strive for innovative approaches to address these problems in an intuitive way on the example of the assembly of a set of gears.

Do you want to find solutions to be applied to the highest challenge of industrial application?

Be part of it and participate in our intuitive multi-robot programming challenge!



When?

Wednesday 13.11.2019

09:00	Introduction & Lab Tour
10:30	Let's start hacking!
12:00	Lunch break
18:00	Pizza break

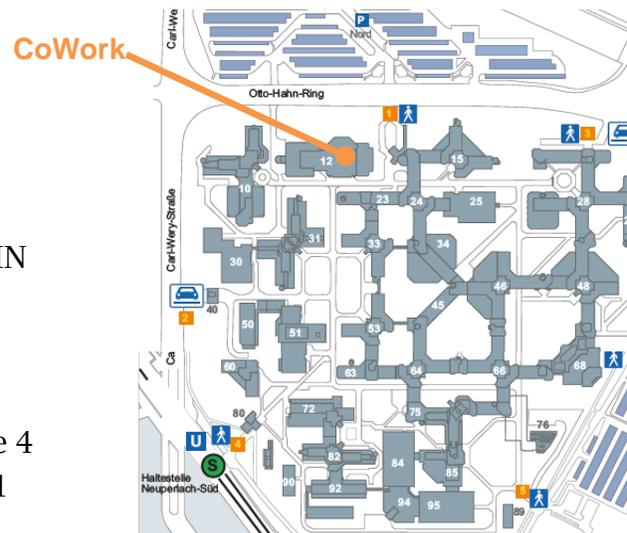
Thursday 14.11.2019

09:00	Start of day 2
12:00	Lunch break
15:00	Presentations of results and demos on real multi-robots
16:30	(Optional) Campus colloquium "Future Energy Systems"

Where?

Siemens AG
Otto-Hahn-Ring 6
Building 12, CoWork area, room BIG BRAIN
81739 Munich

Via S-Bahn Neuperlach-Süd take Entrance 4
Via car park on north side take Entrance 1



What is the goal of the hackathon?

The goal is to solve assembly tasks in small groups via intuitive multi-robot programming in an industrial environment, including

- Perception and localization of assembly parts
- Force-torque based robot motion control
- Facilitate smart robot behaviors
- Multi-robot assembly

Why to join?

Simply because it is awesome to work on, with and in robotics and because of:

- Hands-on experimenting with the latest technical means in robotics
- Personal exchange in the community and within the company
- Insights into industrial challenges and the development of technical solutions

Who can join?

All students who are enthusiastic about robotics with the following profile:

- Programming skills, preferably in Python required
- Basic robotics knowledge and experience with ROS is advantageous but not essential

How to apply?

Please register online at <https://cki-tum.de/hackathon>

The deadline for the application is **November 1st**. Apply now!

Attention: Limited number of participants!

In case of any questions please contact Schmitt.Philipp@siemens.com.

What does the participation cost?

The participation in the hackathon is **free-of-charge**. We provide all food and drinks during the event.

What do you need to bring?

- Please bring your own laptop (Linux, Windows, Mac) with VmWare Player installed. We provide a VmWare Virtual Machine with all relevant software preinstalled.
- Curiosity for people and challenges, passion, excitement, endurance