

# Seminar & Workshop: Robot Motion Planning

### **Summary**

✓ Course dates: September 7 – 8, 2023

✓ Course duration: 2 days

✓ Language: English

✓ Location: Online

✓ Certificate: Certificate of Participation

✓ Format: Online

✓ Lecturer: Dr. Andreas Orthey

✓ Price: 1235 €

#### **Course overview**

This course deals with the motion planning of robots and the corresponding algorithms. Participants will gain an overview of how to move arbitrary robots from A to B. This includes topics on the exact problem formulation, the selection of efficient algorithms and the optimization of robot motions. Finally, participants get an introduction to the implementation and solution of a planning problem with the corresponding software libraries.

#### **Course content**

- ✓ Basics of motion planning and formulation of problems
- ✓ Definition of sample-based planning algorithms with a view to differences and guarantees
- ✓ Introduction to the OMPL software library
- ✓ Application of planners to dynamic problems
- ✓ Application of planners to complex tasks in multi-robot applications
- ✓ Programming planning scenarios in Python

This course will be delivered in the form of short lectures and interactive assignments.

## **Dates**

September 7 to 8, 2023 (virtual classroom sessions).

#### **Booking and contact**

Register here: <a href="https://www.academy-tu.berlin/en/courses/short-courses">https://www.academy-tu.berlin/en/courses/short-courses</a>

Should you have any questions, please contact the TU Berlin Academy Team at: +49 30 4472 0232 or via email: info@academy-tu.berlin. We hope to see you In Berlin - or online - very soon!