2025/08/09 09:58 1/2 GMAR Robotics School 2021

GMAR Robotics School 2021

Draft; do not publish

Organization

• Date: tentatively 2021-08-23 - 2021-08-27 (Monday-Friday)

• Location: Villa Blanka; Innsbruck

• Topic: Mobile Manipulation

Audience:

- advanced Master and young doctoral students in subject areas related to robotics (engineering, computer science, etc.)
- 15-25? participants, depending on the location
- prerequisite: familiarity with ROS, to be specified; recommend tutorials

Concept:

- hands-on, making things work on real robots
- technical lectures concentrated near the beginning of the week
- hacking starting day one, growing in importance as the course advances
- hacking in small teams dedicated to specific functionalities
- some application talks towards the end, not relevant to the hacking

Implementation Goal:

- SLAM, autonomous navigation
- vision-based grasping of (known and/or unknown?) objects from known locations
- placing objects in designated locations
- execution of high-level plans involving the above capabilities

Robots:

- 1 mobile base + arm platform for each group of 3-4 students
- or, 1 UIBK mobile manipulator (homebrew base with DOBOT M1? Franka Emika Panda)
- or, TUW Honda mobile manipulator

Schedule

Each session lasts 90 minutes; blank = hacking.

Sessions M	londay	Tuesday	Wednesday	Thursday	Friday
Morning I (8-10)	nanipulators	Robot Vision (Jean-Baptiste Weibel)	(Antonio Paolillo)	Industry event + Robotics talks event in Alpbach . Departure at 8.30am, return 15.30pm	Task Planning (Gerald Steinbauer)
Coffee break					
J - J	Inematics Andreas Müller)		Hacking: Visual Servoing for Pick and Place		Hacking: Task Planning
Lunch					
Afternoon I (V	ontrol Wolfgang	Human-Robot Interaction and Safety Aspects (Mathias Brandstötter)	Introduction to ROS Navigation Stack (Matteo Saveriano)		Hacking: Team competition
Coffee break					
1	nacking: Set-up		Hacking: Navigation in ROS		
Dinner or	n site	on site	on site	in town	

^{*} confirmed

From:

https://iis.uibk.ac.at/ - IIS

Permanent link:

https://iis.uibk.ac.at/events/2020-gmar-robotics-school?rev=1629274890

Last update: 2021/08/18 10:21



https://iis.uibk.ac.at/ Printed on 2025/08/09 09:58