Module title		Abbreviation
Practical Robotics and Telematics		10-LURI=PTEL-232-m01

Module coordinator		Module offered by
holder of the Chair of Computer Science XVII		Institute of Computer Science

ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

In this internship, students develop interdisciplinary solutions from the fields telecommunication, automation and computer science. The great advancements in the fields of telecommunication and informationprocessing allow to offer ever more sophisticated services over long distances. By combining these disciplines with control and automation techniques in the field of telematics, new possibilities arise to acquire data remotely from a distance and to react accordingly. Possible focus topics: - automation, industry 4.0 - mobile systems, sensor data processing - space flight

Intended learning outcomes

In this internship, students gather and deepen their skills in developing telecommunication solutions for automation systems or mobile robots. They learn acquiring fitting sensor data and evaluate it online (in realtime) and react with actions accordingly. They learn programming close to the hardware and master common libraries, for example the Robot Operating System (ROS).

Courses (type, number of weekly contact hours, language — if other than German)

P (8)
Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Report on practical course (approx. 20 pages) with presentation (30 to 45 minutes) and subsequent discussion on the topic
Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

300 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Master's degree (1 major) Aerospace Computer Science (2023)