

Module title		Abbreviation
International Summer School		10-I=ISS-182-m01
Module coordinator		Module offered by
holder of the Chair of Computer Science VII		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
	graduate	--
Contents		
<p>The summer school programme is for computer science students and students of aerospace technology-related study paths. The summer school addresses advanced students, Master's students and PhD candidates. The participants should be experienced in C/C++ and should have a good mathematical understanding. Part of the courses will be implementing a PID-control in C++. The lectures will include an introduction to information technology and devices in satellites, real time control systems, power supply in aeroplanes and satellites, control of quadcopters, space systems, space environment, orbital mechanics and attitude control, satellite communication, and mission operations.</p>		
Intended learning outcomes		
<p>The participants will learn about spacecraft system design, the related hardware and software. This course consists of lectures and opportunities for practical application of the topics covered.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
R (6) Module taught in: 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)		
<p>a) written examination (approx. 60 to 90 minutes) or b) project (project documentation approx. 20 pages with presentation 30 to 45 minutes and subsequent discussion on the topic) or c) oral examination of one candidate (approx. 20 minutes) or d) oral examination in groups (groups up to 3 candidates, approx. 15 minutes per candidate)</p> <p>Language of assessment: English</p>		
Allocation of places		
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Additional information		
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Workload		
150 h		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
Master's degree (1 major) Satellite Technology (2018)		