Module title			Abbreviation
Control Principles of Modern Communication Systems			10-I-RK-212-m01
Module coordinator		**Module offered by**	
holder of the Chair of Computer Science III		Institute of Computer Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

The module teaches control principles in the Internet, in computer networks and modern communication systems, central and distributed mechanisms for control and data exchange, architecture and basic mechanisms in current broadband and home access networks. Simple methods of assessing performance and an introduction to traffic theory are given.

Intended learning outcomes

The students have extensive knowledge of the structure, architecture and control principles of modern communication systems and can apply the knowledge to evaluate the systems and protocols in simulations and measurements. They also get to know basic methods for theoretical analysis.

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

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

written examination (approx. 60 to 120 minutes)
if announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).
Language of assessment: German and/or English
creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: every year, winter semester

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

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Module appears in

Bachelor's degree (1 major) Computer Science and Sustainability (2021)
First state examination for the teaching degree Gymnasium Computer Science (2025)
Bachelor's degree (1 major) Computer Science and Sustainability (2025)
Teaching degree Gymnasium Erweiterung Computer Science (2025)