

Module description

Module title					Abbreviation	
Control Principles of Modern Communication Systems					10-l=SKS-252-m01	
Module coordinator				Module offered by	Module offered by	
holder of the Chair of Computer Science III				Institute of Computer Science		
ECTS	Meth	od of grading	Only after succ. c	Only after succ. compl. of module(s)		
5	nume	rical grade				
Duration		Module level	Other prerequisit	Other prerequisites		
1 semester		undergraduate				
Contents						

- Control mechanisms of computer networks and modern communication systems
- Control mechanisms implemented and deployed on the Internet such as the Internet of Things (IoT)
- Overlays and decentralized mechanisms
- Broadband access networks
- Mobile and wireless communication systems
- Introduction of analytical performance evaluation

Intended learning outcomes

The students possess advanced knowledge regarding the structure, architecture and control mechanisms of modern communication systems and are able to apply it to evaluate systems and protocols within simulations and measurement setups. In addition, students have gathered insights of the basic methodologies in the field of analytical performance evaluation.

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

Additional information

Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, ES, LR, IN

Workload

150 h

Teaching cycle

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

Module appears in

Master's degree (1 major) Computer Science (2025)