Module description

Module title
Selected Topics in Internet Technologies

Abbreviation
10-I=AKIT-152-m01

Module coordinator
holder of the Chair of Computer Science III

Module offered by
Institute of Computer Science

ECTS
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Method of grading
numerical grade

Only after succ. compl. of module(s)
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Duration
1 semester

Module level
graduate

Other prerequisites
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Contents

Selected topics in computer communication, for example design aspects of future internet structures: setup and control structures of the internet, multicast protocols, protocols for multimedia communication, optical networks, control mechanisms for redundant and real-time communication networks, p2p networks, ad-hoc networks, or -- new concepts and technologies in mobile communication: digital modulation, signal propagation, channel coding, modern transmission technologies (adaptive modulation and coding, hybrid ARQ, OFDM, MIMO), mac layer, mobileIP, routing in ad-hoc networks, vertical handover, UMTS IP multimedia subsystem, or -- planning and management methods in telecommunication networks: planning methods (forward engineering, reverse engineering), network management paradigms (central and decentral), framework for network management (IETF traffic engineering, ITU-T TMN, OSI management), planning and management methods (IP management mechanisms, network design, measurement, acquisition and evaluation of traffic and performance data, visualisation, result handling, simulation and analysis of networks), management tools, outlook and perspectives, or -- other current topics.

Intended learning outcomes

The students have a knowledge of advanced and current topics in the management and design of modern wired and wireless communication systems.

Courses

(V (2) + Ü (2))

Method of assessment

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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Referred to in LPO I
(examination regulations for teaching-degree programmes)
§ 22 II Nr. 3b

Module appears in
First state examination for the teaching degree Gymnasium Computer Science (2015)