

NETWORKS AND DISTRIBUTED SYSTEMS LAB

Networked Systems Lab

"Networked Systems Lab" is a lab work for **B.Sc./M.Sc.** students of Computer Science (and related study programs). It is held as a scientific project (▶ individual (<https://lsf.ovgu.de/qislsf/rds?state=verpublish&status=init&vmfile=no&publishid=155207&moduleCall=webInfo&publishConfFile=webInfo&publishSubDir=veranstaltung>) or as a ▶ team (<https://lsf.ovgu.de/qislsf/rds?state=verpublish&status=init&vmfile=no&publishid=155209&moduleCall=webInfo&publishConfFile=webInfo&publishSubDir=veranstaltung>)).

or as a ▶ team (<https://lsf.ovgu.de/qislsf/rds?state=verpublish&status=init&vmfile=no&publishid=155209&moduleCall=webInfo&publishConfFile=webInfo&publishSubDir=veranstaltung>)).

Instructor: Prof. Dr. David Hausheer

Assistants:

Hours per week: 0 + 4

Credits: 6

Thursday, 23.04.2020, 11:15 - 12:45

Kick-off

Date: Note: Due to the current situation, the kick-off will be held online as Zoom-Meeting together with the SDN Lecture Introduction. Please find more information in the ▶ SDN Moodle.

Languages: English/German

Introductions Slides

- ▶ The introduction slides with the topics will become available after the kick off.

Course Description

The course deals with cutting edge development topics in the area of networked systems. The topics are selected according to the specific working areas of the participating researchers and convey technical and basic scientific competences in one or more of the following topics:

- ▶ Software-defined networking
- ▶ Network functions virtualization
- ▶ Network security
- ▶ Peer-to-peer and overlay networks
- ▶ Mobile networks, video streaming
- ▶ Energy-efficient networking
- ▶ Network simulation
- ▶ Economic aspects (network economics, incentive mechanisms)

Competencies

The ability to solve and evaluate problems in the area of design and development of communication networks and applications.

Acquired competences are:

- ▶ Requirements engineering, design, implementation, and testing of scalable, efficient, and reliable software components and communication protocols for applications in communication networks
- ▶ Application of object-oriented programming techniques
- ▶ Writing of software documentation and project reports
- ▶ Presentation and demonstration of project result

Requirements

- ▶ Students of BSc/MSc CV/INF/IngINF/WIF/DigiEng
 - ▶ Solid programming experience
 - ▶ Solid knowledge of communication protocols
 - ▶ Basic courses of the first 4 semesters are required. Knowledge of lectures Communication and Networks are recommended.
 - ▶ Interest to develop challenging solutions for communication networks and applications
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