

## 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=173086&moduleCall=webInfo&publishConfFile=webInfo&publishSubDir=veranstaltung>) or as a ▶ tea

(<https://lsf.ovgu.de/qislsf/rds?state=verpublish&status=init&vmfile=no&publishid=173085&moduleCall=webInfo&publishConfFile=webInfo&publishSubDir=veranstaltung>) ).

**Instructor:** Prof. Dr. David Hausheer

**Assistants:** Marten Gartner, Tony John, Thorben Krüger, Lars-Christian Schulz

**Hours per week:** 0 + 4

**Credits:** 6

**Thursday, 08.04.2021, 11:15 - 12:45**

**Kick-off Date:** Note: **The kick-off will be held online 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 t 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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