Department: 07 Computer Science and Mathematics
Course title: Computer Networks
Hours per week (SWS): 4
Number of ECTS credits: 5
Course objective: Obtain basic knowledge of networking principles and protocols; Understanding the domain-specific terms; Ability to design and implement computer networking applications; Ability to trace and analyse network traffic and to identify typical networking problems.
Prerequisites: Software development / programming in Java (for programming assignments in exercises of the course)
Recommended reading:
- Andrew S. Tanenbaum, Computer Networks, Prentice Hall International
Teaching methods: lecture (2 SWS) + exercises (2 SWS)
Online support (Moodle), Powerpoint slides/animations
Exercises: combination of theoretical questions and programming assignments
Assessment methods: written exam (90 minutes), prerequisite: passing the exercises
Language of instruction: English
Name of lecturer: Prof. Dr. Alexandru Soceanu
Email: alexandru.soceanu@hm.edu
Link: https://w3-o.cs.hm.edu:8000/public/module/59/
Course content: basics of computer networking, ISO/OSI and Internet layers, network topologies, typical network protocols on the application layer (e.g., HTTP, SMTP, DNS), connection-oriented and connectionless transport protocols (UDP, TCP), mechanisms for reliable data transfer, flow control and congestion control, Internet Protocol in Version 4 and 6 (IPv4, IPv6), current trends in computer networking.
Remarks: 