



UNIVERSITY OF CAGLIARI

DIEE - Department of Electrical and Electronic Engineering

Infrastrutture ed Applicazioni Avanzate nell'Internet

Course Introduction



Speaker

- Prof. Luigi Atzori
 - Professor of Telecommunications
 - My webpage
 - https://unica.it/unica/it/ateneo_s07_ss01.page?contentId=SHD30924
 - Research Interests
 - IoT: architecture, social networks, resource allocation
 - Softwarized networks and Quality of Experience management
- Supporter by
 - Alessio Raccis, technician at DRSI, advanced network configuration
 - Simone Porcu, PhD student: expertise on Quality of Experience

Course organization

- Background
 - IP, TCP, UDP
 - Routing
- Major applications
 - HTTP, DASH
 - VoIP, WebRTC
- Quality requirements
 - Quality of Service
 - Quality of Experience
- QoS-aware architectures
 - QoS tools
 - IntServ, DiffServ, MPLS
- Softwarization of network components
 - SDN, NFV, virtualization, slicing, ICN
- QoE Management

Sources and tests

- Slides, made available before each lesson
- Books
 - Suggested for each subject
 - “Foundations of Modern Networking , SDN, NFV, QoE, IoT, and Cloud”, William Stallings, Addison Wesley
 - “Software Defined Networks: A Comprehensive Approach”, Paul Goransson, Chuck Black, Timothy Culver
 - SIP: Understanding the Session Initiation Protocol, Fourth Edition (Telecommunications) by Alan B. Johnston (2015-11-30), Alan B. Johnston, Hartech house, ISBN-13: 978-1608078639
- Other articles that will be made available at
 - Section “Materiale didattico” on my homepage
- Exams
 - Oral: either in two steps or one step, based on the students needs
 - Project/presentation (max 13 points)
- Possible meetings with companies