

Information and Communication Systems

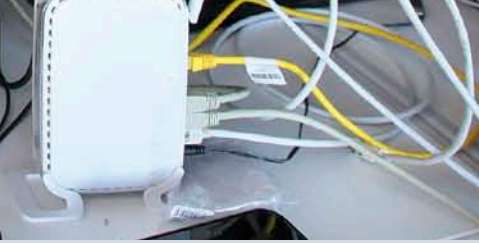


“Information and communication technologies have large impact on major industries. Besides in the classical fields of telecommunications and networking ICT will provide the base technology for several new areas like smart grids, building automation, medical engineering, remote sensing, traffic control and ambient assisted living. Thus, graduates of the ICS Master Programme are well-prepared to start a career in a wide range of businesses.”

Prof. Dr. Bauschert, Chair for Communication Networks



CHEMNITZ UNIVERSITY
OF TECHNOLOGY



► What is Information and Communication Systems all about?

This English-language Master's programme covers a wide range of modules with the focus on future challenges of the increasingly globalised field of Information and Communication Systems. Digitisation and the increasing penetration of private and occupational areas of life by Information and Communication technologies will extensively shape the information society of the future. Students at Chemnitz University of Technology are qualified to solve engineering problems and to work in research and development as well as in management positions. Focal points of the degree course are Communications Engineering, Microwave Engineering and Photonics, Circuit and System Design, Communication Networks, Digital Signal Processing and Circuit Theory.

► Career Opportunities

Graduates are offered excellent career opportunities both in academia and in the global Information and Communication industry. Also occupational activities in management are possible.

Graduates are well prepared for working at:

- communication equipment manufacturers
- network operators
- consulting companies
- research institutes
- automotive companies
- aerospace companies



“The Chemnitz University of Technology takes pride in announcing its new state-of-the-art, four-semester English-language, Master’s degree course in Information and Communication Systems. In today’s world, there is practically no engineering application that does not contain elements of Information systems and technology. The universal scope of this field makes it an indispensable and futuristic branch of electrical engineering. The new master’s course, the university, and the city of Chemnitz – a city with an illustrious technological heritage – together offer a most promising academic and cultural experience with unparalleled value-for-investment. We look forward to processing your application.”

Prof. Dr. Madhu Chandra, Dean of the Department

▶ Course Content

Lectures are given by professors with a sound background from industry and research who formerly worked at Nokia Siemens Networks, Loewe, Alcatel-Lucent, Daimler and the German Aerospace Center.



Basic Modules

- ▶ Next Generation Internet
- ▶ Simulation and Performance Analysis of Communication Networks
- ▶ Network Simulation Lab
- ▶ Network Planning
- ▶ Optical Communication and Networks
- ▶ Basics of Microwave and Photonic Systems
- ▶ Multisensorial Systems
- ▶ Mobile and Car-to-X Communication
- ▶ Mobile Localization and Navigation
- ▶ Advanced Communications Engineering
- ▶ Wireless Broadband Data Reception
- ▶ TV and Video Signal Processing
- ▶ 3D Image Processing with Embedded Systems
- ▶ Components and Architectures of Embedded Systems
- ▶ EDA-Tools

Focal Modules

- ▶ Mobile Networks
- ▶ Self-Organizing Networks
- ▶ Network Security
- ▶ IP Networking Lab
- ▶ Communication Networks Lab
- ▶ Antennas and Wave Propagation
- ▶ Aerospace Remote Sensing
- ▶ Image Processing and Pattern Recognition
- ▶ Field Bus Systems
- ▶ Digital Systems
- ▶ Design of Heterogeneous Systems
- ▶ Design for Testability for Circuits and Systems
- ▶ Software Environments of Smartphone Applications
- ▶ Optimization (for non-Mathematicians)
- ▶ Presenting and Discussing Research Findings Level 1 (Intermediate)
- ▶ Presenting and Discussing Research Findings Level 2 (Advanced)
- ▶ Management Accounting
- ▶ Communication and Leadership
- ▶ Research Project

Module Master's Thesis

4th semester

► General Information

Requirements of admission: Bachelor's degree in Information and Communication Technology, Electrical Engineering or Computer Science or any other equivalent university degree with regard to content

Teaching language: English (Europ. B2, Unicert 2 or equivalent required)

Standard period of study: 4 semesters

Degree: Master of Science (M. Sc.)

Enrolment: Usually in the winter semester

► Application

German students: Applications can be submitted via internet. Please contact the registrar's office if you wish the application form for study admission to be sent to you or if you require further information.

International students: Please use www.uni-assist.com for your application.

Further Information

Chemnitz University of Technology

Registrar's office

Straße der Nationen 62, room 043

09111 Chemnitz

☎ + 49 (0) 371 531-33333

✉ studentensekretariat@tu-chemnitz.de

www.tu-chemnitz.de

► Specialised course guidance

You may find an overview over all specialised course advisors here

www.tu-chemnitz.de/studienberater

► Student Advisory Service

Chemnitz University of Technology

Student Advisory Service

Straße der Nationen 62, room 046

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