"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. Thomas Bauschert, Chair for Communication Networks
What characterizes the Master degree program Information and Communication Systems?

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.

“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 Programme, 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. Madhukar Chandra, Head of Chair
Degree Structure

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 (1st-3rd semester)**
- Multisensorial Systems
- Mobile and Car-to-X Communication
- Mobile Localization and Navigation
- Advanced Communications Engineering
- Basics of Microwave and Photonic Systems
- Optical Communication and Networks
- EDA-Tools
- Components and Architectures of Embedded Systems
- Next Generation Internet
- Simulation and Performance Analysis of Communication Networks
- Network Simulation Lab
- Network Planning
- TV- and Video-Signal Processing
- Wireless Broadband Data Reception
- Computer Vision

**Focal Modules (1st-3rd semester)**
- Image Processing and Pattern Recognition
- Aerospace Remote Sensing
- Antennas and Wave Propagation
- Design of Heterogeneous Systems
- Design for Testability for Circuits and Systems
- Software Environments of Smartphone Applications
- IP Networking Lab
- Communication Networks Seminar
- Network Security
- Mobile Networks
- Self-Organizing Networks
- 3D Image Processing on Embedded Systems
- Digital Systems
- Numerical Simulation with MATLAB
- Optimization (for non-Mathematicians)
- English (Level C1 of CEFR)
- Management Accounting
- Communication and Leadership
- Research Project

**Module Master Thesis (4th semester)**

**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
General Information
Admission requirements: in general vocationally-qualifying university bachelor’s degree in Information and Communication Technology, Electrical Engineering, Computer Science or equivalent degree program with regard to content, English language proficiency at Level B2 and German language proficiency at level A2 according to the CEFR Standard period of Study: 4 semesters
Degree: Master of Science (M.Sc.)
Start of the degree program: usually winter semester
Language of tuition: English

For information concerning all aspects of studies please access:
www.tu-chemnitz.de/studentenservice/index.php.en

Online application for German students:
www.tu-chemnitz.de/studienbewerbung

Online application for international students:
www.uni-assist.de

Further information:
Technische Universität Chemnitz
Student Service Point
Straße der Nationen 62, room 043
09111 Chemnitz
+49 371 531-33333
studentensekretariat@tu-chemnitz.de

Academic Course Guidance
For an overview of all academic counsellors including contact details please access:
www.tu-chemnitz.de/studienberater

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