



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Information and Communication Systems

Chemnitz University of Technology • Chemnitz

Overview

Degree	Master of Science in Information and Communication Systems
Teaching language	<ul style="list-style-type: none">English
Languages	Courses are held in English (100%).
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	15 July for the following winter semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	<p>This English-language Master's course of study covers a wide range of modules with a focus on future challenges in the fields of information and communication systems.</p> <p>All students have to pass particular general modules that are important for the understanding of the following deepening opportunities.</p> <p>Building on this, the study programme provides the opportunity to deepen subject-related knowledge in one of the following majors:</p> <ul style="list-style-type: none">Information Processing TechnologiesCommunication Systems <p>Each of these tracks includes a number of different specific compulsory subjects as well as additional elective ones.</p> <p>The basics for both are provided by the general compulsory modules, which are as follows: Design of Digital Systems, Advanced Mobile and V2X Communication, Digital Signal Processing, Basics of Microwave and Photonic Systems and Next Generation Internet.</p> <p>Depending on the availability, the study programme offers the opportunity to do a research project at the university or a research internship during the third semester (students select one of the two options).</p>

Course Details

Course organisation

The students have to pass all of the required compulsory subjects and additional elective subjects of 48 CP in total.

Compulsory subjects for all students (27 CP):

- Design of Digital Systems (semester 1, lecture/seminar/lab)
- Advanced Mobile & Car to X Communication (semester 1, lecture/lab)
- Digital Signal Processing (semester 1, lecture/seminar)
- Basics of Microwave & Photonic Systems 1 (semester 1, lecture/seminar/lab)
- Next Generation Internet (semester 1&2, lecture)

The students have to choose between two different majors, either Information Processing Technologies or Communication Systems. Depending on this decision, they have to pass specific compulsory and elective subjects.

Compulsory subjects in Information Processing Technologies:

- Design of Heterogeneous Systems (semester 2, lecture/seminar/lab)
- Multisensorial Systems (semester 1&2, lecture/lab)
- Computer Vision 1 (semester 1, lecture/seminar)

Compulsory subjects in Communication Systems:

- Basics of Microwave & Photonic Systems 2 (semester 2, lecture/seminar/lab)
- Simulation & Performance Analysis of Communication Networks (semester 2, lecture/lab)
- Advanced Mobile Networks (semester 1&2, lecture/seminar)

Students majoring in Information Processing Technologies have to pass at least two of the following elective subjects:

Verification of Dig. Systems – 5 CP, Test of Digital & Mixed-Signal Circuits – 5 CP, Applied Circuit Design & Testing – 8 CP, DSP 2 – 5 CP, Computer Vision 2 – 5 CP

Students majoring in Communication Systems have to pass at least two of the following elective subjects:

Wireless Broadband Data Reception – 5 CP, Optical Communication & Networks – 5 CP, Aerospace Remote Sensing – 6 CP, Antenna Eng. – 5 CP, Network Planning – 5 CP

Further elective subjects in technical field:

Dig. Components & Architectures for Data Processing – 5 CP, Mobile Localisation & Navigation – 5 CP, Image Processing & Pattern Recognition – 5 CP, Video Signal Processing – 3 CP, Programming & Data Analysis – 5 CP, IP Networking & Software Defined Networking Lab – 3 CP, Communication Networks Seminar – 3 CP

Further elective subjects in non-technical field:

Optimisation for Non-Mathematicians – 6 CP, Resource Efficiency from an Economic Perspective – 5 CP, Communication & Leadership – 5 CP

Elective modules in research and internship:
Students select one of these two options.

Research Internship – 30 CP
Research Project (at the university) – 10 CP

Master's thesis

(compulsory, final semester) – 30 CP

A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none">• Projects with partners in Germany and abroad
Course-specific, integrated German language courses	No
Course-specific, integrated English language courses	No

Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	All students have to pay a semester contribution of approx. 280 EUR. This fee also covers the semester ticket, which permits you to use buses and trams in Chemnitz during the semester. International students will receive the bank account details after admission with which they can transfer the semester contribution. However, the fee can also be paid after arrival in Chemnitz (by German bank card or transfer).
Costs of living	Approx. 934 EUR per month to cover personal expenses
Funding opportunities within the university	Yes
Description of the above-mentioned funding opportunities within the university	Incoming students can apply for different funding opportunities via the International Office of Chemnitz University of Technology: https://www.tu-chemnitz.de/international/incoming/stipendien/index.php.en .

Requirements / Registration

Academic admission requirements	<ul style="list-style-type: none">• Bachelor's degree in Electrical Engineering and Information Technology ("Bachelorstudiengang Elektrotechnik und Informationstechnik") of Chemnitz University of Technology• Equivalent degree (individual decision by a board of examiners)
Language requirements	English: <ul style="list-style-type: none">• IELTS from 5.5• TOEFL iBT (Internet-based Test): min. 72 points• TOEFL PBT: min. 543 points• TOEFL ITP Level 1: min. 543 points• Cambridge Preliminary English Test + Result Distinction (PET)• Cambridge First Certificate in English: Grade B or C (FCE)

- Cambridge English: Business Vantage (BEC Vantage), Legal (ILEC), Financial (ICFE)
- Cambridge IGCSE: 1st or 2nd Language on average B2
- Pearson PTE Academic: min. 59 points
- TOEIC: Listening and Reading Test min. 785 points, Speaking Test min. 160 points, Writing Test min. 150 points
- telc B2
- UNlcert II
- Study in English studies
- completed degree with English as the language of instruction
- proof of professional qualification as interpreter/translator

Applicants from countries with English as official/educational or native language are not required to submit a proof of English language proficiency within their application.

German (according to the general rules for enrolment at the university):

- A1 (Goethe or ÖSD) to be provided with the application
- A2 (CEFR) to be provided by the end of the third semester

(CEFR: Common European Framework of Reference for Languages)

Application deadline 15 July for the following winter semester

Submit application to Applications may be submitted online at <https://www.uni-assist.de/en>.
It is not necessary to send certified copies. Please note that uni-assist must receive all application documents by the application deadline.

Services

Possibility of finding part-time employment Students can find offers for part-time jobs, work placements etc. on the job portal offered by the Career Service of Chemnitz University of Technology: <https://www.tu-chemnitz.de/career-service/jobboerse/>.

Accommodation The "Studentenwerk" Chemnitz-Zwickau runs several student residences. International students can apply for a single room in one of the residences. The prices depend on the size and furnishings of the room and vary between 210 EUR and 320 EUR: <https://www.swcz.de/en/student-housing/our-halls-of-residence/>.

Career advisory service The Career Service of Chemnitz University of Technology supports students during their studies as well as graduates entering their professional life. The Career Service provides a platform for companies and institutions to present themselves: <https://www.tu-chemnitz.de/career-service/index.php.en>.

Support for international students and doctoral candidates

- Buddy programme

Contact

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🌐 Course website: https://www.tu-chemnitz.de/etit/studium/stugang/index.php.en?page=m_is

📘 <https://de-de.facebook.com/TUChemnitz>

🐦 <https://twitter.com/TUChemnitz>

🌐 <https://www.linkedin.com/school/technische-universitat-chemnitz/>

📷 <https://www.instagram.com/tu-chemnitz/>

📺 <https://www.youtube.com/user/tu-chemnitz>

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International Programmes in Germany - Database

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Disclaimer

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