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*Automotive Software Engineering • Chemnitz University of Technology • Chemnitz* ........................................... 2
Master's degree

Automotive Software Engineering
Chemnitz University of Technology • Chemnitz

Overview

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<td>Teaching language</td>
<td>English</td>
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<td>Languages</td>
<td>Courses are held in English (100%). Participants can choose to write the Master's thesis in English or German.</td>
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<td>Programme duration</td>
<td>4 semesters</td>
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<td>Beginning</td>
<td>Winter and summer semester</td>
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</table>
| Application deadline       | 15 July for the following winter semester  
  15 January for the following summer semester |
| Tuition fees per semester in EUR | None |
| Combined Master's degree / PhD programme | No |
| Joint degree / double degree programme | No |

Description/content

The Master's programme in Automotive Software Engineering is a computer science-oriented programme and requires a Bachelor's degree in one of the following fields:

- Applied Computer Science
- Computer Science
- Computer Science & Engineering
- Information Science & Engineering
- Information Technology
- Computer Engineering
- Computer Hardware
- Electronics & Communication Engineering (with significant selection of computer science lectures)
- Computer & Communication Engineering (with significant selection of computer science lectures)
- Electronics & Telecommunication Engineering (with significant selection of computer science lectures)

Holders of one of these Bachelor's degrees are designated candidates for this Master's programme. Developers of automotive software systems will be confronted with highly complex hardware/software systems in their future occupation. Highly important fields of application for these systems are vehicles and aeroplanes of all kinds. Designing these systems requires specialised skills in the area of software engineering and system design. These skills are taught in...
The Automotive Software Engineering Master’s programme is research-oriented. A major reason for this is its integration into the main research field of the faculty: Embedded Self-Organising Systems (ESS). Research-related teaching contents are incorporated directly into this Master’s programme. Additionally, in the third semester, a research-relevant seminar and a research internship or project are part of the curriculum. The degree programme is structured in such a way that students have an exceptionally large range of options in which to specialise, e.g. in Automotive Software Platforms or in Software Verification.

## Course Details

### Course organisation

The Master’s programme in Automotive Software Engineering is structured into four semesters. Lectures can be selected from the following learning modules:

1. Module Automotive Software Technology (20 ECTS)
2. Module Embedded Systems (20 ECTS)
3. Module Real-Time and Communications Systems (10 ECTS)
4. Module Computer Science (15 ECTS)
5. Module Key Competence (5 ECTS)
6. Module Research Seminar (5 ECTS)
7. Module Research Internship (15 ECTS)
8. Module Master’s Thesis (30 ECTS)

### Integrated internships

A research internship is to be completed during the third semester. The research internship is offered by our university within current research projects and has a mandatory duration of 12 weeks. Research internships can also be undertaken in industrial companies with a mandatory duration of 24 weeks. Programme advisers will assist students in finding an appropriate internship.

### Course-specific, integrated German language courses

Yes

### Course-specific, integrated English language courses

No

### The course of study can be taken entirely online

No

### Digital learning and teaching modules

- Customised LMS called OPAL with the following functions: chat, self-test, Wiki, online-registration, providing different documents and materials

### Description of e-learning elements

Chat, self-test, Wiki, online-registration, providing different documents and materials, forum, self assessment

### Participation in the e-learning course elements is compulsory

No

### Can ECTS points be acquired by taking the online programmes?

No

### Can the e-learning elements be taken without signing up for the course of study?

No
Costs / Funding

Tuition fees per semester in EUR

None

Semester contribution

All students have to pay a semester contribution of approx. 260 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 a blank bank transfer form with which to transfer the semester contribution. However, the fee can also be paid after arrival in Chemnitz via German bank card or bank transfer.

Costs of living

Approx. 680 EUR per month to cover personal expenses

Funding opportunities within the university

No

Requirements / Registration

Academic admission requirements

A Bachelor's degree in one of the following:

- Applied Computer Science
- Computer Science
- Computer Science & Engineering
- Information Science & Engineering
- Information Technology
- Computer Engineering
- Computer Hardware
- Electronics & Communication Engineering (with significant selection of computer science lectures)
- Computer & Communication Engineering (with significant selection of computer science lectures)
- Electronics & Telecommunication Engineering (with significant selection of computer science lectures)

Language requirements

German:
Courses to obtain the required level of German language (A2 by the end of the third semester) are included within the curriculum for non-native speakers. Students providing a certificate of A2 level (CEFR) may choose advanced language courses or subject studies.

English:

- IELTS from 5.0
- TOEFL Internet-based: min. 87 points
- TOEFL paper-based: min. 500 points
- TOEFL computer-based: min. 173 points
- Cambridge: First Certificate in English
- TOEIC: 785-944 points
- Confirmation of having had English as the language of instruction
- Confirmation of studies of the English language
- Translator/ interpreter degree or certificate

Applicants from countries with English as the official or native language are not required to submit a proof of English language proficiency with their application.
| Application deadline | 15 July for the following winter semester  
| 15 January for the following summer semester |
| Submit application to | Technische Universität Chemnitz  
c/o uni-assist e.V.  
11507 Berlin  
Germany |

## Services

| Possibility of finding part-time employment | Within the Faculty of Computer Science, there are many opportunities to work as a tutor for basic Bachelor's degree courses. Additionally, student assistant jobs for software development and automotive software projects are available. |
| Accommodation | The Student Union Chemnitz-Zwickau runs several student residences. International students can apply for a single room or for a bed in a double room in one of the residences. The prices depend on the furnishings of the room and vary between 160 EUR and 260 EUR. More information can be found at: [http://www.swcz.de/de/wohnen/in-chemnitz/](http://www.swcz.de/de/wohnen/in-chemnitz/) |
| Specific specialist or non-specialist support for international students and doctoral candidates | • Buddy programme |

## Contact

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Faculty of Computer Science  

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Disclaimer
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