

5. Supportive – You're given plenty of personalized support, starting with your application here. Every student's situation is unique and we try to find answers for everyone.

6. Personal – You will never be an anonymous student here. There are counselors in the faculties and in the International Office, who are on hand to help you in any way you need. Additionally, international student organizations provide study support as well as social events.

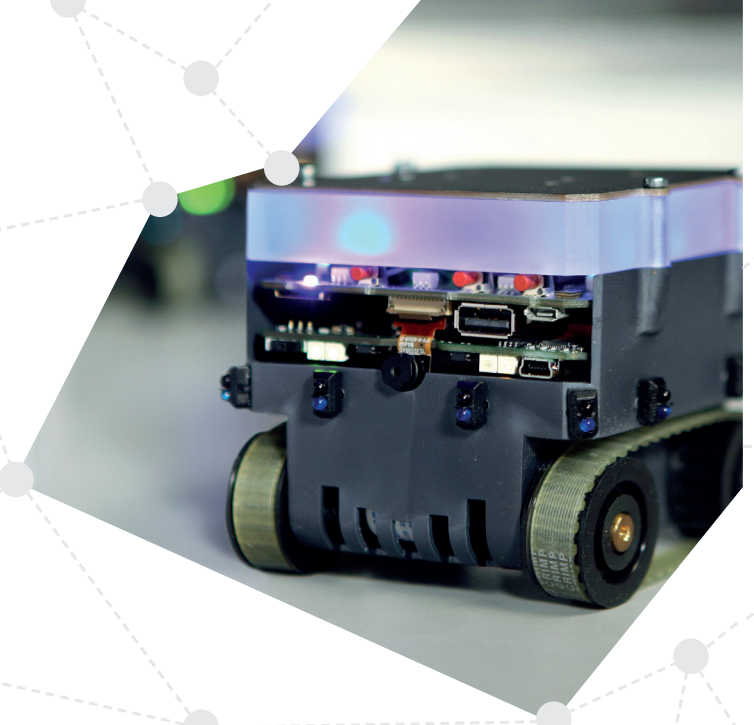
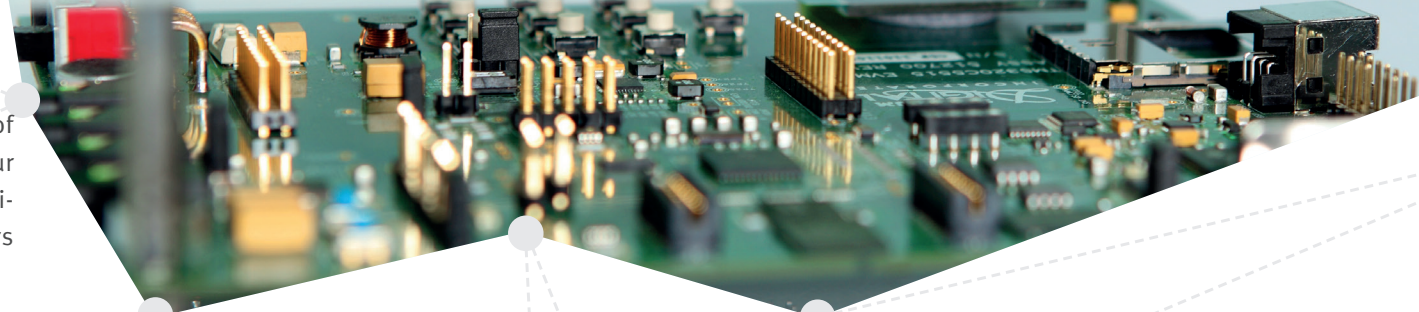
7. Communicative – International students are invited to attend German-language courses before they commence their studies. For our English-language Master degree programs you do not need to speak German, but a little knowledge of the language will help make your stay here more comfortable.

8. Comfortable – Paderborn offers high-quality student housing at reasonable prices. The International Office supports you in finding a place to live that meets your needs.

9. Practical – The companies located in and around Paderborn offer numerous

opportunities for internships as well as topics for a thesis conducted in cooperation with the university. We will help you gain your first job experience during your studies.

10. Fair – All students have equal opportunities at Paderborn University. There is also very little hierarchy between students and professors. Students are expected to be independent and to manage their own course of study. You will easily receive the support you need if you come prepared and motivated.



10 GOOD REASONS FOR PADERBORN UNIVERSITY

1. Professional – We are not only interested in ensuring you successfully complete your degree. Finding a good job is just as important. Our network with companies and research facilities in the region and beyond will provide you with opportunities during and after your studies.

2. Affordable – There are no tuition fees in North Rhine-Westphalia, Germany, not even for international students. Our state-funded system offers a very good standard of higher education. Although a

degree is easy on your finances, it is not as easy on your brain: you will need to study hard!

3. Compact – A campus university means that you will find everything you need (library, housing, cafeteria, shopping, entertainment) within walking distance.

4. Safe – No one gets lost in Paderborn: it is a safe and tolerant city. Most people can communicate in English and are happy to help you. You do not need to worry about walking home alone.

Contact

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Faculty for Computer Science,
Electrical Engineering and Mathematics
Warburger Str. 100
33098 Paderborn
Germany

study-advice.ce@uni-paderborn.de

www.cs.upb.de/ce/en

MASTER PROGRAM COMPUTER ENGINEERING

WELCOME TO THE WORLD OF COMPUTER ENGINEERING

Computer Engineering is a modern engineering science at the intersection of Computer Science and Electrical Engineering, combining two disciplines to work on solutions for future computer systems. Computer engineers deal with analysis, design and evaluation of computer systems including hardware and software as well as with the application of computers to technical systems.

Computer Engineering can be found everywhere: The autopilot on the plane and the brake assist system in the car, multimedia systems, or medical devices such as modern high-tech prostheses. These are just a few examples of how Computer Engineering affects your daily life.

Our Master's program in Computer Engineering provides graduates with the necessary in-depth understanding of modern computing technologies and is an excellent starting point for a career in the exciting field of information technology. Come and get to know our departments, the university and the city of Paderborn! We are looking forward to welcoming you.

Our Master's program in Computer Engineering is offered in cooperation between the department of Computer Science and the department of Electrical Engineering and Information Technology. Both departments obtain a strong international reputation and are highly successful in attracting research grants and cooperating with industry partners, which creates plenty of opportunities for future-oriented and industry-related projects.

We offer an excellent education environment with the most modern technical infrastructure and laboratories, as well as excellent support of students, with small groups in exercises and labs.

CONTENT AND STRUCTURE

Besides completing mandatory modules in Computer Science and Electrical Engineering, students specialize in one of the following focus areas:

- **Embedded Systems**
- **Nano- and Microelectronics**
- **Computer Systems**
- **Communication and Networks**
- **Signal, Image and Speech Processing**
- **Control and Automation**

The program also includes a two-semester project group, where teams of about six to twelve students work on an advanced research and development project and practice professional and social skills.

The module scientific work style includes research-oriented seminar work and prepares students for their Master's thesis. The Master's thesis is related to the chosen focus area and lasts a full semester. The program takes 2 years (4 semesters) and is fully taught in English.

CURRICULUM – MASTER COMPUTER ENGINEERING

Semester	1	2	3	4
	Focus area Module 1 (6 LP)	Statistical Signal Processing (6 LP)	Circuit and System Design (6 LP)	Advanced Computer Architecture (6 LP)
	Focus area Module 2 (6 LP)	Focus area Module 3 (6 LP)	Elective Module 1 (6 LP)	Project group Computer Engineering (18 LP)
	Focus area Module 4 (6 LP)	Elective Module 2 (6 LP)	Elective Module 3 (6 LP)	
	Work plan (5 LP)	Masterarbeit (25 LP)		

- Focus area modules
- Elective modules
- Mandatory modules ET
- Mandatory modules CS

COSTS

We do not charge any tuition fees!

Costs include a mandatory social fee and living expenses. The social fee is approx. 310 Euro per term and includes the Semesterticket, which gives you free access to regional public transport such as buses and trains. Living expenses include expenses for accommodation and subsistence, and are approx. 800-950 Euro per month.

CAREER OPTIONS

Through the excellent education at Paderborn University, Computer Engineering graduates have many career options. Computer engineers hold specialist and manager positions in research and development, project planning and manufacturing, measurement and test engineering, service and sales, management, and also education and training. The interdisciplinary qualification acquired at the intersection of Computer Science and Electrical Engineering is in large demand in especially these areas:

- **Computer systems**
- **Communication systems, e.g., mobile communication**
- **Nano/Microelectronics**
- **Embedded systems, e.g., automotive, aerospace, medical**
- **Microsystems**
- **Manufacturing and process automation**
- **Robotics**

ENTRY REQUIREMENTS

The prerequisites for being granted admission to the Master's program in Computer Engineering are a Bachelor's degree in Computer Engineering from Paderborn University or a similar Bachelor's degree from another college or university, proven English language competence, and, for international applicants, a GRE Revised General Test or a very good or good CGPA in the Bachelor program.

As Computer Engineering focuses on topics at the interface between Electrical Engineering and Computer Science, it is important that you have a solid background in both disciplines. Your Bachelor studies should include at least 20 credits in Mathematics, 30 credits in Computer Science, 30 credits in Electrical Engineering and 12 credits for a Bachelor project.

After submitting your application we will check whether your Bachelor studies fulfil these requirements.

International students can prove sufficient knowledge of English by, for example, TOEFL iBT 80 points, TOEFL paper & pencil 550 points, Cambridge Certificate of Advanced English grade B or British Council IELTS, minimum band 6.5. In the GRE Revised General Test, we expect as a general rule at least 157 points in „Quantitative Reasoning“ and at least 4.0 points in „Analytical Writing“.

International applicants have to apply online via the uni-assist portal. The uni-assist web site lists Paderborn University under „Universities (Master)“ and heading „North Rhine-Westphalia“. Before registering, please check whether you meet the admission requirements. The application deadline is 31st May for starting classes with October, and 30th November for starting classes with April.

