

WHY STUDY ELECTRICAL SYSTEMS ENGINEERING IN PADERBORN?

Our department's researchers play a leading role in their scientific communities as editors of prestigious journals and organizers of important conferences and workshops. Our research is complemented and supported by various well-established, collaborative projects with industrial partners. Thanks to our researchers prominent status and our close collaboration with industry, we are able to offer our students a rich curriculum that always integrates state-of-the-art techniques and technologies and strikes a sound balance between theory and practice. Consequently, our graduates are highly sought after by companies and other research institutes and enjoy an array of outstanding job opportunities.

The above can only give you a brief glimpse of everything our department has to offer to students, researchers, and industrial partners. For a more in-depth look at our various education programs (in German as well as in English), research activities, research centers and our collaborative research labs with industrial partners, we invite you to explore our website where you can find detailed descriptions of our efforts in research and education:

<http://ei.uni-paderborn.de/ms-ese/>



FURTHER INFORMATION

About the Master's program:

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Secretary:

Astrid Haar
Phone: +49 52 51/60 5292

Studying in Paderborn as an international student/Application:

International Office
www.uni-paderborn.de/international

KEY FACTS

Start of classes: every April and October
Duration: 2 years
Teaching Language: English
Entry requirements: B.Sc. in electrical engineering or related subject, English language proficiency exercises, practical coursework, examinations, Master's thesis
Assessment: exercises, practical coursework, examinations, Master's thesis

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MASTER OF SCIENCE
ELECTRICAL SYSTEMS ENGINEERING

STUDY
ELECTRICAL SYSTEMS
ENGINEERING



UNIVERSITÄT PADERBORN
Die Universität der Informationsgesellschaft

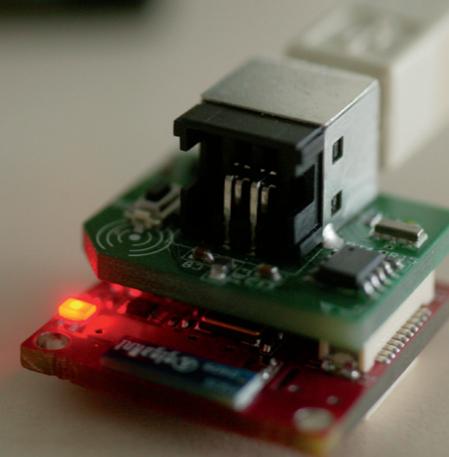
www.ei.upb.de

WELCOME!

You are interested in pursuing a Master's degree in Electrical Systems Engineering? The Department of Electrical Engineering and Information Technology (EEIT) offers an excellent Master's program. Fifteen professors, among them three women and about 122 other faculty members belong to our department. It may not be among the largest EEIT departments in Germany, but it is certainly a top-ranking one, both in research and education. According to our opinion an outstanding education can only be achieved in an excellent research environment; furthermore, the excellent research carried out in our department would be impossible without the support of our students and research assistants. For nearly 40 years the work in our department has been well-guided by this principle. Our past and present success is evidenced by our international reputation and the high research and education rankings regularly bestowed upon our department, especially those from the German Science Foundation (DFG) and the CHE. A recent highlight was the bestowal of the prestigious Innovation Award of North Rhine-Westphalia to two professors of our department.

Come and get to know us, our department, the university and Paderborn!

We look forward to meeting and working with you!



MASTER'S PROGRAM: CONTENT AND STRUCTURE

Course Objectives

The Master's program Electrical System Engineering (MS ESE) at the University of Paderborn provides you with a solid background in theory and fundamental concepts of electrical systems design. It gives you insights into current trends and developments and ample opportunities for practical experience. Upon completion of the MS ESE program, students are awarded an M.Sc. in Electrical Systems Engineering, opening up the possibility of further work towards a Dr.-Ing. or PhD.

Specializations

The MS ESE program offers two specializations: signal & information processing and electronics & devices. Depending on the choice, the curricula of the first three semesters differ.

The first semester, starting in April or October, is related to both specializations with courses in system theory, modeling & simulation, and engineering management. Additionally, core courses for the specific specialization offered (statistical systems, fields & waves, algorithms, software engineering, ...).

The second and third semesters are composed of a mixture of elective and mandatory courses depending on the chosen specialization. The signal & information processing section offers courses on statistical learning & pattern recognition, digital image processing, optimal & adaptive filters, robotics, wireless communications, simulation of electromagnetic fields, and others. The electronics & devices branch offers courses on cir-

cuit & system design, analogue/mixed signal IC design, testing of digital ICs, system packaging, hardware/software co-design, optical electronics, nanoelectronics, nanotechnology, physical electronics, power electronics, mechatronics, devices simulation, and novel devices and components. The courses for both sections are accompanied by a broad range of complementary labs and seminars.

ENTRY REQUIREMENTS

Academic Prerequisites

If you are thinking about studying ESE at the University of Paderborn, you will have to meet a number of requirements.

- 1) You will need to hold a school leaving certificate or similar qualification which qualifies you for admission to a German university.
- 2) Furthermore, you need to hold a bachelor's degree in electrical engineering or a related field. Your final grade in this course should be 3.0 (according to the German marking system) which is above 70 % of the credits given or better.

You will be admitted to the MS ESE program if the responsible examination board confirms the equivalency of your bachelor's degree.

There are no entrance examinations.

Language Requirements

Before you can start your academic studies, you need to prove that your English language skills are up to university standards. You can enroll in the MS ESE program if you have a very good command of the English language. To prove your language skills, the following certificates are accepted:

- a bachelor degree gained in Australia, Great Britain, Ireland, Canada, New Zealand, USA and some other English speaking countries
- a German bachelor degree obtained in a study program that has been accredited as an English language program
- TOEFL with a minimum result of 550 (pencil and paper) or 79 (internet)
- or some equivalent qualification such as the Cambridge First Certificate (FCE)

COSTS

Costs include a social fee (including Semesterticket*) and living expenses.

Social fee and Semesterticket* (per term)	195 Euro
Living expenses (per month)	approx. 600 Euro

* That ticket permits you to use public transportation (bus and train) in the region for free.

CAMPUS AND CITY LIFE

The University of Paderborn is a campus university within walking distance to downtown. A large number of student residences are located on campus. The campus provides a wide range of services and facilities, including an excellent "Mensa" (dining services), sports facilities and a small theater.

Despite its very modern service and entertainment oriented appeal, Paderborn also offers opportunities for the historically inclined, for example a 700-year old cathedral overlooking downtown. Paderborn is known to be a very safe place and at the same time offers lots of attractions to students to enjoy themselves.

