

A good place to study and research



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Faculty of Electrical Engineering and Information Technology
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COURSES

Bachelor's courses

- Electromobility
- Electrical Engineering and Information Technology
- Information Technology - Smart Systems
- Mechatronics
- Biomedical Engineering
- Systems Engineering and Engineering Cybernetics
- Industrial Engineering for Electrical Engineering and Information Technology

Master's Courses

- Electrical Engineering and Information Technology (in German or English)
- Electrical Energy Systems - Renewable Energy
- Mechatronics
- Medical Systems Engineering
- Sustainable Energy Systems
- Systems Engineering and Engineering Cybernetics
- Industrial Engineering for Electrical Engineering and Information Technology

COURSE STRUCTURES

Electrical engineers are designing and shaping modern high-tech industry and the information society with their work and ideas. The professional fields and career opportunities for graduates of electrical engineering and information technology are wide ranging. Electrical engineering, microsystems technology, microelectronics, communications technology, transport technology, power electronics, drive system technology, sensor system technology, cognitive systems and medical technology are only a few areas of application in the wide-ranging field of electrical engineering and information technology.

The electrical engineering and information technology programme is science-oriented and conveys comprehensive theoretical and practical principles and method-oriented specialised knowledge. This kind of education guarantees our graduates the necessary flexibility and thus lasting career prospects in our fast-paced, constantly changing technological society.

Students should enjoy mathematics and natural sciences and have the ability to think systematically, assume a mathematical and scientific approach and apply this in solving problems.

The first part of the programme covers the fundamentals of mathematics, physics, and electrical engineering and information technology. The second part of the course conveys in-depth knowledge in the specialist fields of automation technology, electrical energy technology, information technology, communications technology, microsystems technology, sensor technology, and medical systems. Thanks to a broad range of elective subjects, students are able to select the focus of their studies according to their personal interests and inclinations.

The standard course duration for the Bachelor's degrees is seven semesters. Building on this, a further degree can be obtained on one of the consecutive Master's programmes.



APPLICATIONS AND ADMISSION REQUIREMENTS

The general university entrance qualification, a relevant higher technical education entrance qualification, or the equivalent recognized university admission qualification is required for the Bachelor's programmes. A Bachelor's degree is required for the Master's programmes. Prior to commencing a Bachelor's degree programme, we recommend that students undertake an eight-week long general placement. There are no restrictions on admission to the Faculty of Electrical Engineering and Information Technology.

Application deadline

Application deadline for winter semester is the 15th of July, Application deadline for summer semester is the 15th of January. (For exceptions visit: www.feit.ovgu.de).

Submit applications to

www.uni-assist.de

www.ovgu.de/en/international.html

Contacts

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FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY



For further information for accommodation
www.ovgu.de/en/orga.html

PROGRAMME INFORMATION

Faculty of Electrical Engineering and Information Technology



www.eit.ovgu.de ▶▶

In terms of research and teaching, Otto von Guericke University Magdeburg focuses on engineering and the natural sciences, economics and business, plus medicine. In each case mathematics reliably provides the essential foundations. The university, which was established in 1993, also believes that the humanities provide an essential complement for meeting the challenges of today's knowledge society.

Around 14,000 students, including over 3,000 international students, are enrolled in over 100 programs across the nine faculties. As a dynamic and cosmopolitan university, OVGU offers state-of-the-art facilities, excellent student support and a practical, hands-on education. The university's main areas of research and knowledge transfer are interdisciplinary in nature and strengthened by the neighboring non-university research institutes.

KEY RESEARCH AREAS

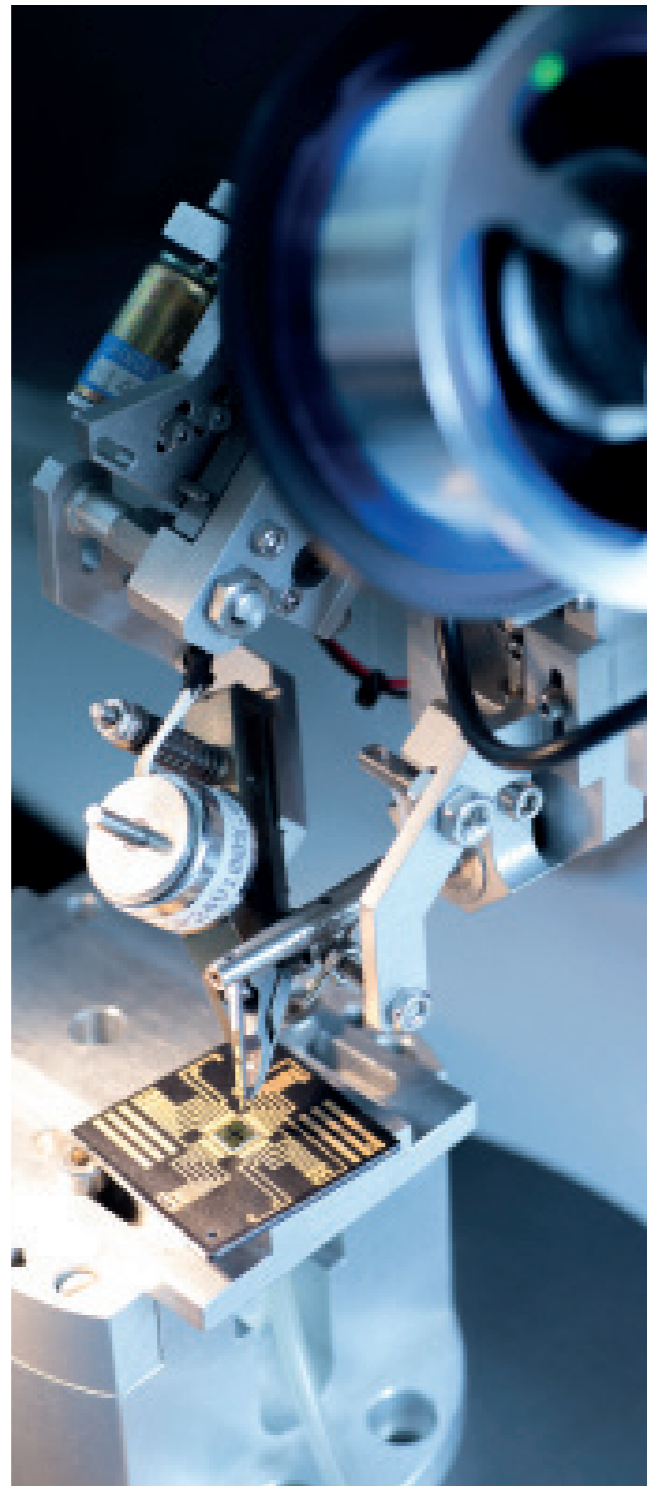
- Dynamic Systems and Biosystems Technology
- Neurosciences

KEY KNOWLEDGE TRANSFER AREAS

- Automotive
- Digital Engineering
- Renewable Energies
- Medical Technology
- Fluidized Bed Technology

OTTO VON GUERICKE (1602-1686)

The University of Magdeburg owes its name to the founder of experimental physics and vacuum technology, Otto von Guericke. He lived from 1602 to 1686 and, along with Emperor Otto I and the Baroque composer, Georg Philipp Telemann, is among the most famous personalities to originate from the state capital of Saxony-Anhalt. His interest in scientific connections and methods, and his commitment to the common good are an example that the university community strives to follow.



The combination of electrical engineering and information technology is forward-looking and offers extensive opportunities and challenges in research and teaching. Alongside the traditional areas of energy, propulsion and communications technology, in our faculty research and teaching are also undertaken in the automation of processes, cybernetics, sensor technology and medical technology. State-of-the-art laboratories in a wide range of areas ensure an education to a high scientific standard. The diversity in research and teaching in our faculty is reflected in the numerous links to other engineering sciences, the natural sciences, medicine, and economics and business.

The faculty works closely with national and international research institutions. There are cooperations of many years' standing with the Max Planck Institute for the Dynamics of Complex Technical Systems, the Fraunhofer Institute for Factory Operation and Automation, the Centre for Product, Systems and Process Innovation (ZVPV GmbH) and the Institute for Automation and Communication (ifak).

A committed team of professors and staff, a high number of internships and numerous opportunities to work on current research projects provide the ideal environment for students to efficiently and successfully complete their studies within the standard course duration.

The highly-qualified graduates from our faculty take up varied careers in cutting-edge technological fields. As electrical engineers, they take responsibility in research and development, industrial production, testing and quality assurance, planning and project development as well as in management. They work across sectors in the electrical, automobile, chemical and mechanical engineering industries, as well as in medical technology, consumer electronics and even space flight.

Our faculty is one of the most successful in acquiring (third-party) funding for research projects. This produces numerous opportunities for the students to be involved in exciting projects either during their studies as student assistants or afterwards as academic staff members or doctoral students.

CHAIRS AND PROFESSORS

The Faculty of Electrical Engineering and Information Technology consists of four institutes and one affiliated institute.

Institutes

- Institute of Automation Technology (IFAT)
- Institute of Information and Communication Technology (IIKT)
- Institute of Electrical Energy Systems (IESY)
- Institute of Medical Technology (IMT)

Affiliated Institute

- Institute for Automation and Communication e.V. (ifak)

As far as research is concerned, the institutes and chairs of the Faculty of Electrical Engineering and Information Technology are involved in a wide range of areas. Both industry-related and interdisciplinary topics and problems are worked upon and form the basis for the transfer of research into industry.

Within the context of the key knowledge transfer area of renewable energies, scientists from the Faculty are contributing to the success of the energy revolution in cooperation with research institutions and enterprises.

They are finding solutions for the use of wind energy, hydro-power and biomass, for electrical grids and power electronics as well as for storage systems.

A team of researchers in the Faculty is working on designing a more effective and secure means of communication

between drivers and driver assistance systems. Based on customized automated man-machine interactions, a new generation of electronic support systems is being developed, which in future will be able to assist in mitigating or even preventing dangerous situations in traffic.

On the STIMULATE medical technology research campus, new and innovative diagnostic methods and therapeutic approaches are being devised and implemented for the medicine of the future in close cooperation with industrial partners.

In cooperation with the Max Planck Institute for the Dynamics of Complex Technical Systems and another four faculties, complex dynamic systems are being decoded and systematically influenced. Research objectives include the development of personalized medicine, the production of vaccines in cell cultures and the manufacture of biopolymers.

