Information Sheet
Course of Study

Electrical Engineering and Information Technology

General information
Graduates of Electrical Engineering and Information Technology are employed in various fields and have excellent career prospects. This includes the areas of development, production, quality management and project work as well as distribution, service and appraisal. With this background in mind, the programme aims to convey hands-on practical education based on scientific knowledge and methods to enable graduates to take responsibility in the field of electrical engineering and information technology.

Course of Study
The programme is seven semesters in duration including a pre-study work placement of six weeks prior to the beginning of the programme or within the first semester (first practical stage) and a practical semester of 20 weeks (second practical phase, during semester five). The scientific and engineering basics of this programme are provided during the first stage of study (semester 1 and 2). These are:

- Mathematics 1 and 2
- Physics
- Design
- Electrical Engineering 1 and 2
- Computer Sciences 1
- Materials Science
- English

Building on the first stage, stages two and three are designed to transfer, intensify and apply the taught material, especially during a practical semester.

Lectures of stage two include:

- Electrical Engineering 3
- Computer Sciences 2
- Digital Technology
- Applied System Engineering
- Electronic Components and Circuit Technology
- Measurement Techniques
- Analog and Digital Communications Engineering
- Project Management
- Embedded Systems
- Facilitation and Presentation Techniques
- Control Engineering

In stage three, students have to choose between the following areas of specialisation:

- Automation Engineering (relevant course work includes Automation Engineering, Process Data Techniques, Mechatronic Systems, Robotics)
- Electrical Engineering and Information Technology (relevant course work includes Electrical Power Engineering, Digital Signal Processing, Computer Networks, Power Electronics for Renewable Energy Sources)

The following modules have to be taken for both areas of specialisation:

- Practical Phase (including a practical seminar and accompanying lectures)
- Electrical Machines and Drives
- Subject-specific Projects and Electives
- Bachelor's Thesis and Seminar.

Practical projects and laboratory experience complement the taught modules. Students benefit from the University's state-of-the-art laboratories and multimedia laboratories where they acquire hands-on experience in digital and microcomputer technology, digital signal processing, power engineering, high-voltage engineering, power electronics, measurement engineering, circuit engineering as well as audio and video technology.

The third stage concludes with the writing of a final research paper (Bachelor's Thesis).

The Programme leads to a Bachelor of Engineering degree (B. Eng.).

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