STUDY PROGRAMS

ELECTRICAL ENGINEERING

Final Degrees Awarded:
Bachelor of Science in Electrical Engineering
Master of Science in Electrical Engineering

Language of Instruction: German

Duration of Program:
Bachelor's: 3½ years
Master's: 1½ years

Beginning of Program:
Bachelor: October
Master: October or April

Goals of the Program

The study program in Electrical Engineering provides a solid core of Electrical Engineering courses, which form the basis for specializations in a wide variety of subject areas ranging from microprocessors to renewable energy systems. The curriculum's scientific and methodological foundation ensures that students have the formal tools they need to keep abreast of changes in technologies and systems. At the same time, students gain insight into the practical issues of designing and building systems by participating in project-oriented courses. The large number of ongoing research projects within the Faculty enables many students obtain part-time jobs, working on research while pursuing their undergraduate or graduate degree. After completing the Bachelor's program, qualified students may continue their studies in a Master's program. The Master's degree is a formal prerequisite for entering a PhD program.

Structure of the Program

The curriculum is organized in modules, each consisting of one or more courses. The courses comprise lectures, tutorials, exercises, seminars, experimental laboratories and projects. Most courses are taught in German, though some will be available in English. At the end of each semester, students are assessed by means of oral or written exams for each completed module and receive the corresponding number of credit points (CP). Students are expected to earn 60 CP per year. A credit point roughly corresponds to 30 hours of student work.

The 3½-year **Bachelor's Program** consists of five semesters of mandatory courses, 1½ semesters of elective courses, and a 3-month period for the Bachelor thesis. Specialization topics are **Electrical Power Systems** and **Electronics and Information Technology**. The Bachelor's thesis is concluded by an oral presentation (defense).

The 1½-year **Master's Program** consists of 2 semesters of elective courses and a 6-month period for the Master's thesis. The elective courses include courses chosen from one of 6 specialization areas:

- Electrical Power Systems (drive technology, lighting and solar technology, electrical power systems)
- Automation Technology (measurement technology, control engineering, digital signal processing)
- Information Technology (broadband communication, high-frequency technology , high-frequency electronics)
- Communication Systems (digital communication systems, communication networks, communication services)
- Microsystems Technology (technology, devices, design and simulation)
- Integrated Systems (integrated circuits, design of microelectronic systems, computer architecture)

The Master's thesis must be written in the selected specialization area and is concluded by an oral presentation (defense).

Besides other academic cooperation, there exists a joint degree program with Shanghai Jiaotong University.

Formal Entrance Requirements

Applicants to the Bachelor's program must have a high school diploma equivalent to the German "Abitur". Applicants to the Master's program must have a recognized first degree (Bachelor of Science) in Electrical Engineering awarded by an internationally recognized university-level institution. For both programs, candidates must also have sufficient German language skills, usually certified by a TestDAF diploma.

Special Entrance Requirement for the Master Program

Since the Master program is consecutive, building on Berlin University of Technology's Bachelor's program, additional courses may be required. This may necessitate an additional preparatory semester before entering the Master's program. Details of the admission requirements and procedures are currently in the State of Berlin's legislative process.

Career Opportunities

There is currently a lack of qualified, university-trained electrical engineers in all areas of the European job market. Graduates will find job opportunities in the electrical industry as well as areas such as communication technology, energy systems and drives technology.

Application Procedure

Please go to http://www.tu-berlin.de/zuv/ia/studium_e.htm for ONLINE APPLICATION or contact the International Office at TU Berlin: international.admission@tu-berlin.de for advice. International applications will be subject to equivalence checks performed by ASSIST (http://www.uni-assist.de/)
If you need more information on course content, please visit our website at http://www.eecs.tu-berlin.de

The City

Germany's capital Berlin, reunited after the fall of the Wall in 1989, is well known for its rich cultural scene, its international flair, its blend of classicist and post-modern architecture, its many parks and waterways and its pulsating metropolitan life.

The University

Berlin University of Technology (TU Berlin) is one of Germany's oldest, largest and most renowned universities of technology. Dating back to 1779, it now provides academic education in science and engineering to 30,000 students.

EE & CS Faculty

The Faculty of Electrical Engineering and Computer Science at TU Berlin offers study programs in Computer Science, Computer Engineering, Electrical Engineering and Computational Neuroscience. A Master's program in Automotive Systems is in preparation and will commence in 2007. The Faculty is at the very center of an unparalleled research network in the area of information and communication technology, consisting of six research institutes closely affiliated with the Faculty (including the on-campus Deutsche Telekom Laboratories). This provides excellent opportunities for participating in advanced research and development activities.

Address

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Faculty IV
Electrical Engineering and Computer Science
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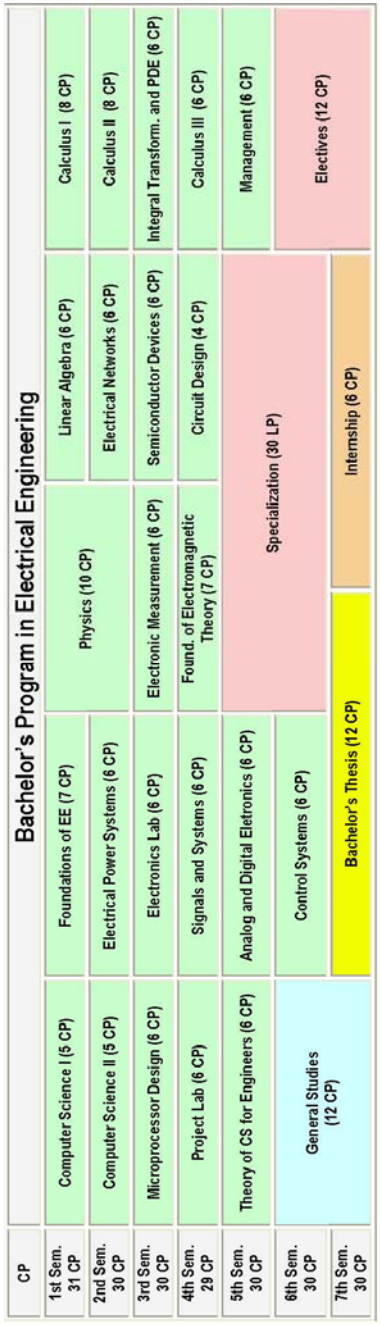
Germany

http://www.eecs.tu-berlin.de



Bachelor's / Master's Program in Electrical Engineering

Technische Universität Berlin