

Electrical Engineering at a glance

Start of study

Winter semester

Duration

7 semesters

Program structure

2 semesters Foundation Studies in English language,
including German language courses
5 semesters Advanced Studies in German language,
including 1 internship semester

Qualification

Bachelor of Science (B.Sc.) in Electrical Engineering

Admission requirements

University/higher education entrance qualification
equivalent to German Abitur or Fachhochschulreife

Online-application details

www.ete.hs-mannheim.de/bachelor/apply.html

Application deadline 15 May (winter semester only)

Contact

apply.eeb@elektrotechnik.th-mannheim.de

Instagram: [elektrotechnik_th_mannheim](#)

Facebook: Elektrotechnik Technische Hochschule
Mannheim



“I share a small class with other intercultural new friends. This has allowed the professors to really work with us individually, so that together we can come up with a solution to a problem.”



„As soon as I arrived at the university, a bunch of people surrounded me and the other new international students, providing all of the help we needed and even more.“



Department of Electrical Engineering

Electrical Engineering (Bachelor)

- > Automation and Industrial Internet of Things
- > Power Engineering and Renewable Energies
- > E-Mobility and Autonomous Driving



Department of Electrical
Engineering

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+ INTERNATIONAL

+ INTERDISZIPLINÄR

+ INNOVATIV

WIRTSCHAFTS
UNIVERSITÄT
MANNHEIM

Technische Hochschule
mannheim



Why Electrical Engineering?

- How can we achieve a sustainable and secure supply of energy?
- How can we make electromobility more a feature of everyday life (e.g. longer range, shorter charging time)?
- How can we develop modern, intelligent and networked production systems that are flexible, user-friendly and safe?
- How can we optimize energy use at home? How do we create easy and safe heating, ventilation and lighting control systems?

After studying Electrical Engineering at Technische Hochschule Mannheim you will be well equipped to tackle these exciting issues.

Three in one

After you have familiarized yourself with the main subjects of Electrical Engineering during the first two semesters, you decide from one of three focuses:

- **Power Engineering and Renewable Energies**
- **Automation and Industrial Internet of Things**
- **E-Mobility and Autonomous Driving**

The Program

High Practical Relevance

You will gain your own practical experience through integrated laboratory work from the start of your study, an integrated practical study semester in the industry and study projects with industry related questions. You will gain experience with state-of-the-art technologies and familiarize yourself with the professional requirements of an engineer at an early stage so that you are well prepared for the job market.

Benefits for international students

As the program starts in English, many international applicants who do not have good German skills can start their engineering studies on this program. German language training is a vital component of the curriculum, not just during but also between the semesters in the form of three-week-intensive courses.

Benefits for German students

English competence is a much sought after skill in the engineering sector, and German students can gain vital experience by studying in English for their first year. German native speakers need to choose a technical English and another non-engineering elective.

Program structure

Directly before semesters 1 and 2 – **German courses** for international students with language, culture and orientation program.

Semesters 1&2 - Foundation Course

Fundamentals Maths, Physics, Computing, Electrical Engineering

Language German (for international students) or English (for German students)

Choice of focus:

- either:** Power Engineering and Renewable Energies
- or:** Automation and Industrial Internet of Things
- or:** E-Mobility and Autonomous Driving

Semesters 3&4 - Specific topics according to chosen focus:

Power Engineering and Renewable Energies:

Power Engineering, Renewable Energies, Electrical Machines and Drives, Smart Grids

Automation and Industrial Internet of Things:

Automation Technology, Industrial Internet of Things, Motion Control, Signal Processing

E-Mobility and Autonomous Driving:

Electrical Drives, Energy Storage, Artificial Intelligence, Sensor Networks

Semester 5 - Internship in industry

Semester 6&7 - Specialization in topics of semesters 3 and 4 by elective courses, study projects at the university and Bachelor research project at the university or in industry.

Studying at Technische Hochschule Mannheim

- + The program is characterized by high practical relevance and offers an insight into research and development.
- + The university's extensive experience of training engineers is highly respected in industry, offering graduates numerous and lucrative job opportunities.
- + Small class sizes mean close collaboration between fellow students, professors and other staff.
- + Welcome events organized by Electrical engineering department and international office to guarantee a good start in Germany: buddy program, support with student accommodation and visa matters, pick-up service on arrival, accompanying programme for city registration, health insurance and banking.

Our graduates

- + establish useful links with successful companies through their internship, sometimes resulting in job offers following graduation.
- + quickly find a job in industry thanks to the professional relevance of their studies.
- + gain relevant practical experience through laboratory classes, study projects and industrial internships.