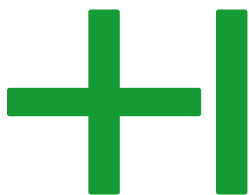


Hochschule Karlsruhe
University of
Applied Sciences

Fakultät für
**Elektro- und
Informationstechnik**



Electrical Engineering and Information Technology

Bachelor





Electrical Engineering and Information Technology

Modern life would be unthinkable without electrical engineering and information technology. What is behind smart home technologies, or what are smart grids? And how does the interaction of hardware and software work? In this degree program, you will learn how electronic devices are built and developed, how to make them communicate, and how the data is processed. You will learn to design new systems and solutions to problems in order to further develop modern life in a sustainable way.

For whom is the program suitable?

The program is suitable for anyone interested in the fields of mathematics, physics and computer science. If you are fascinated by technology and software and enjoy tinkering with scientific and mathematical challenges, then this is the right place for you. In addition, you should enjoy team-oriented and intercultural work.

Career & prospects

As an engineer working in companies, research, or university. Industry and companies are desperately looking for highly qualified electrical engineers. Your career opportunities after graduation are excellent. A large variety of different companies and fields are open to you.

Electrical and information engineers are employed, for example, in mechanical and vehicle engineering, in energy supply companies, in the aerospace industry, in medical and microsystems technology, or in multimedia and mobile communications companies. They can also work as self-employed engineers, as consultants, as editors of a technical journal or as scientific staff in research institutions, or as lecturers at universities.

Study Contents

During the basic studies, you will learn the basics of mathematical and scientific subjects and electrical engineering. You will learn elements of digital technology and programming, as well as systems theory and control engineering. Lectures and exercises on measurement technology and electronics are also on the curriculum. In the third and fourth semesters, further knowledge is deepened.

Are you especially fascinated by a particular subject? Then you can pursue your interests in the sixth and seventh semesters and accordingly select the subjects you want.

This international course of study in English also includes **German language courses**. With such language skills you will find your way around everyday life and settle in well into companies. You will also have the opportunity to further your skills in the field of intercultural communication to enable a better entry into the international working world.

Study Contents

Semester 1 Mathematics 1, Circuit Analysis 1, Physics, Programming 1, Language 1

Semester 2 Mathematics 2, Circuit Analysis 2, Electromagnetic Fields, Digital Electronics, Language 2

Semester 3 Mathematics 3, Instrumentation and Measurement, Programming 2, Signals and Systems, Language 3

Semester 4 Focal Subjects 1, Advanced Electronics, Microcontroller Systems, Control Systems, Management

Semester 5 Practical Training Guidance, Practical Training

Semester 6 Focal Subjects 2, Digital Systems

Semester 7 Focal Subjects, Projects, Bachelor Thesis, Final Presentation

Application-oriented Studies

The distinctive feature about studying at the Faculty of Electrical Engineering and Information Technology is the high proportion of practical experience. Right from the beginning of your studies you will be involved in project work. You will already learn to solder circuits and to work on other practical tasks independently in the laboratory during your basic studies.

Your lecturers come to the university contributing extensive industrial experience and pass on their knowledge by a combination of lectures with laboratory exercises. You will gain your first professional experience in an industrial company during your internship semester, which is usually scheduled for the fifth semester.

You will work on engineering tasks and apply the knowledge from your studies. Here you will learn about work processes that are very similar to your future engineering work.

After the internship semester, you will prepare a report and give a presentation on your work. We support students who would like to carry out their internship semester abroad.

You will also complete your Bachelor's thesis in an industrial company and, in many cases, get the opportunity to be taken on directly.



How To Apply

Do you want to apply to HKA?

All applicants, including EU applicants, apply directly at Karlsruhe University of Applied Sciences for a place in one of our study programs. HKA selects students independently and does not take part in uni-assist or any other centralised application institution. Please use the HKA online application portal (German-language pages). On the following pages, you will find the necessary information on how to apply.

Note: this information applies to applicants who wish to study as a **full-time** student for the full study period in order to obtain a degree - **exchange** students from partner universities, who wish to study for one or two semesters only at HKA and have their results transferred back home.



More informations see the → **International Office:**
www.h-ka.de/en/io

Do you need information on which documents to send and which requirements you must fulfill in order to apply?

www.h-ka.de/en/eeib/profile → **Admission requirements**

What do you need to do in order to apply? How should you proceed if you are offered a place at HKA?



Please consult → **Application Process:**
www.h-ka.de/en/discover/application/applying-for-bachelor/application

If you have questions and need further counseling, you will find various contacts for different matters at



→ **Guidance & Counseling:**
www.h-ka.de/en/study/guidance-counseling/advisory-services

Application deadlines for following winter semester

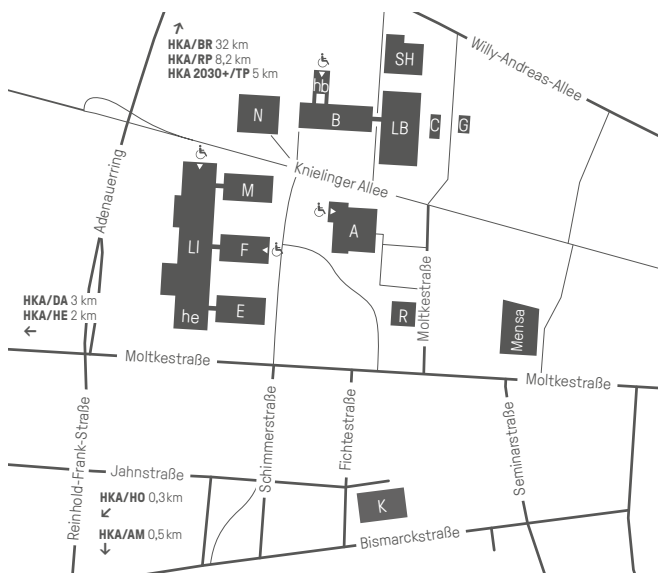
May 15 for Non-EU-applicants

July 15 for EU-applicants



More informations here:
www.h-ka.de/en/eeib/profile





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