

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# INTERNATIONAL PROGRAMMES

## Table of Contents

Bachelor's degree	2
Electrical Engineering and Information Technology • Karlsruhe University of Applied Sciences •	
Karlsruhe	2

## Bachelor's degree



## **Electrical Engineering and Information Technology**

Karlsruhe University of Applied Sciences • Karlsruhe



## Overview

Degree	Bachelor of Engineering (BEng)
Teaching language	• English
Languages	Courses are held in English.
Programme duration	7 semesters
Beginning	Winter semester
Application deadline	15 September The online portal is open from the end of April until 15 September. Once you have submitted all your documents, we can process your admission. Therefore, we recommend that you apply as early as possible.
Tuition fees per semester in EUR	Varied
Additional information on tuition fees	International students who are not EU nationals pay a tuition fee of 1,500 EUR per semester. (For information on exemptions, please see: https://www.h-ka.de/en/study/guidance-counseling/financing)
Joint degree / double degree programme	No
Description/content	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 programme, you will learn how electronic devices are built and developed, how to make them communicate, and how the data is processed. You will be able to design new systems and solutions to problems in order to further develop modern life in a sustainable way. In addition to the topics in the natural sciences and technical subjects, you will learn the German language, which will make it easier for you to get used to everyday life and will prepare you for future work opportunities. <b>For whom is the programme suitable?</b>

The programme 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.

### **Course organisation**

The Bachelor of Electrical Engineering and Information Technology takes seven semesters. During the first three semesters, foundation courses and extra German language courses take place. The following two semesters are dedicated to core subjects. The next semester is reserved for an internship in industry. In the final two semesters, students take specialisation courses and write their theses – often in cooperation with industry.

#### 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 part of 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 at companies. You will also have the opportunity to enhance your skills in the field of intercultural communication to enable a better entry into the international workforce.

### **Application-oriented studies**

The distinctive feature about studying at the Faculty of Electrical Engineering and Information Technology is the high proportion of practical experience. 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 via a combination of lectures with laboratory exercises. You will gain your first professional experience at an industrial company during your internship semester, which is usually scheduled for the fifth semester.

### **Course Details**

Course organisation	Semester One: Mathematics 1, Circuit Analysis 1, Physics, Programming 1, Language 1
	<b>Semester Two:</b> Mathematics 2, Circuit Analysis 2, Electromagnetic Fields, Digital Electronics, Language 2
	<b>Semester Three:</b> Mathematics 3, Instrumentation and Measurement, Programming 2, Signals and Systems, Language 3
	<b>Semester Four:</b> Focal Subjects 1, Advanced Electronics, Microcontroller Systems, Control Systems, Management
	Semester Five: Practical Training Guidance, Practical Training
	Semester Six: Focal Subjects 2, Digital Systems
	Semester Seven: Focal Subjects, Projects, Bachelor's Thesis, Final Presentation
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International elements	<ul> <li>Language training provided</li> <li>Projects with partners in Germany and abroad</li> </ul>
Integrated internships	Internship semester at a company
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	Νο

## Costs / Funding

Tuition fees per semester in EUR	Varied
Additional information on tuition fees	International students who are not EU nationals pay a tuition fee of 1,500 EUR per semester. (For information on exemptions, please see: https://www.h-ka.de/en/study/guidance-counseling/financing)
Semester contribution	All students pay semester fees (student services fee, registration fee, student union membership fee) amounting to approx. 160 EUR per semester.
Costs of living	The cost of living is approximately 800 EUR per month for general expenses, including rent, utilities, food, household items, transport, entertainment, clothing, insurance, books, the semester contribution (not included in the above-mentioned tuition fee for non-EU nationals), etc.
Funding opportunities within the university	No

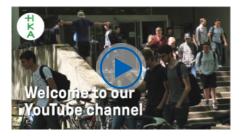
## **Requirements / Registration**

Academic admission requirements	All applicants must hand in the following application documents:
	1. School completion certificate, including transcript
	<b>Non-EU applicants only:</b> Submit a certificate from ASK ("Ausländerstudienkolleg Konstanz"). Please send your documents and evaluation request directly to the Center for International Students. There it will be decided which documents will be accepted for the examination.
	For further information, please see: http://www.htwg-konstanz.de/en/academics/center-for-international-students-konstanz/start-page/.
	Please remember to contact the ASK as quickly as possible, as they have different deadlines and require some time to evaluate your documents and issue the ASK certificate.
	EU or non-EU applicants holding a German HZB ("Hochschulzugangsberechtigung"): Follow the same application procedure as German applicants.

	2. Letter of motivation
	3. International applicants: English language certificate is required
	4. German language certificate (level A1)
Language requirements	<ul> <li>German A1 level certificate (The approval of the language certificate can wait until the end of your first semester.)</li> <li>International applicants: English language certificate (TOEFL certificate with at least 550 PBT (paper-based), or an equivalent English test)</li> </ul>
Application deadline	<ul><li>15 September</li><li>The online portal is open from the end of April until 15 September.</li><li>Once you have submitted all your documents, we can process your admission. Therefore, we recommend that you apply as early as possible.</li></ul>
Submit application to	http://www.h-ka.de/en/discover/application/applying-for-bachelor/application

## Services

Possibility of finding part- time employment	International students who come from the EU or outside the EU or the EEA and have a student visa are normally allowed to work outside of the university for 120 full or 240 half days per year. Therefore, students may work full-time during the lecture-free period or part-time during the semester. As the Karlsruhe region has a very low unemployment rate, chances of finding student jobs are generally quite good.
Accommodation	Students can apply for student housing through student services ("Studierendenwerk") at https://www.sw-ka.de/en/wohnen/. However, there is usually a waiting list for dormitory accommodation. The Studierendenwerk website also provides information about its extensive private accommodation service.
Support for international students and doctoral candidates	<ul> <li>Buddy programme</li> <li>Welcome event</li> <li>Accompanying programme</li> </ul>



### What Awaits You at the Faculty of Electrical Engineering and Information Technology at HKA

Welcome to the Faculty of Electrical Engineering and Information Technology at Karlsruhe University of Applied Sciences. On this channel, we introduce you to life on our campus. We explain the basics of electrical engineering in short videos and show you the projects of our students.

### >> more: https://www.youtube.com/watch? v=JmHw7qVw11M&list=PLhvRytfP7Y4 I7UvLgpk6PMC18RaPBwNzi&index=6

I7UvLqpk6PMC18RaPBwNzi&index=6 &t=6s

## Karlsruhe University of Applied Sciences

Karlsruhe University of Applied Sciences (HKA) is all about technology and business. The university offers degree programmes in engineering and IT as well as business management and media. There are six faculties:

- Architecture and Construction Engineering
- Computer Science and Business Information Systems
- Electrical Engineering and Information Technology
- Information Management and Media
- Management Science and Engineering
- Mechanical Engineering and Mechatronics

Small classes and an excellent student-teacher ratio ensure that individual students are well taken care of.

### Applied Teaching and Learning

The majority of German engineers have graduated from universities of applied sciences such as HKA, where teaching and learning are geared towards practical application.

Important elements of this are as follows:

- mandatory experience in business and industry of all professors
- seminars accompanied by lab classes
- mandatory internship semesters and thesis work in industry
- hands-on project work from day one

### **Applied Research**

At HKA, teaching is complemented by research, which equally focuses on its practical application. Close links to industry ensure the university's high quality standards and ensure that its graduates are well prepared for the labour market, both nationally and globally. This is borne out by numerous university rankings, which rank HKA among the top of German universities of applied sciences.



## University location

### The Campus

The university's main campus is located in the centre of Karlsruhe, on the southern edge of the spacious Hardt forest. It is a green campus that is equally suited for studying and recreation. The city of Karlsruhe, with a population of 310,000, including a combined student population of well over 45,000, is the centre of one of Germany's prime technology regions.

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- https://www.instagram.com/hochschule\_karlsruhe/
- https://www.youtube.com/watch?v=JmHw7qVw11M

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## **International Programmes in Germany - Database**

### www.daad.de/international-programmes www.daad.de/sommerkurse

### Editor

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### Disclaimer

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