



## ECE at a glance

<b>Name of Programme</b>	Electrical Communication Engineering (ECE), Dept. Electrical Engineering/Computer Science, University of Kassel
<b>Degree</b>	Master of Science (MSc) in Electrical Communication Engineering
<b>Starting Dates</b>	Winter semester (starting in October) or Summer semester (starting in April)
<b>Programme Duration</b>	Four semesters including Master thesis, 120 ECTS credits
<b>Language</b>	English

## Contact

### Information on application

[eceassist@uni-kassel.de](mailto:eceassist@uni-kassel.de)

### On-site information

[ececoach@uni-kassel.de](mailto:ececoach@uni-kassel.de)

### Programme coordinator

Dr.-Ing. Nour Mansour  
Wilhelmshöher Allee 73  
D-34121 Kassel

[mansour@uni-kassel.de](mailto:mansour@uni-kassel.de)

### More information

[www.ece.uni-kassel.de](http://www.ece.uni-kassel.de)

UNIKASSEL | ELECTRICAL  
VERSITÄT | ENGINEERING  
COMPUTER  
SCIENCE

## Electrical Communication Engineering (ECE) Master of Science Programme

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## Your ambition – our excellence

### Requirements

- BSc in Electrical Engineering or equivalent with a maximum degree of 2.5 (German marking system)
- evidence of English language proficiency (level B2 (TOEFL, IELTS or alike) or mother tongue)

**Information:** [www.uni-kassel.de/go/ece](http://www.uni-kassel.de/go/ece)

**Application:** [www.uni-kassel.de/go/ece-application](http://www.uni-kassel.de/go/ece-application)

### Location

Kassel University is an ambitious and modern academic institution (founded in 1971) and has committed itself to international cooperation and interdisciplinary research. It hosts guests from over 100 countries among its 23,000 students with a share of about 17 percent of international students: [www.uni-kassel.de/uni/en](http://www.uni-kassel.de/uni/en).

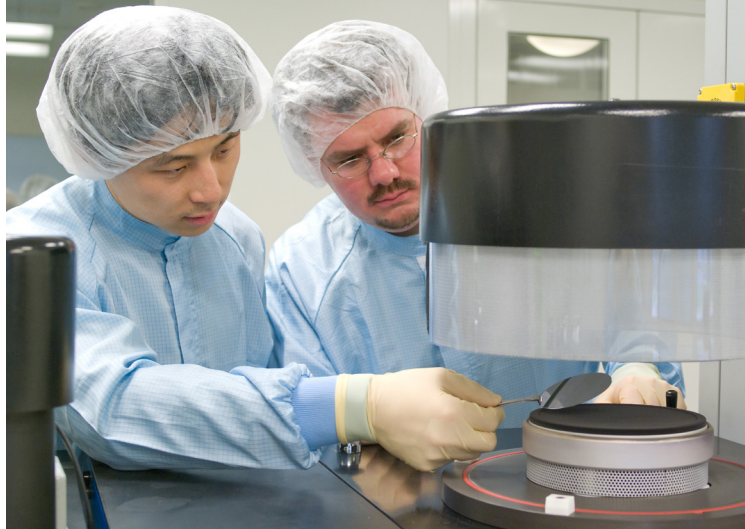
The city of Kassel (215,000 inhabitants) on the River Fulda is located in the heart of Germany and the center of Europe. Surrounded by forests and mountains, it offers many cultural attractions like concerts, opera and theatres, in particular the world famous "documenta", the biggest exhibition of contemporary art: [www.documenta.de/en/#](http://www.documenta.de/en/#).

### Special Services

The International Office of the University of Kassel offers support in administrative matters and finding accommodation. The ECE team guides students in introductory meetings, by intensive coaching and counseling, regular meetings and excursions during studies to national and/or international companies and research institutions in communications.

### Fees

No tuition fees are charged in the state of Hesse, but a compulsory semester contribution per term (about 340 Euro in summer term 2024) including a semester ticket for free public transport in Kassel and reduced prices at the university's refectories and cafeterias.



## Wireless Communications



Broadband Wireless and Wired Communications, Statistical Signal Processing, Signal Detection and Estimation, MIMO and mMIMO Transmission, PHY and DLC Layer Protocols in Wireless (Short-Range Radio) and Mobile Radio Systems (LTE, 5G, 6G, Cell-Free, Ultra Massive MIMO), Cognitive Radio, OSI Cross-Layer Optimization and Machine Learning.

## Optoelectronics and Optical Communication



Optoelectronic Devices, Semiconductor Lasers, Micro-system Technology, Fabrication Technology, Clean Room Technology, Nanosensorics, Optical Metrology, Optical Communications.

## Enabling Technologies for Communication Systems



Internet Technologies and Measurements, Internet of Things, Mobile Networks, Artificial Intelligence and Software Technologies, Classification and Clustering, Machine Learning and Pattern Recognition, Temporal and Spatial Data Mining, Information Security.

## Microwave Technology



Transmission Line Theory, UWB Microwave Radar, Terahertz Communications, High-Efficiency Linear Amplifiers and Oscillators, RF Sensor Systems, Design and Fabrication of High Gain Antennas, Optical Communication Systems.

## Electromagnetics



Numerical Methods in Electromagnetics, Electromagnetic Theory for Microwaves and Antennas, Theory and Modelling of Semiconductor Devices, Fields and Waves in Optoelectronic Devices, Electronic and Photonic Structures from Macro to Nano Scales for Sensing and Information and Communication Systems.