



ECE at a glance

Name of Program	Electrical Communication Engineering (ECE), Dept. Electrical Engineering/Computer Science, University of Kassel
Degree	Master of Science (MSc) in Electrical Communication Engineering
Starting Dates	Winter semester (starting in October) or Summer semester (starting in April)
Program Duration	Three semesters including Master thesis, 90 ECTS credits
Language	English

Contact

Program Coordinator

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ECE Coach and ECE Assistant

during semester:
ececoach@uni-kassel.de
during application period:
eceassist@uni-kassel.de

More information

www.ece.uni-kassel.de

UNIKASSEL | ELECTRICAL
VERSITÄT | ENGINEERING
COMPUTER
SCIENCE

Electrical Communication Engineering (ECE) Master of Science Program

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Requirements

- BSc in Electrical Engineering or equivalent with a minimum 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

Application: 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 25,000 students with a share of about 17 percent of international students: www.uni-kassel.de/uni/en.

The city of Kassel (200,000 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/#.

Special Services

Convenient accommodation and service packages for assistance in administrative matters, in finding accommodation, cultural and social programs, welcoming ceremony, introductory events, intensive study guidance and counselling, excursions during studies to international companies and institutions in communications.

Fees

No tuition fees are charged in the state of Hesse, but a compulsory semester contribution per term (about 300 Euros in winter term 2022/2023) including a semester ticket for free public transport in Kassel and reduced prices at the university's refectories and cafeterias.



Digital 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), 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.

Mobile Internet



Internet Technologies and Applications, Mobile Networks, Artificial Intelligence and Software Technologies (e.g. C#, Swift and Java), WiFi Fingerprinting, Home Automation, Complete System/Application Approach (Bluetooth, RFID, NFC, UMTS/HSPA/LTE) and Mobiles (Android, iOS), Classification and Clustering, Machine Learning and Pattern Recognition.

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.