



HSD

Hochschule Düsseldorf
University of Applied Sciences



Faculty of Electrical
Engineering and
Information Technology

Master of Science

Electrical Engineering and Information Technology

Profile

The master's programme Electrical Engineering and Information Technology comprises four semesters. It aims to qualify you for complex research and development work or doctoral studies and to expand your subject-specific and management skills.

The programme increases

- both your creative and design skills
- as well as your knowledge of the theory of natural and engineering sciences in a targeted manner.

You can choose from four areas of specialisation:

- Automation Technology
- Electrical Power Engineering
- Communications and Information Technology
- Microelectronics

The programme's goal is to optimise your career prospects and prepare you for academic work – by teaching you methodical skills and additional subject-specific knowledge.

Please note: Language of instruction is mainly German.

Career Options

The practice-orientated master's programme Electrical Engineering and Information Technology deepens your knowledge of mathematics and theory – thus creating a basis for successful academic work. In parallel, you expand your subject-specific expertise in your chosen area of specialisation.

As a graduate, you

- can work in the professional fields also open to bachelor graduates,
- have employment opportunities in research and development and
- have the possibility to attain further qualifications and teach at higher education institutions.

SYLLABUS

SEMESTERS 1-3

Electromagnetic Field Theory | Advanced Mathematics | Solid-State Physics

Automation Technology:

Modelling and Simulation | Technical Computer Science | Production Measurement and Testing Technology | Digital Control Engineering | Industrial Networks | Robotics and Artificial Intelligence | Image Recognition and Processing

Electrical Power Engineering:

Energy Conversion | Technical Mechanics | Materials in Electrical Engineering | Electrical Networks | Numerical Analysis | Network Control Technology | Energy Economics

Communications and Information Technology:

Systems Theory | Technical Computer Science | Coding Theory | Processor and Computer Architecture | Distributed and Parallel Systems | Advanced Photonics | Advanced Digital Signal Processing | Modelling and Simulation of Communications Networks

Microelectronics:

System Integration | Digital Signal Processing for Microelectronics | Rapid System Prototyping | Semiconductor Technology | Electromagnetic Compatibility | Computer-Aided Circuit Design | Infrared and Laser Technology

2 Compulsory Elective Modules: Technical Contents

2 Compulsory Elective Modules: Non-Technical Contents
Project

SEMESTER 4

Master's Thesis

Please check the module manual (currently only in German) for detailed information on the contents of the study programme.

Further Information

Faculty contact:

Dean's Office at the Faculty of Electrical Engineering
and Information Technology

T +49 211 4351-2300

dekanat.ei@hs-duesseldorf.de

About the programme, admission requirements
and application:

ei.hs-duesseldorf.de/meit-en

Get in Touch

Admissions Office

zulassung@hs-duesseldorf.de

hs-duesseldorf.de/zulassungsstelle (in German only)

Student Advisory and Counselling Service (ZSB)

studienberatung@hs-duesseldorf.de

hs-duesseldorf.de/zsb-en

International Office (IO)

international-office@hs-duesseldorf.de

hs-duesseldorf.de/io-en

Family Support Centre

familienbuero@hs-duesseldorf.de

hs-duesseldorf.de/fam-en

Office of Counselling and Disability Services (ABS)

barrierefrei@hs-duesseldorf.de

hs-duesseldorf.de/abs-en

Psychological Counselling Service (PSB)

info.psb@hs-duesseldorf.de

hs-duesseldorf.de/psb-en

HSD Invites You

Visit us! Join courses during our yearly trial week
(*Schnupperstudium*) and attend our information events
(e.g. *Tag der offenen Tür*, *Hochschulinformationstage*,
Wochen der Studienorientierung).

Information on all events (in German only):

hs-duesseldorf.de/zsb_veranstaltungen

HSD on social media
facebook.de/hsduesseldorf
instagram.com/hsduesseldorf

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