


HSD

Hochschule Düsseldorf
University of Applied Sciences



Faculty of Electrical
Engineering and
Information Technology

Master of Science

Electrical Engineering and Information Technology

Profile

The science-oriented Electrical Engineering and Information Technology master's programme comprises four semesters. It develops your knowledge and skills, qualifies you for complex research and development work or doctoral studies and expands your leadership skills.

The programme builds on existing competences in electrical engineering and information technology and enables you to do intensive research in your chosen field of specialisation from the first semester onwards.

You can choose from the following fields of specialisation, which are based on the current fields of research of the participating institutes and businesses:

- Automation Technology
- Electrical Power Engineering
- Information Technology
- Mechatronics
- Microelectronics

In all areas of specialisation, we react quickly and agilely to innovations, we enable and promote intensive work on current scientific questions. Every semester, we add new future-oriented subjects to our syllabus in the form of elective modules.

The main objective of the Faculty of Electrical Engineering and Information Technology is to optimise your career prospects and to prepare you for academic work – by teaching you methodological skills and additional subject-specific knowledge.

Please note: Language of instruction is mainly German.

Career Prospects

As a master's graduate in the field of electrical engineering and information technology, you will have excellent opportunities on the job market. There is a high demand for technical specialists in leadership and management positions in the industry and service sectors and higher public service.

In addition to the classical fields of application, master's graduates can work in research and teaching or continue their education with doctoral studies.

Admission Requirements

Please check if you meet all requirements for admission to the study programme. Further information:

ei.hs-duesseldorf.de/meit-en

SYLLABUS

SEMESTERS 1-3

TECHNICAL MODULES IN THE FIELDS OF SPECIALISATION

Automation Technology:

Image Recognition and Processing | Production Measurement and Testing Technology | Advanced Control Engineering | Industrial Networks | Cooperative and Mobile Robotics | Artificial Intelligence | Modelling and Simulation | Numerical Methods | Smart Systems | Electromagnetic Field Theory

Electrical Power Engineering:

Drive Control | Electrical Networks | Energy Conversion | Advanced Control Engineering | Modelling and Simulation | Numerical Methods | Legal Framework | Electromagnetic Field Theory | Materials

Information Technology:

Algorithms, Data Structures, Graphs | IT Security | Machine Learning | Modelling and Simulation | Numerical Methods | Rapid System Prototyping | SoC Programming | Software Engineering | Systems Theory | Electromagnetic Field Theory

Mechatronics:

Drive Control | Advanced Control Engineering | Industrial Networks | Artificial Intelligence | Modelling and Simulation | Numerical Methods | Smart Systems | Electromagnetic Field Theory | Materials

Microelectronics:

Advanced MyP Arduino | Digital Signal Processing | EMC | Solid-State Physics | Semiconductor Technology | Infrared and Laser Technology | Nanoelectronics | Computer-Aided Circuit Design | System Integration | Electromagnetic Field Theory

Further modules in the programme:

Projects | Technical Elective Modules | Non-Technical Elective Modules

SEMESTER 4

MASTER'S THESIS

Please check the module manual (currently available in German only) 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

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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