

Language:

The Master's programme is taught in English. Therefore a good (B2 level) understanding of English is necessary for the study and must be proven by common language examinations such as TOEFL, IELTS for English. A list of [recognised certificates](#) can be found on our website.

Fact Sheet Electrical Engineering and Information Technology

Degree: Master of Science (M.Sc.)

Duration: 3 semesters (18 months)

Start: October & March (winter & summer semester)

Location: [Deggendorf](#)

Course language: English

Admission requirements:

- Admission is defined in the study and examination regulations. (§ 3 Qualification and Admission Requirements and Admission)
- Candidates for the Master Electrical Engineering and Information Technology programme at the Deggendorf Institute of Technology are required to have a bachelor's degree in electrical engineering and/or IT (or related field) with an overall grade of at least 'good'.
- In addition, applicants must pass an assessment test. The assessment test is composed of complex problems in advanced mathematics for engineering, as well as in the principles of electrical engineering and information technology and their applications.
- The [digital admission test](#) can be taken in person in Deggendorf free of charge. If you are unable to attend the test in Deggendorf, an online test is available at your convenience ([sample test](#)). However, this test will be proctored by an external service provider and as such will incur a fee of 26 USD, payable at the time of scheduling using an internationally recognised credit card .
- Work experience after completing the first university degree is not required for approval.
- If German is not the candidate's first language, German A2 certification must be provided **by the end of the second semester**. We would like to advise all successful applicants that you will have to write a German placement test upon arrival at the university. The placement test serves to help us help you achieve your German requirements more efficiently. German courses are offered free of charge during the semester. Intensive German courses can be taken for a small fee during the semester breaks.
- If English is not the candidate's first language, proof of English proficiency must be provided from accepted organisation. See [language requirements](#) .

Key focus:

- Electronic and telecommunication systems
- Automation

Fees: No tuition fees, only €62 student service fee per semester

CHE ranking 2019/20:

- Leading position in [Electrical Engineering and Information Technology](#)

Contact:

- For general info about studying at DIT contact our [advice and support team](#) or email welcome@th-deg.de
- [Information for freshers](#)

[Advice & support](#)

[Practical information](#)

[Ask the student!](#)

Course Aim

The Master's degree in Electrical Engineering and Information Technology teaches students the skills for handling complex new challenges in hard and software design and development, either for electronic and telecommunication systems or for automation technology, based on the respective major or focus involved.

The Master's program enables bachelor graduates to widen and reinforce their expertise with theoretical and application-oriented training, in order to meet the demands of modern development particularly in high-tech sectors. This program builds on advanced technical knowledge of electrical engineering as well as methodological and personal skills, gained through the bachelor degree.

The professional aim of a Master in Electrical Engineering and Information Technology is towards a career in research and development, application management, consulting or sales of hardware and software. Furthermore, a Master is the basis for an academic career at universities and research institutes and serves as preparation for a PhD.

In the master's program deepening and broadening of theoretical and application-oriented knowledge and skills is carried out. The Master program extends the acquired professional focus of the Bachelor program by the two optional areas 'Electronic and Communication Systems' and 'Automation and Power Engineering'. Students can choose either for deepening of their knowledge by continuing their focus of the Bachelors, or for professional diversification by choice of the other focus in the master. The Master-students gain the ability for independent scientific work, which is also promoted by the relation of the Master's program to the research activities of the faculty and the faculty staff. They gain knowledge of methodological approaches and current research literature. Fundamentals of engineering are applied to real-world problems, which are derived from research projects and experiences within the faculty to develop skills and competencies for solving problems in the areas of design, test, development, and research. Furthermore, the ability is stimulated to quickly and systematically learn the ropes.

Focusing on 'Electronic and Communication Systems (ENS)', graduates have acquired in-depth knowledge in the areas of advanced components and systems of micro- and opto-electronics, and have extensive knowledge in many applications of rf-technology. They are in particular able to analyze, structure and solve practical problems in the field of micro- and opto-electronics and communication engineering as well as in related domains. They also have expanded and intensified the expertise to design systems in rf- and communications technology.

The focus in 'Automation (AT)' is on automotive and industrial drive systems. Graduates have knowledge in numerous applications of automation and in-depth knowledge of modern sensor technology and control technology. They are able to deal with issues of automation technology, industrial sensor technology and drive technology and to apply current techniques. Furthermore, the graduates have the ability to identify the applicability of automation and merge process modeling and simulation for system analysis. They have the competence to assess, structure and solve problems in the field of drives as well as related topics.

Furthermore, the economic fundamentals are supplemented and expanded towards Business- and HR-Management.

Career prospects

Companies are increasingly confronted with international interdependencies ('globalisation'), complex organisational structures and increasingly complex technology. In addition to an international orientation, there are increased demands on qualified engineers in research and development or with management tasks.

The markets of the digital world of today and tomorrow need more and more highly qualified engineers in electronics and information and communication technology who are capable of creative work with in-depth theoretical knowledge and a broad spectrum of expertise. With the Master of Science you are optimally prepared for the future.

The international orientation of a Master of Science and the high scientific standard of the training give you the necessary security at the start of your professional life and the companies or research institutions the guarantee to employ highly qualified staff.

If you are among the best, you will have the best prerequisites to complete a doctorate after completing your Master's degree.

Alumni Profile

[Kishore Kanade about his degree at DIT:](#)

Kishore Kanade

2007 | Master Electrical Engineering and Information Technology



Kishore Kanade is an international alumnus of DIT. He reports about his study life in Deggendorf as an international student.

Career development

Currently I am working as a Senior Technical Project Test Lead for a project from a famous European OEM. I am responsible for a team here in Germany as well as Offshore Location. Regular planning, task assignment, monitoring and controlling are a part of my day to day activities. I am also responsible for setting up resources, hardware as well as software tools at Offshore Locations and Customer Locations for the execution of the project. I along with my team actively take part in the project development starting from the scratch till the product is launched into the market and also for after market support.

Reminiscing allowed: remember your student days

Our study time in Deggendorf was very special. It opened up a totally different platform for us. We got in touch with many international aspects. It was very interesting to learn about the culture through various social events organised by AKI. The university provided us very interesting latest technology projects directly from the companies. We learnt a lot with the help of very friendly and supportive faculty members, professors and teaching staff of various departments at Deggendorf Institute of Technology.

What advice would you give to today's students?

Deggendorf Institute of Technology is a great platform to start your career with. It prepares you very well with all the latest technology that is in high demand in the current industry. The various technical subjects, projects and master thesis topics are tailor made for individual technical topics keeping in mind the industry standards. The professors, teaching staff and faculty members are always there for you. You get a clear direction in the university about your future. If you are ready to receive the knowledge, the university has a lot of potential to help you in shaping up your future.

Subject Overview

Overview of the courses, SWS (semester hours per week) and ECTS (European Credit Transfer and Accumulation System) of the Master's degree course Electrical Engineering & Information Technology.

Modules of Joint Studies (both Key Focus Areas)	SWS	ECTS
Advanced Programming Techniques	4	5
Numerical Methods	4	5
Special Mathematical Methods	4	5
Harmonising Courses or Two (2) Compulsory Electives	8	10
Compulsory Elective	4	5
Selected Topics in Business Administration and HR Management	4	5
Foreign Language Course (German for international students)	4	4
Mastermodule (Master Thesis + Master Seminar)	-	26

Modules of the key focus Electronic and Communication Systems (ENS)	SWS	ECTS
Selected Topics in Micro- and Nanoelectronics	4	5
Selected Topics in Optoelectronics and Laser Technology	4	5
Modern RF and Radio Systems	4	5
Special Devices and Circuits	4	5
Signals and Systems in Communication Technology	4	5

Modules of the key focus Automation (AT)	SWS	ECTS
Advanced Modelling and Simulation	4	5

Selected Topics in Control Engineering	4	5
Selected Topics in Contactless Sensor Technology	4	5
Automotive and Industrial Drive Systems	4	5
Advanced Automation Technology	4	5

- [Selection of compulsory electives](#)

[Course Flyer](#)

[Module handbook](#)

[Study and Exam Regulations](#)

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