

STECKBRIEF

Degree

- Master of Science (M.Sc.)

Duration

- 3 semesters (1.5 yrs)

Start

- October & March (winter / summer semester)


Admission requirements

- Bachelor's degree (B.Sc. or B.Eng.) in Electrical Engineering, IT or a related field.
- Applicants must pass an admission test (see sample test): (The online and on-site admission test takes place in December and May respectively)
- Work experience after your first university degree is not required for enrolment.
- Admission is defined in the study and examination regulations (§ 3 Qualification and Admission Requirements and Admission).
- If English is not your first language, a B2 English certificate is required.
- German A2 certificate.

Taught in:

- German and English

Fees:


- €72 student union fee per semester
-  International applicants and students: Please scan QR-Code.

Location

- Deggendorf

BEWERBUNG

Bewerbungszeitraum

-  th-deg.de/fristen-m

Online-Bewerbung

- im Primuss-Portal unter www.th-deg.de/bewerbung

Zulassung oder Ablehnung

- im Primuss-Portal, Wintersemester bis Anfang August
- im Primuss-Portal, Sommersemester bis Anfang Februar



Einschreibung/Immatrikulation

- Infos dazu im Zulassungsbescheid

www.th-deg.de/ai-m





KONTAKT & ANSPRECHPARTNER

Are you interested in studying for this Master course in Applied Computer Science and would like to find out more?
Please direct all enquiries to:

-  www.th-deg.de/ai-m-en
-  welcome@th-deg.de
-  www.th-deg.de/en/advice



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DEGGENDORF
INSTITUTE OF
TECHNOLOGY **DIT**

Master
**APPLIED
COMPUTER SCIENCE**

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DEEPEN YOUR KNOWLEDGE

The vast majority of the electronics with hardware and software developed worldwide today is not in computers such as PCs or tablets, but in so-called embedded systems. These are technical devices in various fields (e.g. motor vehicles, aircraft, medicine, automation). These devices are controlled by a built-in (embedded), often not directly visible computer. Examples of such systems are the ABS/ESP in a motor vehicle, the control of a pacemaker or a washing machine.

The Master's programme Applied Computer Science / Infotronics imparts the competences to work on new, complex tasks and problems in the development and project planning of embedded systems.

The Master's programme is thus intended to enable graduates of a Bachelor's programme to substantiate the knowledge gained so far with theoretical and application-oriented knowledge in order to meet the requirements of modern development tasks in high-tech areas in a special way. Building on the previous bachelor's programme, the course imparts essential advanced specialist knowledge of hardware and software development as well as methodical and personal skills for concrete career orientation in research and development, application, management, consulting or sales of embedded systems. Furthermore, the degree forms the basis for a scientific career at universities and research institutes and serves as preparation for a doctorate.

In the Master's programme, the theoretical and application-oriented knowledge and skills are deepened and expanded. Courses in theoretical and practical computer science, supplemented by lectures especially for the development of embedded systems, as well as selected subjects of electrical engineering create a sound knowledge base. The Master's students acquire the ability to work independently in science, which is also promoted by the Master's degree's relationship to the research activities of the faculty and lecturers. They gain knowledge about methodical concepts and current research literature. Fundamentals of engineering are applied to real problems derived from research projects and experiences within the faculty in order to develop expertise and competences to solve problems in the areas of design, testing, development and research. Furthermore, the ability to quickly and systematically familiarise oneself with new areas will be promoted.

As part of a cooperation between the Deggendorf Institute of Technology and the University of Pilsen, an optional semester abroad in Pilsen provides the opportunity to acquire a double degree from both universities.

SUBJECT OVERVIEW

Overview of lectures and courses, SWS (Semesterwochenstunden = weekly hours/semester) and ECTS (European Credit Transfer and Accumulation System) in the Master's degree Applied Computer Science.

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|---------|---|
| 1. Sem. | Theoretical Computer Science, Practical Computer Science, Selected Topics of Embedded Software Development 1, FPGA Programming, Foreign Language 1 |
| 2. Sem. | Specific Mathematical Methods, Foreign Language 5 Elective Modules with 4 SWS and 5 ECTS each from the following range from Master's degree Electrical Engineering* Selected Chapters of Micro- and Nanoelectronics, High-frequency and Radio Technology Systems, Special Components and Circuits, Signals and Systems of Communications Engineering, Selected Topics in Contactless Sensor Technology, Automotive and industrial electric drive systems, Regenerative Energies Master's degree Media Technology* 3D Computer Animation, Computervision, Industrial Image Processing, Information Security, Application Design, Multimedia Content and Streaming <i>* The lecture content of the modules can be taken from the module manuals of the master programs Electrical Engineering and Information Technology or Media Technology.</i> |
| 3. Sem. | Selected Topics of Embedded Software Development 2 Master Thesis Master Colloquium |

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 for the development of embedded systems, who are capable of creative work with deepened theoretical knowledge and a broad spectrum of knowledge. With the Master of Engineering you are perfectly prepared for the future.

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

If you are among the best, then you have optimal conditions after the master's degree to continue with a doctorate.

