

PROFILE

1st semester

Orientation and Fundamentals

2nd to 5th semester

Professional and specialized studies

6th semester

Practicum phase and Bachelor thesis

Admission Requirements

- free admission
- University Entrance Qualifications

Application period

The program can only be commenced in winter term. You can apply from May 15 to July 15.

Possibilities for continuous education

Master DIGITAL TECHNOLOGIES (M.Sc.)*

*subject to acceptance of the MWK and the accreditation

Internationalization

The lectures will mainly be offered in German. Some modules may be offered in English.

In the 4th and 5th semester you can spend a semester abroad at one of our international partner universities.

Classic fields of professional activity

Depending on the focus area of your studies, your professional activities can vary from developing next generation recycling robots, developing even smarter control applications for buildings or production processes or developing apps for future mobility services. Whatever you choose, being at the interface of computer science and field of application will always place you among the leaders.

FURTHER QUESTIONS?

Do you have further questions or need assistance applying for this study program? Please contact the central student advisory services.

Ostfalia Student Advisory Service

Telephone: +49 (0) 5331 939 15200

E-mail: zsb@ostfalia.de

TU Clausthal Student Advisory Service

Telephone: +49 (0) 5323 72 3671

E-mail: studienberatung@tu-clausthal.de

SPECIALIST COUNSELING

You have technical questions or need more detailed information on the structure and contents of the program? Please do not hesitate to contact our study program coordination and program advisory services.

PROGRAM COORDINATION

Ostfalia Program Coordinator

Verena Barby, M.A.

Telephone: +49 (0) 5331 939 32430

E-mail: hello@digitecstudieren.de

TU Clausthal Program Coordinator

Steffen Küpper, M. Sc.

Telephone: +49 (0) 5321 72 8245

E-mail: hello@digitecstudieren.de

PROGRAM ADVISORS

Ostfalia Program Advisor

Prof. Dr.-Ing. Reinhard Gerndt

E-mail: digitec@ostfalia.de

TU Clausthal Program Advisor

Prof. Dr. Andreas Rausch

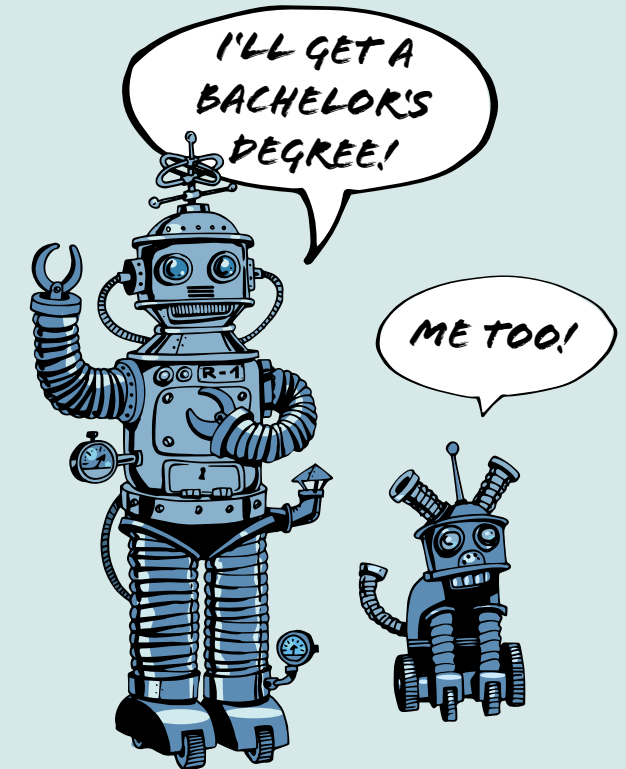
E-mail: digitec@tu-clausthal.de

www.digitecstudieren.de



DIGITAL TECHNOLOGIES

SUSTAINABLE. FUTURE. DIGITAL.



BACHELOR OF SCIENCE

DIGIT

Center for Digital Technologies

A collaborative study program of



THE PROGRAM

DIGITAL TECHNOLOGIES is a cooperative study program of TU Clausthal and Ostfalia University of Applied Sciences. In this program, both universities convey knowledge in topics of tomorrow. To do so, they merge their regional rootedness, their close connection of sciences, engineering and economics with their large network and their good contacts to companies and external institutions

In the Bachelor program students develop competencies for successful digitalization - in industry, research and administration, where computer science is often closely linked to the field of application.

Computer science courses form the foundation of this program. Already in the second semester, you choose your individual field of application.

The knowledge of both areas is connected in digitalization projects. Each semester, you will work on practice-related questions and assignments.

No other discipline develops as fast as computer science, no other discipline yields as many innovations relevant to our daily life. Computer scientists are allrounders who shape the future.

Topics of Computer Science:

- Programming techniques using Python and JAVA
- Internet of Things (IoT), Cyber-Physical Systems (CPS)
- Model-based systems engineering
- Data bases and Security and Privacy
- Robotics and machine learning
- Mathematical fundamentals of computer science

COMPUTER

Choose the field of application you are most interested in and thus place your study scope. By this, you already gain valuable insights and experiences in various modern business areas of economy and industry. These are the best prerequisites for an outstanding start into your working life!

You can choose from the following fields of application:

- The field **AUTONOMOUS SYSTEMS** teaches you the fundamentals and specialist knowledge of robotics. Here, you learn about the connection of prognosis and behavior of autonomous systems.
- **CIRCULAR ECONOMY AND ENVIRONMENTAL TECHNOLOGY** deals with questions of extraction and processing of raw materials, technical environmental protection and sustainability and environmental systems and their simulation.
- In **DIGITAL TRANSFORMATION** new business models, sustainable innovations and improved business processes and services are developed by using data and new digitalization technologies.
- **ENERGY** deals with the fundamentals of electrical engineering and thermodynamics as well as the main aspects of technical building equipment like air-conditioning and ventilation.
- **INDUSTRY 4.0** deals with digital production, including multi-faceted aspects from measuring technology to automation technology and computerized and additive production processes.
- **MOBILITY** covers the fundamentals of traffic and logistics as well as traffic control and management, and automated transport systems.

FIELDS OF APPLICATION

One of the key features of the program DIGITAL TECHNOLOGIES are the interdisciplinary digitalization projects. In these projects, Bachelor and Master students from different semesters develop prototypes for different assignments or problems for topics from the fields of application and computer science disciplines. Here, solutions are always approached by implementing digitalization technologies. In digitalization projects, students connect their fundamental knowledge of computer science with interesting questions and relevant problems of the fields of application.

In addition to theoretical fundamentals, the interdisciplinary digitalization projects also impart practical competencies:

- Project management and creative techniques
- Practice-related hard- and software projects
- Soft Skills
(Communication, Conflict and Team Skills)

DIGITALIZATION PROJECTS



COMPUTER

FIELDS OF APPLICATION

DIGITALIZATION PROJECTS

Upon successful completion of the Bachelor program DIGITAL TECHNOLOGIES, you will receive a certificate of both universities which boosts your career opportunities and lays the basis for the consecutive Master program DIGITAL TECHNOLOGIES.

A mobility package supports the students in visiting the lectures at the best-suited respective faculty!

BY THE WAY...