BACHELOR’S PROGRAMME IN COMPUTER SCIENCE ENGINEERING

ACADEMIC OBJECTIVES
The objective of the programme is to train and educate engineers who are able to install, exploit and maintain information technology based systems and services including the design and development of the necessary software systems as well. The graduates are able to progress into a Master of Science Degree Programme in Computer Science Engineering and/or are prepared to embark upon a professional career in the field.

STRUCTURE OF THE PROGRAMME

Length of the Course: 7-semester, full-time course. The program is available in dual and nondual form as well.
Graduate students attain a BSc in Computer Science Engineering.

Dual Education Form
The students participating in our programme can also apply at our dual business partners for dual education.

Specializations

Students who earned at least 100 credits can choose one out of the following specializations at the end of the 4th semester.
• Industrial Informatics and Microcontrollers
• Mobile Application Development
• Network and Web Technologies

The credits of the entire programme are distributed as follows:
Core Subjects 145 credits - 69,05 %
Specialization Courses 40 credits - 19,05 %
Thesis 15 credits - 7,14%
Elective Subjects 10 credits - 4,76%

The programme provides insight into the following areas:
• Natural sciences basics that are necessary for solving computer engineering problems.
• General knowledge related to economy, management, law and administration.
• A wide range of software engineering related topics including different programming languages, tools, design, management and maintenance methodologies.
• Hardware and software related general knowledge.
• Computer networks and informations systems including security issues and their solutions.
• Characteristic topics of the four specializations.

Final Examination

The Final Examination consists of three parts in this order:
• Defence of the thesis.
• Elaboration of a question related to the topic Databases and Network Technologies. This topic covers selected materials from the courses Databases 1, Databases 2 and Computer Networks 1.
• Elaboration of a question related to the topic Computer Architectures and Operating Systems. This topic covers selected materials from the courses Computer Architectures 1 and Operating Systems.

Career Opportunities

Information technologies are present in all areas of life. Graduates of our BSc programme in Computer Science Engineering will acquire theoretical and practical knowledge and skills required for success in employment in a wide range of fields conform to the specialization they have chosen. Thus, the typical job opportunities for graduates in the field of Industrial Informatics and Microcontrollers are programmer for PLCs, microcontrollers and industrial robots; software engineer for image processing systems; as well as developer of data acquisition and industrial automation systems. The specialization Mobile Application Development trains and educates software developers and testers for all kinds of mobile devices including game and web developers, too. Graduates who opted for Network and Web Technologies can find jobs as network system administrators, computer network architects, web developers, or information system architects.