Branch:Computer Engineering



Code: SOFENG Option: Software engineering Level: Master Prerequisites: Opportunities:

The study of the elite Master's program in software engineering aims to create the possibility of entry into the following career fields in particular: the classical software industry, the transformation of classical industries towards digitalization and industry 4.0, **IT-intensive** service companies, such banks, companies as insurance and telecommunications in particular, embedded software as well as industrial and scientific research departments and institutes. Specific areas of work are, for example, software development, design and architecture, software quality assurance, preparation and implementation of certifications.

Description:

The Master of Software Engineering program prepares graduates to take on responsible tasks in research and industry as technology experts or decision makers.

What is this degree program about?

The elite Master of Software Engineering program is designed for exceptionally talented and successful students in computer science and closely related fields of study. The objective of the program is to prepare students for responsible positions in science and industry through closely supervised technical education,

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the teaching of key interdisciplinary skills (soft skills) and practical experience, where graduates can actively participate in and contribute to the development of innovations.

Quality and competences:

The program provides in-depth, practical and application-oriented knowledge in the core topics of software engineering. Graduates will be able to evaluate software development processes, requirements engineering methods, design and architecture principles, and quality assurance methods, and develop technical solutions in the analysis, design, implementation and verification of software-intensive systems. You understand and can evaluate user interface, database and distribution paradigms. They know the state of the art in formal specification of software systems and can apply these techniques. In addition, the course teaches abstraction and analysis skills, systematic and structured approach, methodological competence, customer orientation, quality awareness, entrepreneurship as well as the key skills important for software development: presentation skills, teamwork and people management, leadership skills, moderation skills and intercultural competence. During the course, each student also methodically applied software engineering techniques during a compulsory industrial placement.