



IT4Innovations is a unique project building a national Centre of Excellence in the area of information technology research including the a very powerful supercomputer Salomon.

Key areas of research and development at FIT in Security and Industry 4.0 are:

- ▶ analysis, monitoring and security of high-speed computer networks
- ▶ evolutionary algorithms and evolvable hardware, fault tolerant systems
- ▶ formal verification, modeling and simulation, highly demanding calculations
- ▶ intelligent systems, information systems and their security, data mining
- ▶ hardware/software co-design, acceleration and optimization methods for embedded systems (including GPU and FPGA systems)
- ▶ computer graphics, virtual and augmented reality
- ▶ image, video, speech and natural language processing
- ▶ human-computer/human-robot interaction



Industry cooperation and Grants

- ▶ 40 industry R&D partners
- ▶ Contract research (38 projects running, 1.61 mil EUR in total)
- ▶ Joint research projects of the Center and the companies (co-)financed by the European Union or grant agencies (60 projects running, 4.32 mil EUR in total)
- ▶ Students' projects and internships
- ▶ Seminars, Conferences, Hackatons



Full degree studies in English



E-application

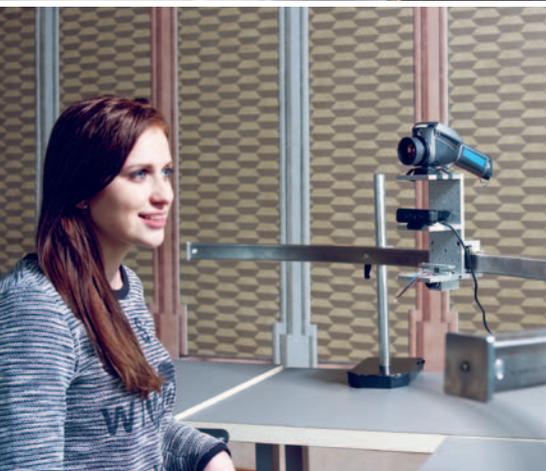


**Faculty of Information Technology
Brno University of Technology**

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Located in the unique, former Carthusian monastery, interconnected with a new modern building near the city centre, the Faculty of Information Technology (FIT) is one of the leading European educational and research institutions providing top quality degrees in information and computer technologies. Students are encouraged to work on their own projects in the Faculty's Computer Centre and to join teams pursuing national and international research in state-of-the-art laboratories, including, but not limited to, multimedia, biometrics, optics and robotics.

- ▶ Computer Network Lab
- ▶ Printed Circuits Lab
- ▶ Biometric Lab
- ▶ Multimedia Lab of Advanced Integrated Systems (Flight Simulators)
- ▶ Robotic and Human-Robot Interaction Lab
- ▶ Microscopic Analysis Lab
- ▶ Optical Lab



Computer Graphics and Multimedia Image and sound are the cornerstone of human-to-machine communication

Students learn how to design and develop computer vision, speech and natural language systems, program graphics in the gaming industry, or advanced user interfaces. In laboratories, students can experiment with powerful computers, graphic cards, camera systems, robot sensors, microphones, virtual and augmented reality devices, photo processing tools, or air-plane simulators.

▶▶ 79% students gain practical experience ▶▶ 99% graduates find work within 3 months ▶▶ 120% of average salary is the starting salary for FIT graduates

Selected courses:

- ▶ Computer Graphics
- ▶ Multimedia
- ▶ Image processing
- ▶ Speech signal processing
- ▶ Computational Geometry
- ▶ Computer Vision
- ▶ Robotics
- ▶ High Performance Computations

The degree program offers outstanding graduates of a Master's degree a prestigious university degree of the highest degree in computer science, computer science or information technology, which is specialized in the chosen dissertation topic. It ends with a PhD degree (Philosophiae Doctor). A key part of doctoral studies is research, often also in international research teams, coupled with active participation in scientific conferences and internships at foreign universities.

Fields of study prepared individually:

- ▶ Bioinformatics and Biocomputing
- ▶ Computer-based and Embedded Systems
- ▶ Computer Networks
- ▶ Computer Graphics and Multimedia
- ▶ Information Systems
- ▶ Intelligent Systems
- ▶ Safety and Security
- ▶ Theoretical Computer Science



- ▶ **The best technologies** – supercomputing, modern labs, flight simulator
- ▶ **Practical orientation** – industry, research, projects
- ▶ **Campus** – old monastery full of modern facilities
- ▶ **Graduates** – high demand, 99% in 3 month, 120% salary
- ▶ **Brno** – Silicon Valley of Europe
- ▶ **Learn from the best** – lecturers are research leaders
- ▶ **International cooperation** – more than 60 foreign students per year
- ▶ **Become the elite** in IT at FIT BUT

You will find it very difficult to get bored in Brno or at FIT. Student conferences, lectures by the world's leading experts, music festivals, as well as other events are happening throughout the whole year at the faculty. It is a vibrant and dynamic place close to the city centre of Brno – with over 80,000 students, it is a city with a young and inspiring spirit, as well as a great place to live, study and do research.