

Study branch Robotics

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Faculty	Faculty of Mechanical Engineering
Study programme	Engineering
Type of study	Bachelor
Language of instruction	English
Code of the branch	S04
Title of the branch	Robotics
Regular period of the study	3 years
Cost	50,000 CZK per semester
Coordinating department	Department of Robotics
Coordinator	doc. Ing. Milan Mihola, Ph.D.
Key words	Collaborative robotics, automotive industry, Industu 4.0, Robotics

About study programme

Within the specialization Robotics, graduates will gain experience as designers of elements of industrial robots, collaborative robots, manipulators and peripheral devices of robotized workplaces (conveyors, bins, heads of industrial robots etc.) but also as designers of these devices. They will acquire basic skills and competencies in the use of cutting-edge 3D design and simulation applications for the above-mentioned areas of design and engineering. With regard to the Industry 4.0 concept, robotics is its most important area.

Graduate's employment

Design and design offices for mechanical engineering - robotics, mechatronics, automotive using cutting - edge 3D design and simulation tools. System integrators of robotic workplaces. Designers of these devices as well as operational technicians, ensuring operation, adjustment, programming, diagnostics, maintenance and repair.

Study aims

Within the Robotics specialization, the graduate gains experience and skills in managing independent routine work in the areas of construction components of robots and their peripherals (conveyors, manipulators, robots effectors, etc.), including implementation of special sensors etc.). Furthermore, the basics of the methodology and procedures of risk analysis of these workplaces. Skills with routine use of SW tools 3D CADy - Creo, simulation SW V-Rep and basics of work with Robot Studio.

Graduate's knowledge

Within the Robotics specialization, the graduate gains experience as a designer of robot elements, manipulators and peripheral devices robotized workplaces (conveyors, bins, heads of industrial robots etc.), including collaborative robots, but also as designers these equipment, and in particular the operating technicians involved in the operation, adjustment, programming, diagnostics, maintenance and repair.

Graduate's skills

Within the Robotics specialization, the graduate gains experience and skills in managing independent routine work in the areas of construction components of robots and their peripherals (conveyors, manipulators, robots effectors, etc.), including implementation of special sensors etc.). Furthermore, the basics of the methodology and procedures of risk analysis of these workplaces. Skills with routine use of SW tools 3D CADy - Creo, simulation SW V-Rep and basics of work with Robot Studio.

Graduate's general competence

Within the Robotics specialization they will acquire basic competencies in the field of teamwork, importance of individual team roles and their coordination. They have knowledge of using specialized SW tools in the areas of robotics and mechatronics.