Summer semester

Name of subject	Field of study	Form of classes	ECTS points	Short summary	Obligatory?
PLC driver programming	Automation and robotics	Lecture Laboratory	5	The course covers programming of PLC systems with respect to IEC 61131 standart and real PLC systems: Siemens SIMATIC S7 300/1500 available in the laboratory. The practice covers ten exercises from programming of Siemens Simatic S7.	Yes
Programming of manipulation and mobile robots	Automation and robotics	Lecture Laboratory	5	This module covers learning of construction and programming of three popular robot types.	Yes
Renewable Energy Sources and Distributed Generation	Electrical Engineering	Laboratory classes Project classes	2	Renewable energy sources. Solar energy: solar heat, photovoltaic. The energy of water. Wind energy. Geothermal. Fuel cells.	No

				Renewable energy sources - practical application. Project of installation powered from renewable energy sources.	
Business Process Engineering and Rule-Based Systems	Computer science	computer laboratory class, lecture	3		Modeling of business processes; OMG BPMN standard; OMG DMN and OMG CMMN standard; Basics of analysis and optimization of business process models; Implementation of business processes; Rule-based systems.	Yes
Cryptography and Application Security	Computer science	computer laboratory class, lecture	3		Basic concepts and mechanisms of data encryption; Application security policies; Symmetric encryption algorithms; Asymmetric encryption algorithms;	Yes

				Hash functions; Key derivation functions; Digital signature; Blockchain technology; Security of internet application	
English in manufact-uring	Production Technology and Management	Seminar	2	English professional vocabulary and phrasing used in manufact-uring industries	No
English in Science and Technology	Production Technology and Management	Seminar	2	English vocabulary and phrasing used in scientific and technological literature	No