COURSE TITLE:	**PLC – Programmable Logic Controllers**
Institute/Division:	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
Course code:	E-PLC
Erasmus subject code:	0714
Number of contact hours	45
Course duration:	1 semester (Fall/Winter)
ECTS credits:	6
Course description:	The course comprises lectures and laboratory exercises. It aims to provide the student with understanding of programmable logic controllers and the acquisition of the ability to design of automation systems. The topics of the lectures include: Introduction to programmable logic controllers and programming language (Siemens controllers). Basic and advanced elements of lader programming languge. TIA Portal envirenment. Functions and Functions Blocks, Data Blocks, Organisations Blocks. Interrupts. Industrial automation synthesis and logical design of automation circuits. Designing electro-pneumatic systems and their control by programmable logic controllers.
Course type:	Lectures (15h), Laboratory (30h)
Literature:	Mitra, Madhuchhanda; Gupta, Samarjit Sen: Programmable logic controllers and industrial automation Mehta, Bharat; Reddy, Y. Jaganmohan: Industrial process automation systems : design and implementation Dey, Chanchal; Sen, Sunit Kuma: Industrial automation technologies
Assessment method:	Laboratory exercises and written exam
Target group:	Students in Computer Science, Control and Electrical Eng.
Contact Person:	Krzysztof Schiff, Ph.D Eng., krzysztof.schiff@pk.edu.pl