Course Unit Descriptor

Study Programme: Computing And Control Engineering

Course Unit Title: Computer process control

Course Unit Code: AU50

Name of Lecturer(s): Čongradac Velimir

Type and Level of Studies: bachelor

Course Status (compulsory/elective): elective

Semester (winter/ summer): summer

Language of instruction: english

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 5

Prerequisites: none

Course Aims:.

Students acquire the basic theoretical and practical knowledge about computer controlled systems.

Learning Outcomes:
The acquired knowledge is used in solving practical engineering problems and form the basis for the future professional courses

Syllabus.
Structure of the production process. Computer controlled systems. System for accepting analogue signals. System for accepting discrete signals. Sensors and transmitters in real industrial environment. Executive organs. Protection of industrial control systems against disturbances. Practical realization of regulator and regulator program. Control of discrete values (PLC devices). Highly reliable systems. Structure of practical control devices. Basic elements of control device software.

Required Reading:
Relevant literature in English, tbd

Weekly Contact Hours: 2	**Lectures: 3**	**Practical work: 0**

Teaching Methods:
Lectures. Computer practice. Laboratory practice. Consultations.
The final examination is written and oral. The course material can be divided and passed through three colloquia. As a rule the colloquia are valid for two examination periods. The colloquia and the examination are written. The written part is eliminating.
The final grade is based on the success on the colloquia, homework assignment, and written and oral part of the examination.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			