

Study Programme: Engineering Management			
Course Unit Title: Basics of technical system control			
Course Unit Code: IM1022			
Name of Lecturer(s): Gordana Ostojić, Miodrag Milutinov			
Type and Level of Studies: bachelor			
Course Status (compulsory/elective): elective			
Semester (winter/ summer): winter			
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: The goal of this course is to introduce students to the basic techniques and equipment used for control and regulation of technical systems in manufacturing and service companies.			
Learning Outcomes: Outcome of the subject is mastering the methods of control of technical systems applied in different types of businesses.			
Syllabus. Introduction to the basic components of technical systems. Basic principles of control of technical systems. Automated systems. Mechatronic systems. Mathematical descriptions of objects that are controlled. Measuring Transducers / Sensors; Actuators; Regulators; Programmable Logic Controllers; Systems for monitoring and visualization; Decentralized and distributed controllers; Principles of implementation of control systems. Examples of technical systems management.			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours:2	Lectures: 2	Practical work: 0	
Teaching Methods: Teaching is conducted through lectures and exercises. During the exercises the student is required to do practice-oriented tasks. Knowledge testing is carried out through two tests and the final exam, while before that student has to do all the exercises provided. The final exam is in written form.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

