

Specification for the book of courses

Study program	Electrical Engineering and Computer Science			
Module	Common			
Type and level of studies	Doctoral studies			
The name of the course	Systems Theory			
Lecturer (for lectures)	Antić S. Dragan, Mitić B. Darko			
Lecturer/associate (for exercises)				
Lecturer/associate (for OFE)				
Number of ECTS	10	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	Mastering the control system theory content. Training the students for active literature monitoring and scientific research in the field of diferent control systems.			
Course outcomes	Ability of critical analysis of existing solutions and finding original solutions on selected topics in the control systems theory.			
Course outline				
Theoretical teaching	System definition, examples, history, importance and classification of control systems. The basic principles of control. Mathematical description of dynamical systems. A uniform approach to system analysis. Basic system performances. Technical requirements specification and principles of control system design. Performance evaluation. Some engineering problems. MATLAB implementations.			
Practical teaching (exercises, OFE, study and research)				
Textbooks/references				
1	G. C. Goodwin, S. F. Graebe , and M. E. Salgado, Control System Design, Prentice-Hall, 2000.			
2	R.C. Dorf, and R.H. Bishop, Modern Control Systems, Prentice-Hall, 2004.			
3	W. S. Levine, The Control Handbook, CRC Press, 1996.			
4	D. Šiljak, Stability of Control Systems, School of Electrical Engineering, University of Belgrade, Forum, 1974 (in Serbian)			
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
3	0	0	0	0
Teaching methods	Lectures / consultation (in accordance with the number of students); scientific research (review of the literature, concrete problem analysis and finding solution, writing and presentation of individual paper).			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures		Written exam		
Exercises		Oral exam	50	
Colloquia				
Projects	50			