

## Specification for the book of courses

<b>Study program</b>		Electrical Engineering and Computer Science		
<b>Module</b>		Common		
<b>Type and level of studies</b>		Doctoral studies		
<b>The name of the course</b>		Systems for Measurement and Control		
<b>Lecturer (for lectures)</b>		Dinčić R. Milan		
<b>Lecturer/associate (for exercises)</b>				
<b>Lecturer/associate (for OFE)</b>				
<b>Number of ECTS</b>	10	<b>Course status (obligatory/elective)</b>	Elective	
<b>Prerequisites</b>				
<b>Course objectives</b>	Systematization of knowledge in the field of electronic measurements and control systems as well as studying modern measurement systems.			
<b>Course outcomes</b>	Increasing the level of knowledge, gaining insight into the achievements of science and technology in measurement systems, the ability to design measurement systems.			
<b>Course outline</b>				
<b>Theoretical teaching</b>	Information theory of measuring signals. Measurement errors. Measurement and control systems. Metrological system. Analog and digital signal processing systems. Design of automated measurement and control systems. System engineering. Management and evaluation of the system. Intelligent and virtual instrumentation. Embedded systems and systems for diagnostics. Reliability.			
<b>Practical teaching (exercises, OFE, study and research)</b>				
<b>Textbooks/references</b>				
1	P.H.Sydenham et al., "Measurement Science and Engineering", John Wiley and Sons.			
2	J.Webster, "The measurement, instrumentation, and sensors handbook", CRC Press, 2014.			
3	C.F.Coombs ed, "Electronic instrument handbook", McGraw-Hill, 2000.			
4	D. Stanković „Physical-Technical Measurements - Sensors“, University of Belgrade, 1997 (in Serbian).			
5				
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
3	0	0	0	0
<b>Teaching methods</b>	Lectures. Laboratory work within the framework of research tasks. The first steps in scientific research are expected in certain areas within defined project tasks; students will be involved in the process of writing and presenting scientific papers.			
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>	<b>Points</b>	<b>Final exam</b>		<b>Points</b>
<b>Activity during lectures</b>		<b>Written exam</b>		
<b>Exercises</b>		<b>Oral exam</b>		50
<b>Colloquia</b>				
<b>Projects</b>	50			