

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Control Systems		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Measurement of Non-electrical Quantities		
Lecturer (for lectures)		Radenković N. Dragan, Denić B. Dragan		
Lecturer/associate (for exercises)		Dinčić R. Milan, Pešić T. Mirosljub		
Lecturer/associate (for OFE)		Pešić T. Mirosljub, Jocić V. Aleksandar		
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	Mastering the basic knowledge necessary for measurement of non-electric quantities by electrical systems.			
Course outcomes	Theoretical knowledge; Mastering the using of appropriate electronic circuits and measurement methods.			
Course outline				
Theoretical teaching	Basic methods of measurements, static and dynamic characteristics. Measurement of linear and angular displacements. Measurement of acceleration and vibration. Measurement of force and moment. Measurement of pressure, level and flow. Temperature measurement by contact and contactless methods. Measurement of humidity and pH values, testing and calibration of sensors, transducers used in the automotive industry.			
Practical teaching (exercises, OFE, study and research)	Practice, laboratory exercises, realization of seminar and project tasks for the purpose of studying and practical implementation of measurement systems for measurement of non-electrical quantities.			
Textbooks/references				
1	D. Stanković, "Physical-technical measurements - sensors", 1997, (in Serbian).			
2	John Webster, „The Measurement, Instrumentation and Sensors Handbook“, CRC Press, 2014.			
3				
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	1	0	0
Teaching methods	Lectures, practice, laboratory exercises, consultations			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	10	Written exam	25	
Exercises	15	Oral exam	35	
Colloquia	15			
Projects	0			