

Study program: Electrical and Computing Engineering				
Type and level of studies: Doctoral studies (third level of studies)				
Course unit: Power Systems Reliability				
Teacher in charge: Vladica Mijailović				
Language of instruction: English				
ECTS: 15				
Prerequisites: -				
Semester: Summer				
Course unit objective				
Preparing for research work in the field of power systems reliability analysis.				
Learning outcomes of Course unit				
The acquired knowledge enables students to implement complete reliability analysis within individual hierarchical entities and their connections with other parts of power system.				
Course unit contents				
<i>Theoretical classes</i>				
Probability distribution function and indices. Hierarchical levels of power system. Reliability modeling of overhead lines. Reliability modeling of power plants. Reliability modeling of high voltage substations. Integrated systems. Deregulated systems				
Analysis of scientific papers devoted to reliability analysis.				
<i>Practical classes</i>				
Candidates solve practical problems. Writing scientific paper, as a possible theme for doctoral dissertation.				
Literature				
[1] J.Nahman, <i>Dependability of engineering systems-Modeling and evaluation</i> , Springer, 2002,				
[2] W.Kuo, M.Zuo, <i>Optimal Reliability Modeling</i> , Wiley&Sons, Inc., 2005.				
[3] Brown, E.,R., <i>Electric power distribution reliability</i> , Marcel Dekker, Inc. New York (2002)				
Number of active teaching hours				Other classes
Lectures: 3	Practice: 5	Other forms of classes	Independent work: 2	
Teaching methods Lessons, consultations, study and research work				
Examination methods (maximum 100 points)				
Exam prerequisites	No. of points:	Final exam	No. of points:	
Student's activity during lectures	5	oral examination	50	
Practical classes/tests	15	written examination		
Seminars/homework	-		
Project	30			
Other				
Grading system				
Grade	No. of points		Description	
10	91-100		Excellent	
9	81-90		Exceptionally good	
8	71-80		Very good	
7	61-70		Good	
6	51-60		Passing	
5	less than 50		Failing	