

Study program: Electrical and Computing Engineering				
Type and level of studies: Doctoral studies (third level of studies)				
<b>Course unit: Solar Systems</b>				
<b>Teacher in charge: Snežana Dragičević</b>				
Language of instruction: English				
ECTS: 15				
Prerequisites: -				
Semester: Summer				
<b>Course unit objective</b>				
Acquiring knowledge on technical exploitable potential, opportunities and the importance of the exploitation of solar energy. Understanding the principles and technology of electricity from solar energy. Involving students in research work in the field of conversion of solar energy into electricity.				
<b>Learning outcomes of Course unit</b>				
The development of scientific and technical personnel in the field of solar energy. Students should possess knowledge that will enable them to independently solve practical and theoretical problems in this area.				
<b>Course unit contents</b>				
<i>Theoretical classes</i>				
Selected topics in the field of measurement and analysis of solar energy resources. Thermodynamic analysis of processes and conversion of solar energy into electricity. New generation of solar cells. The impact of renewable energy sources on the environment. The principles of economic evaluation of renewable energy sources.				
<i>Practical classes</i>				
A part of the course is conducted through independent study research and measurements on the laboratory solar system.				
<b>Literature</b>				
[1] A. Luque, S. Hegedus, <i>Handbook of Photovoltaic Science and Engineering</i> , John Wiley & Sons, 2010.				
[2] Duffie, J.A., Beckman, W.A., <i>Solar Engineering of Thermal Processes</i> , Third Edition, John Wiley & Sons, 2006.				
[3] C.J. Chen, <i>Physics of Solar Energy</i> , John Wiley & Sons, 2011.				
<b>Number of active teaching hours</b>				<b>Other classes</b>
Lectures: 3	Practice: 5	Other forms of classes	Independent work: 2	
<b>Teaching methods Lessons, consultations, study and research work</b>				
<b>Examination methods ( maximum 100 points)</b>				
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>	
Student's activity during lectures	<b>5</b>	oral examination	<b>50</b>	
Practical classes/tests	<b>15</b>	written examination		
Seminars/homework	-	.....		
Project	<b>30</b>			
Other				
<b>Grading system</b>				
<b>Grade</b>	<b>No. of points</b>		<b>Description</b>	
<b>10</b>	<b>91-100</b>		Excellent	
<b>9</b>	<b>81-90</b>		Exceptionally good	
<b>8</b>	<b>71-80</b>		Very good	
<b>7</b>	<b>61-70</b>		Good	
<b>6</b>	<b>51-60</b>		Passing	
<b>5</b>	<b>less than 50</b>		Failing	