

Study program: <b>Mechatronics</b>			
Type and level of studies: Undergraduate academic studies			
<b>Course unit: Automated Technology Systems - Project</b>			
<b>Teacher in charge: Srećko Ćurčić</b>			
Language of instruction: English			
ECTS: 6			
Prerequisites: No			
Semester: Winter			
<b>Course unit objective</b>			
The main objective of this course is to provide students with knowledge of modern and promising automated technological processes and systems, as well as knowledge of appropriate transformations for various types of production.			
Today, automated technological systems occupy a very significant place among all production systems. By listening to this course, students should become familiar with the principles of designing automated technological systems, as well as the principles of their exploitation. In order to function effectively, these systems need to enable the efficient and rational management of processes: processing, transport, measurement and control.			
<b>Learning outcomes of Course unit</b>			
The outcome of the course is knowledge of control techniques used in pneumatic, electro-pneumatic, electro-hydraulic and hydraulic systems.			
<b>Course unit contents</b>			
Theoretical teaching: The choice of automation techniques. Pneumatic control systems. Hydraulic control systems. Electro-pneumatic control systems. Electro-hydraulic control systems.			
Practical teaching: Computational exercises are dedicated to the development of design examples of automated technological systems processes. Within independent work, students do one (homework) assignment on the design of automated technological systems.			
<b>Literature</b>			
1. Automating Manufacturing Systems with PLCs, Hugh Jack, 2007			
2. Industrial Control Technology, Peng Zhang, 2008			
<b>Number of active teaching hours</b>			<b>Other classes</b>
Lectures:2	Practice:2	Other forms of classes:	
<b>Teaching methods:</b>			
- Lectures			
- Practical exercises			
- Independent work			
<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>10</b>	oral examination	<b>20</b>
Practical classes	<b>30</b>	written examination	<b>10</b>
Tests	<b>10</b>	Project	<b>20</b>
Project			
Other			
<b>Grade</b>			
<b>10</b>	<b>No. of points</b>	<b>Description</b>	
<b>10</b>	<b>91-100</b>	Excellent (A)	
<b>9</b>	<b>81-90</b>	Exceptionally good (B)	
<b>8</b>	<b>71-80</b>	Very good (C)	
<b>7</b>	<b>61-70</b>	Good (D)	
<b>6</b>	<b>51-60</b>	Passing (E)	
<b>5</b>	<b>0-50</b>	Failing (F)	