Study program: Modern computer technologies
Course title: Microcontrollers Architecture
Professor/assistant: Zoran N. Milivojević
Type of course: compulsory
ECTS credits: 6
Pre-requisites: Microcomputer systems

Aims of the course:
The objective of the course is to introduce and train students to understand the architecture of microcontrollers and the mechanism of connecting with external components.

Learning outcomes:
Students will be able to independently design simple hardware modules based on modern microcontrollers compatible with the MCS-51 family.

Syllabus
Theoretical part:
Counters and timers. Serial interface. Interrupts.
Reduced consumption regime. Analysis of the realized microcomputer systems.

Practical part:

Literature

Number of active classes
Lectures: 30 Practical classes: 30 Research work: 40
Other forms of teaching:

Teaching methods
Combination of interactive approach with practical problem solving.

Grading system (maximum 100 points), grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

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<tr>
<th>Pre-exam obligations</th>
<th>points</th>
<th>Final exam</th>
<th>points</th>
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<tr>
<td>activity during theoretical lectures</td>
<td>20</td>
<td>written exam</td>
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<tr>
<td>practical training</td>
<td>10</td>
<td>oral exam</td>
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<tr>
<td>colloquium(s)/seminar papers</td>
<td>40</td>
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<tr>
<td>Sum</td>
<td>70</td>
<td>Sum</td>
<td>30</td>
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