**Digital Electronics (ECTS credits: 5)**

Language: the course is offered in Serbian and Hungarian.

**Course description:**

The first part of the course covers the behavior of basic components in Digital Electronics. The second part, the combinational and sequential circuits are described and analyzed. During the third part, a hardware programming language is introduced to the students.

The following topics are covered:

* Lecture 1. Physical behavior of digital circuits.
* Lecture 2. Delay and hazard.
* Lecture 3. Combinational logic.
* Lecture 4. Mixed circuits,
* Lecture 5. HDL concepts and data types.
* Lecture 6. Gate level programming.
* Lecture 7. Data flow modeling.
* Lecture 8. Behavioral modeling.

**Aims:**

The goals of the course are the following:

* The students have to get an understanding of digital electronic components' data sheets.
* They have to learn the analysis of digital electronic circuits.
* They have to be familiar with waveform drawing.
* Through laboratory practice, they have to be familiar with the implementation of digital electronic circuits on proto-board.
* They have to learn taking measurements with a digital oscilloscope.
* They have to learn the basics of a hardware programming language.