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| Name of the subject: <i>Digital Technics I</i> | NEPTUN code: <i>KAXDT5ABNE</i> | Weekly hours: 3 lec + 0 pr + lab | Credit: 4 Req: exam |
| Subject leader: Dr. Bálint Pődör, CSc | Gradation: (honorary) full professor | Prerequisites: | |
| Description of the subject: | | | |
| <p>This course will give an overview of the basic concepts and applications of digital technics, from Boolean algebra to microprocessors. The aim is to acquaint the future electrical engineers with the fundamentals of digital technics, with the digital circuits, and with their characteristics and applications. In the course of three-semester lectures, classroom-tutorials and laboratory exercises the future electrical engineer should acquire solid knowledge and sufficient proficiency in the functioning, operation, design and applications of digital systems. Fundamentals of digital technics. Logic (Boolean) algebra, logic operations and functions. Combinational logic, analysis and synthesis and implementation of logic circuits. Binary arithmetics, algorithms and circuits. Code systems, code conversion. Combinational circuit functional building blocks, properties and applications. Sequential circuits basics. Flip-flops, elementary sequential functional blocks, counters, registers.</p> | | | |
| Literature | | | |
| <p>Bálint Pődör: Digital technics I (course materials for 1 st year English language course), available in the University E-learning (Moodle) system. An earlier version is also available from the web page of the Institute of Microelectronics and Technology, mti.kvk.uni-obuda.hu Bálint Pődör: Digital technics (course materials for final year elective English language course), available from the web page of the Institute of Microelectronics and Technology, mti.kvk.uni-obuda.hu</p> | | | |