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| FACULTY: | **Faculty of Mechanical Engineering** |
| FIELD OF STUDY: | **Mechatronics** |
| ERASMUS COORDINATOR OF THE FACULTY: | Igor Maciejewski |
| E-MAIL ADDRESS OF THE COORDINATOR: | [igor.maciejewski@tu.koszalin.pl](mailto:igor.maciejewski@tu.koszalin.pl) |
| COURSE TITLE: | **Laboratory of digital techniques** |
| LECTURER’S NAME: | dr inż. Sebastian Pecolt |
| E-MAIL ADDRESS OF THE LECTURER: | [sebastian.pecolt@tu.koszalin.pl](mailto:sebastian.pecolt@tu.koszalin.pl) |
| ECTS POINTS FOR THE COURSE:  COURSE CODE (USOS): | 2 0911>1000-LTC |
| ACADEMIC YEAR: | 2022/2023 |
| SEMESTER:  (W – winter, S – summer) | Winter |
| HOURS IN SEMESTER: | 30 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Laboratories (30h) |
| LANGUAGE OF INSTRUCTION: | English |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | Project work, written reports |
| COURSE CONTENT: | During laboratory exercises, students must design and implement projects on the FPGA Altera DE0 set. Each project must be practically verified. The material includes the laws of logical algebra, logic gates, combinational logic circuits such as: half adders, full adders, multiplexers, demultiplexers, encoders and decoders also a sequential logic circuits such as circuits include clocks, flip-flops, bi-stabiles, counters, memories, and registers. |
| ADDITIONAL INFORMATION: |  |