

Computer Architecture

Contact:

dr inż. Witold Marańda

Department of Microelectronics and Computer Science

Wólczańska 221/223, B18, room 50

www.dmcs.p.lodz.pl

Final mark:

examination: 60%

excercises: 20%

laboratory: 20%

Course content

Fundamentals of computer architectures:

- *numbering systems*
- *integer numbers representation*
- *adders and multipliers*
- *FP arithmetics*
- *processor datapath and control*
- *basics of machine language*
- *microprogrammed architecture* (+ labs)
- *pipelined architecture* (+ labs)
- *cache memory systems*
- *virtual memory concept*
- *serial buses*

References - textbooks

J. L. Hennessy, D. A. Patterson,
Computer Organization & Design,
2nd Ed., Morgan-Kaufmann Publishers, 1998
3rd Ed., Morgan-Kaufmann Publishers, 2005
4th Ed., Morgan-Kaufmann Publishers, 2011
5th Ed., Morgan-Kaufmann Publishers, 2013