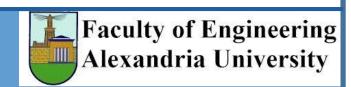
CC 322: COMPUTER ARCHITECTURE

Dr. Mohammed M. Farag





Course Staff

- □Instructor:
 - □Dr. Mohammed Morsy (mmorsy@ieee.org)
 - 4th Floor ECE Building
- □TAs:
 - **□**TBD
- □Office hours:
 - Thursday: 10:00-11:30AM



Basic Info.

- Textbooks
 - "Digital Design and Computer Architecture", David Harris, Sarah Harris, 2nd Edition
- Supplementary References
 - "Computer organization and architecture: designing for performance". William Stallings, 8th Edition
- Prerequisites
 - □ Digital and Logic design
 - Computer Organization
- Computer tools:
 - https://www.aldec.com/en/products/fpga_simulation/active_hdl_ student



Course Outline

- Design principles associated with modern computer architectures
- Performance and cost considerations
- Processor Design using Hardware Description Languages
- □ RISC Instruction Set Architecture
- MIPS Micro-Architecture
- Memory and I/O Systems



Course Work

- □ 5 Labs: Using HDL to design a small MIPS processor
 - □ Lab work: 10 marks
- Project: Design and testing of various processor architectures using HDL
 - □10 marks
- Homework Assignments
 - □10 marks
- □ A Midterm exam
 - □20 marks
- □ A Final Exam
 - □50 marks



Course Webpage

All course materials and lecture slides will be published to the following website:

http://eng.staff.alexu.edu.eg/~mmorsy/Courses/Undergraduate/ CC322_Computer_Architecture/CC322.html

Announcements and course updates will be published on the course webpage