Instructor: Prof. Chung-Ho Chen (陳中和)
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T. A: 江定遠 et. al. (CASL lab, 92617)
Class: Tu, 3:10 - 6:00pm, EE: 92277

Web page: http://caslab.ee.ncku.edu.tw
Class Format

- Review
- Lecture
- Administrative Matters
- Lecture/Discussion
- Discussion based on your questions
Grading

- 20% Homework and Project (CPU simulator)
- 60% Examinations (3 Quizzes)
- 20% Class Participation
Class outline

• Introduction
  – Computer abstractions and technology

• Performance
• Instructions
  – MIPS instruction set
  – ARM instructions set

• Arithmetic for computer
  – +, -, X, /, and FP unit

• Processor design
  – data-path and control
  – Single cycle and multiple cycle implementation
• Pipeline
  – Pipeline data path and control
• Memory Hierarchy
  – Cache memory, virtual memory
• Storage, I/O
  – I/O bus, program interface, DMA

• Multi-cores and multiprocessors