Administrivia: Computer Organization

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T. A: TBA (CASL lab, 92617)


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
• Instruction ISA
  – 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
• Advanced topics