
UIUC ECE 512

Course Summary

Wen-mei Hwu
ECE

University of Illinois,
Urbana-Champaign

Basic Lectures

- Processor
 - I-Fetch
 - OoO
 - Renaming, Scheduling
 - State recovery
 - VLIW/EPIC
 - Trace, superblock, hyperblock
 - Modulo scheduling
 - Control and data speculation
 - Predication
- Memory System
 - DRAM, SDRAM, DDR-SDRAM, R-DRAM, tec.
- Application Specific
 - Common DSP ISA features, design examples

Your presentations

- Reality of OoO Design
- Reality of EPIC Design
- Power efficient design
- Dynamic Optimization
- Multicore Programming
- Reconfigurable Computing
- Fabrication Technology
- Application specific Designs

Grading

- Exam - 40%
 - lectures and reading
- Project Report - 30%
 - proposal and final report
 - technical and presentation

Grading (cont.)

- Project Presentation - 20%
 - technical, organization, oral, Q&A
- Class Participation - 10%
 - questions, comments, suggestions
 - in class or e-mail