PGT206 – Computer Architecture

Course Objectives

- **CO1**: Ability to interpret the theoretical aspects of computer organization and architecture
- **CO2**: Ability to analyze existing design using theoretical knowledge and/or simulation tools
- **CO3**: Ability to design and evaluate basic implementation of a microprocessor core based on given specifications

Course Assessment

	Examinations		Course Work		
Total Contribution	60%		40%		
Assessment	Mid-Term	Finals	Assignments	Lab Assessments	Lab Project
Contribution	20%	40%	10%	20%	10%

Course Requirements

- Digital Electronics
  - Combinational logic (gates)
  - Sequential logic (flip-flops)
  - Logic design
- Basic microprocessor architecture
  - registers, ALU
  - memory, data bus
  - I/O, peripherals
- A lot of time...

Course Reference

- Textbook
  - Ian McLoughlin, “Computer Architecture: An Embedded Approach”, McGraw Hill,2011
- Reference
  - checkout course site for general references
  - Any reference on Verilog (HDL in general)
  - Any reference on using Quartus software
- Official Course Site
  - http://azman.unimap.edu.my/dokuwiki/doku.php?id=pgt206