

# CPE 731: Advanced Computer Architecture

Research Report and Presentation

# Purpose

- Select an **active** research topic in computer architecture.
- Example topics: speculative execution, multi-threading, multi-core, memory hierarchy, low-power processors, storage systems, high-rate input/output, etc.
- Survey **original** and **recent** research papers.
- Describe **basic** ideas and **state-of-the-art** solutions.
- Give **conclusions** and expected **future** directions.

# General

- Marks: 30%
  - Report 15%
  - Presentation 15%
- Timing
  - After midterm: **Submit proposal**
  - Last week: **Submit report and present project**

# Research Proposal

- Two-page proposal
- Specify research topic
- Specify important references
- Structure
  - Title
  - Student name
  - History
  - Motivation
  - Recent developments
  - References

# Research Report

- 6 to 12-page report
- Use IEEE A4 conference template at [http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html)
- Structure
  - Title and student name
  - Abstract
  - Introduction
  - Literature survey
  - Sections to describe and evaluate recent solutions
  - Conclusions and future directions
  - References

# Research Presentation

- Prepare Power Point slides
- Ten to fifteen minutes
- Must be clear and useful presentation, must add knowledge to fellow colleagues.