

COMPUTER ARCHITECTURE

INTRODUCTION

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Course Reference Materials

- Textbook

- *David Patterson and John Hennessy*, Computer Organization and Design, The Hardware/Software Interface, Fourth Edition, ARM Edition, 2010

- Also available

- *David Patterson and John Hennessy*, Computer Organization and Design, The Hardware/Software Interface, Fourth Edition, 2008

- Advanced and Detailed Reference

- *John Hennessy and David Patterson*, Computer Architecture: A Quantitative Approach, 4th Edition, 2006

- Even more: <http://en.wikipedia.org>

David Andrew Patterson

- An American **computer pioneer** and academic who has held the position of Professor of Computer Science at the University of California, Berkeley since 1977.
- Patterson is noted for his pioneering contributions to **RISC processor** design, having coined the term RISC, and by leading the Berkeley RISC project.
- He is also one of the innovators of the Redundant Arrays of Independent Disks (**RAID**), and Network of Workstations (**NOW**)
- His book on computer architecture (co-authored with John L. Hennessy) is widely used in computer science education.
- [http://en.wikipedia.org/wiki/David_Patterson_\(scientist\)](http://en.wikipedia.org/wiki/David_Patterson_(scientist))

John L. Hennessy

- An American computer scientist, academician, and businessman.
- Hennessy is one of the founders of **MIPS Computer Systems Inc.** and is **the 10th President of Stanford University.**
- Marc Andreessen called him "the godfather of Silicon Valley."
- http://en.wikipedia.org/wiki/John_L._Hennessy

Lectures, Assignments and Labs

- Lectures, Assignments and Laboratory Material are available:
 - Lectures, Labs and Assignments:
 - Email: `coa.2012.course@gmail.com`
passwd: `sjtusome`
 - <http://ic.sjtu.edu.cn/ic/coa/>
 - Homework Submission:
 - Email: `coa.2012.assignment@gmail.com`
- Team Project: Simple RISC Processor
- Prerequisite: HDL, Verilog is preferred

Assessment and Evaluation

- Assignment: 10%
- Labs & **Team Project**: 30%
 - **Presentation** is very important
- Final Examination: 50%
- Others: 10%