Lecture 0

Overview of the Lecture

Revised by WJ Han

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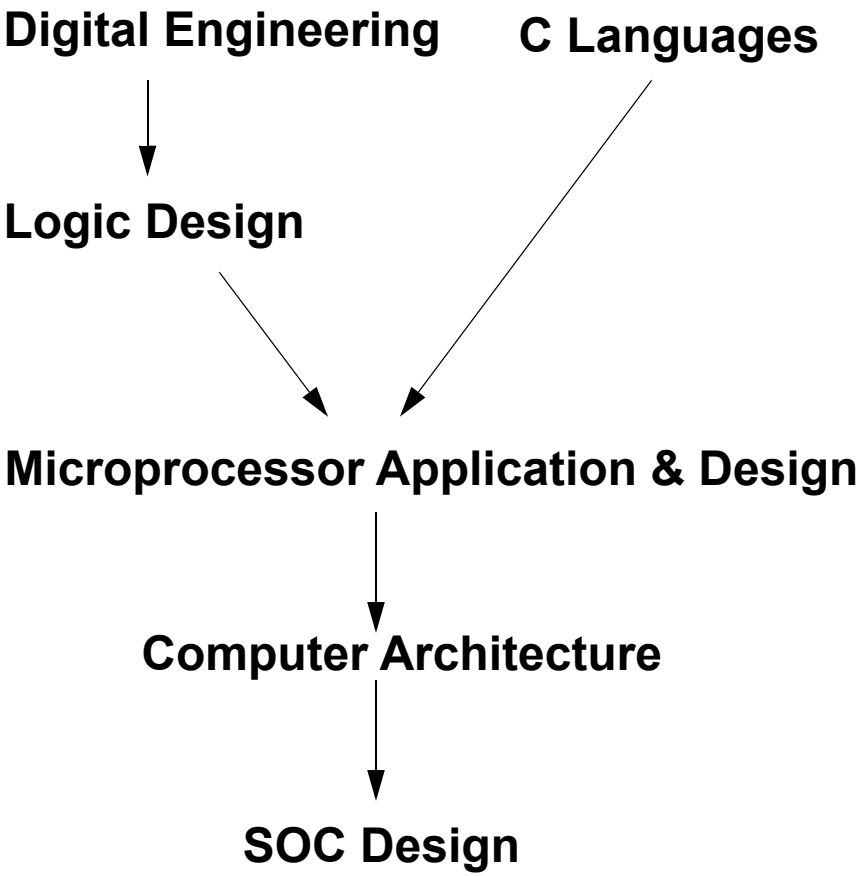
Digital Engineering

- **Analog systems process signals that can take on any value across a continuous range of voltage, current, etc.**
- **Digital systems take on any value too but we pretend they don't.**
- **Digital systems are modeled to take on only one of two values (1 or 0, True or False, High or Low, Tom and Jerry, whatever).**
- **Things are much simpler if we use digital representation.**

Digital Engineering Application

- Digital systems like computers, TV, audio, ...
- VLSI (ASIC) design.
- Communication
- Signal processing
- In fact, it is much easier to list the fields that do not need digital engineering background these days.

Relevant Courses



Course Road Map

- **Basic Theory**
- **Gate-Level Minimization**
- **Combinational Logic**

Recommended Textbooks

- **Digital Design, 5rd Edition, M. Mano / Michael D. Ciletti, Pearson 2013**

Class Notes

- You can get the class notes in pdf format from my web site, http://www.eshopping.co.kr
- The class notes are in pdf format so you need Adobe Acrobat Reader which can be downloaded from “http://www.adobe.com”.

Class Policy

- If you do not take any midterm or final exam, your grade will be F.
- There will be no exceptions.

Grading

- **Midterm Exam : 40%**
- **Final Exam : 40%**
- **Quiz : 10%**
- **Attendance : 10%**

If You Need to Talk to Me

- **We can talk about anything (except missed homework or exams).**
- **Please let me know through email at wjh@korea.com or talk to me after class.**