Computer System Design
School of Computer Science and Engineering
Seoul National University

Syllabus, fall 2007

Last modified: 30 Oct 2007

Professor : Naehyuck Chang, 301-506, ☎ 880-1834 , naehyuck@snu.ac.kr

Teaching assistant: Younghyun Kim, 301-551, ☎ 880-1836, yhkim@elpl.snu.ac.kr

Jihun Kim, 301-551, ☎ 880-1836, jhkim@elpl.snu.ac.kr

Class home page: http://cslab.snu.ac.kr/course/cad07
Check the home page before every class
Prerequisite: Electrical and Electronic Circuits (4190.206A), Logic Design (4190.201)
Grade: Mid exam (40%), Final exam (50%), Attendance (10%)

Schedule

Week	Lecture		Experiment	
1	9/4 9/6	0. Introduction to prototype implementation techniques 1. Circuit theory review	9/3 9/5	Orientation Basic Soldering technique (1)
2	9/11 9/13	2. Soldering techniques - Demonstration of Soldering techniques	9/10 9/12	Basic Soldering technique (2) Design with 74 Series
3	9/18 9/20	3. Power supply theory and practice 4. Theory of oscilloscope	9/17 9/19	RTL Experiment TTL Experiment
4	. 9/27	5. Diode and Diode Logic	9/24 9/26	No experiment (Chuseok holiday)
5	10/2 10/4	6. Transistors, DTL, RTL and TTL (1) - remote lecture 7. Transistors, DTL, RTL and TTL (2) - remote lecture	10/1 .	XUPV2P platform introduction Schematic design
6	10/9 10/11	8. MOSFET, NMOS and CMOS (1) 9. MOSFET, NMOS and CMOS (2)	10/8 10/10	Dynamic display Introduction to Verilog & Xilinx foundation
7	10/16 10/18	10. LED dynamic display & Chatter-less Switch - remote lecture Supplement experiment of dynamic display	10/15 10/17	Dynamic keypad RS232 (UART)
8	10/23 10/25	11. Synchronous State Machines 12. Data conversion	10/22 10/24	Integration of dynamic display, dynamic keypad and RS232
9	10/30 11/1	13. Passive voltage scaling (seminar) 14. Logic synthesis (1)	10/29 10/31	ADC / DAC Photo diode and Temp. sensor
10	11/6 11/8	Self study (moved from 10/25) 15. Logic synthesis (2) - remote lecture	11/5 11/7	LCD display Midterm project

Week	Lecture		Experiment	
11	11/13 11/15	16. High-speed digital design consideration 17. Power consumption of digital circuits (1)	11/12 11/14	Midterm project evaluation Power supply design
12	11/20 11/22	18. Power consumption of digital circuits (2) 19. Low-power design work in ELPL	11/19 11/21	Submission of the request for final project proposal
13	11/27 11/29	20. Supplement class (for 10/18) - Project plan presentation and Dining together 21. Power supply design (1)	11/26 11/28	Final project Final project
14	12/4 12/6	22. Power supply design (2)	12/3 12/5	Final project Final project
15	12/11 12/13	Final Exam.	12/10 12/12	Final project Final project evaluation