ECE359 Fall 2007
Advanced VLSI Design
TTh 9:30-10:45 a.m. E2-321

Course Description**:** *3 credits. Recommended preparation: ECE 249 and ECE 252.* This course aims to convey knowledge of advanced concepts of circuit design for digital VLSI components in state of the art MOS technologies. Emphasis is on the circuit design, optimization, RTL design, synthesis, and layout of either very high speed, high density, or low power circuits and systems for use in applications such as micro-processors, signal and multimedia processors, memory and periphery. Special attention will be devoted to the most important challenges facing digital circuit designers today and in the coming decade, being the impact of scaling, deep submicron effects, interconnect, signal integrity, power distribution and consumption and timing issues.

Instructor:

Professor Yunsi Fei
Office: ITE439
Tel: 860-486-2192
Office hour: Mon. 3:00-5:00 p.m. (tentative)
Email: yfei@engr.uconn.edu
Website: http://vista.uconn.edu/

Text:

Digital Integrated Circuits – A Design Perspective by Jan M. Rabaey, Anantha Chandrakasan, Borivoje Nikolic, 2nd Edition, Prentice Hall.

Companion website: http://bwrc.eecs.berkeley.edu/IcBook/

Reference:

Modern VLSI Design by Wayne Wolf**,** 3rd Edition, Prentice Hall.

Grading Policy (tentative)*:*

Final project	45%
Final exam	35%
Homework	20%