ECE 431: DIGITAL INTEGRATED CIRCUIT ANALYSIS AND DESIGN

Time and location: TR 10:30 – 11:45 am, STI Rm #112

Instructor: Dimitris Ioannou, ST2 Rm. #247, tel. 993-1580, dioannou@gmu.edu

Office Hours: TR 1:30 – 2:30 pm. Other times can be arranged by appointment.

Textbook: "CMOS DIGITAL INTEGRATED CIRCUITS"


COURSE OUTLINE

1. Basics of MOSFET operation and SPICE modeling
2. MOS inverters: static characteristics
3. MOS inverters: dynamic operation
4. CMOS Layout and Simulation
5. Combinational MOS logic circuits
6. Sequential MOS logic circuits
7. Dynamic MOS logic circuits
8. Semiconductor memories

Grading

Homework: - 10%
Project: - 10%
Test 1 - 20%
Test 2 - 20%
Final - 40%