CSE321: Digital Electronics

COURSE CONTENT

Analysis and design of digital electronic circuits, ideal inverter, CMOS inverter, static logic gates, sequential logic circuits, flip-flops, Schmitt trigger, oscillator circuits, dynamic logic, dynamic flip-flop, regular structures, serial memory.

SCHEDULE

Lecture: Thursday 11:00-13:00
Lab 1: Tuesday 11:00-13:00
Lab 2: Wednesday 14:00-16:00

INSTRUCTOR

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TEXTBOOK

"Principles and Applications of Electrical Engineering", by Giorgio Rizzoni
McGraw - Hill, Revised Fourth Edition

GRADING

First Midterm	20%
Second Midterm	20%
Laboratory	25%
Final	25%

OUTLINE

- Operational Amplifiers
- Diodes, BJTs and FETs, their use in digital gates
- Digital to Analog, Analog to Digital Converters
- Schmitt Triggers, Multivibrators
- Digital to Analog Converters
- Analog to Digital Converters
- Multiplexers, Encoders, Decoders
- Flip-flops, counters, registers
- Digital Data Transmission
- More topics as time permits