

Introduction

Friday, January 29, 2010

08:43

→ Post office hours and lab hours on Blackboard.

Current Blackboard password: "Digitalrocks"
↳ 224

Course Admin: Dan Richter (228 Philips)

ECE474 → This is NOT a CDE.

→ all this means is that labs are called "homework"

Labs/Projects due Wednesdays at beginning of lecture

→ Project 1: individual

→ Project 2: team

Labs are check-off based

→ TA's will visit the labs to check off the labs

Deadlines are final in spite of machines being down!!

Late Policy

→ < 24hrs -10%

< 48hrs -30%

> 48 0

Academic Integrity

→ cite the crap out of everything!

→ sources

→ collaborators

Exams

- 8.5" x 11" handwritten cheat sheet
- calculators ok, no internet
- 2 midterms
 - 3/15/2010 M @ 7pm
 - ~~5/7/2010 F @ 7pm~~ → slope day
 - 5/5/2010 M @ 7pm

Grading

- HW/Labs 15%
- Project
- Midterm 1 20%
- Midterm 2 25%

VLSI → Very Large Scale Integration

CMOS → Complementary Metal Oxide Semiconductor

We'll be using Cadence.

Babbage Difference Engine (base 10)


- 25k parts
- 17.47k ft
- too much slop, too precise, ridiculous tolerances

Amit Lal (DARPA/MTO NEMS)

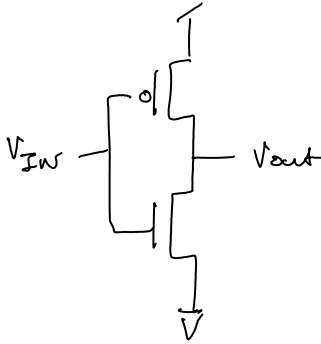
→ nano-scale Babbage Difference Engine

Standard Moore's Law, Power wall still

NMOS / CMOS

NMOS \rightarrow CMOS power curves 

Quiz



Draw Voltage Transfer Characteristic

