

Content

- Includes an introduction to VLSI Design in CMOS

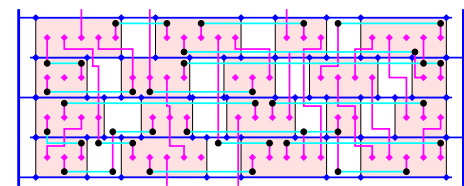
Taught by

- Iain McNally
- Koushik Maharatna

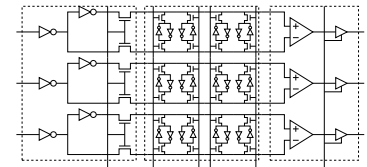
Assessment

- Examination 90%
 - Coursework 10%
- L-Edit Logic Gate Design and Layout

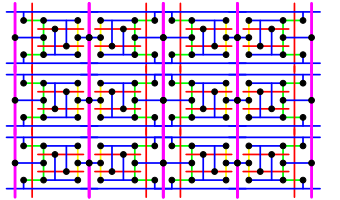
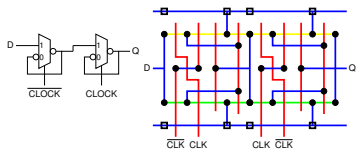
System Design using Standard Cells



Structured Macros



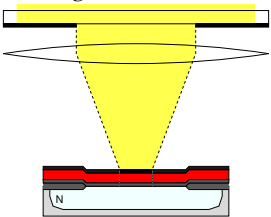
Static CMOS Circuits



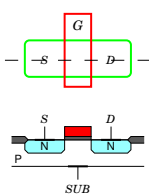
For more details see:

<http://users.ecs.soton.ac.uk/bim/notes/icd>

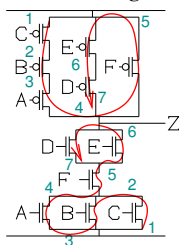
Processing



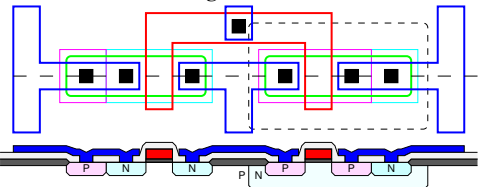
Transistor Construction



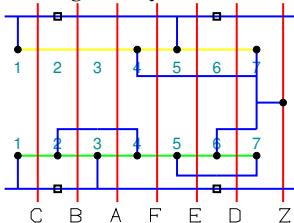
Euler Path Design



Mask Level Circuit Design



Stick Diagram Layout



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Part II

D2 IC Design Exercise

Simple Digital System Design using "Black Box" Standard Cells

Part III

ELEC3221 Digital IC & Systems Design

An Introduction to VLSI Design in CMOS

Part IV

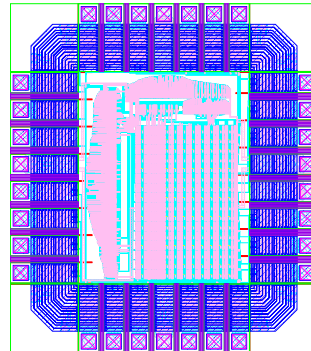
ELEC6230 VLSI Systems Design

Lots of hands—on CAD

ELEC6231 VLSI Design Project

Complex System Design

Complete Custom IC Design Flow



ELEC6231 Novel 16-bit Microprocessor
(The best design from each year is fabricated)