ELEC3221 Digital IC & Systems Design

Content

- Includes an introduction to VLSI Design in CMOS

Taught by

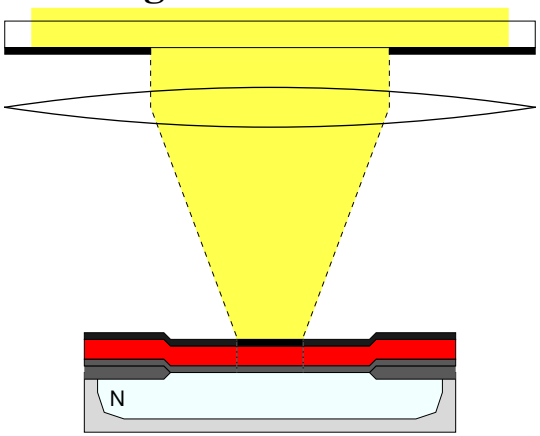
- Iain McNally
- Koushik Maharatna

Assessment

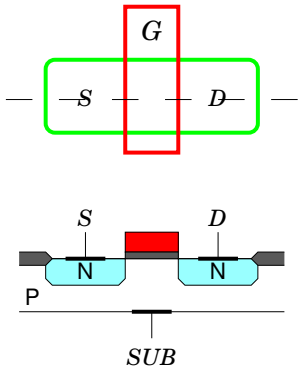
- Examination 90%
- Coursework 10%

  L-Edit Logic Gate Design and Layout

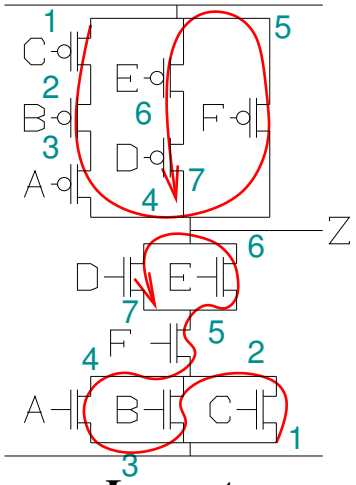
Processing



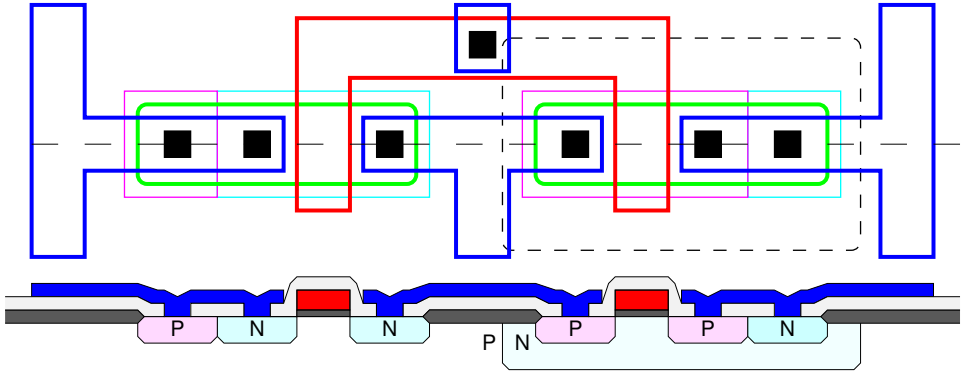
Transistor Construction



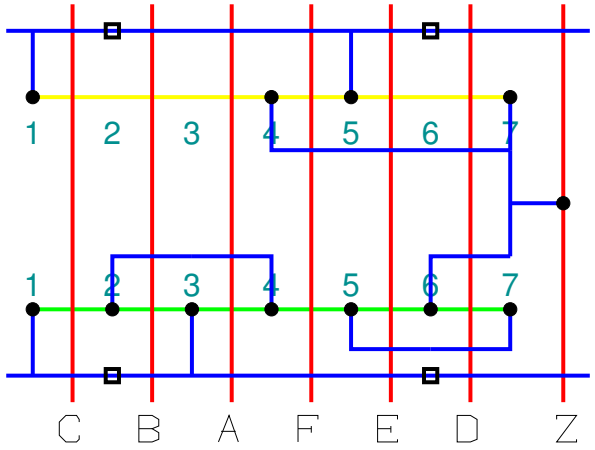
Euler Path Design



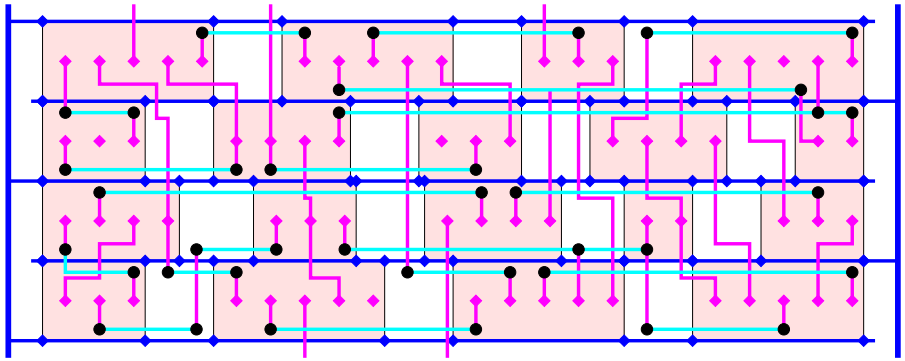
Mask Level Circuit Design



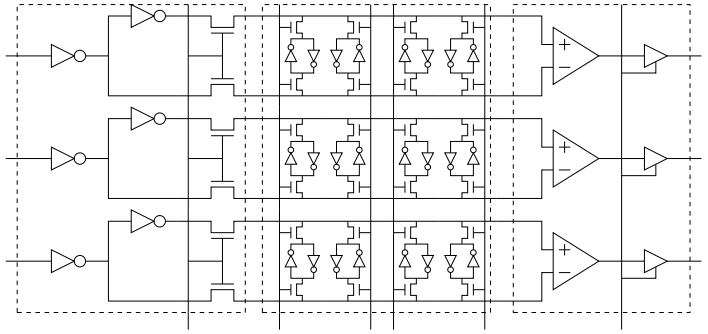
Stick Diagram Layout

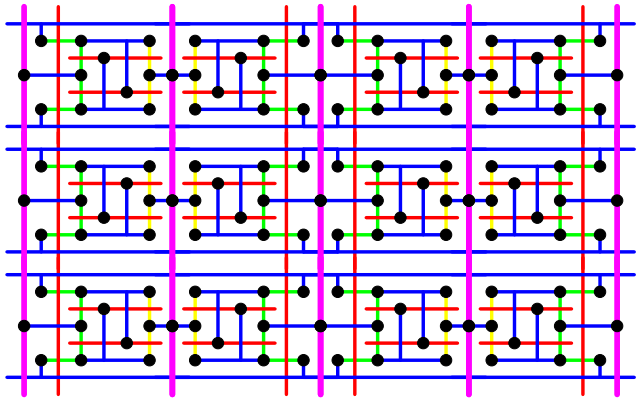


System Design using Standard Cells

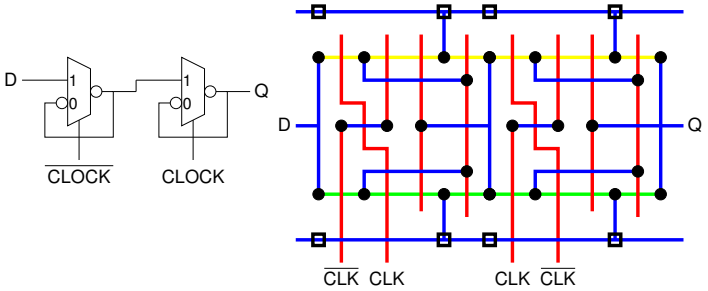


Structured Macros





Static CMOS Circuits



For more details see:

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

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Part II

D2 IC Design Exercise

Simple Digital System Design using "Black Box" Standard Cells

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Part III

ELEC3221 Digital IC & Systems Design

An Introduction to VLSI Design in CMOS

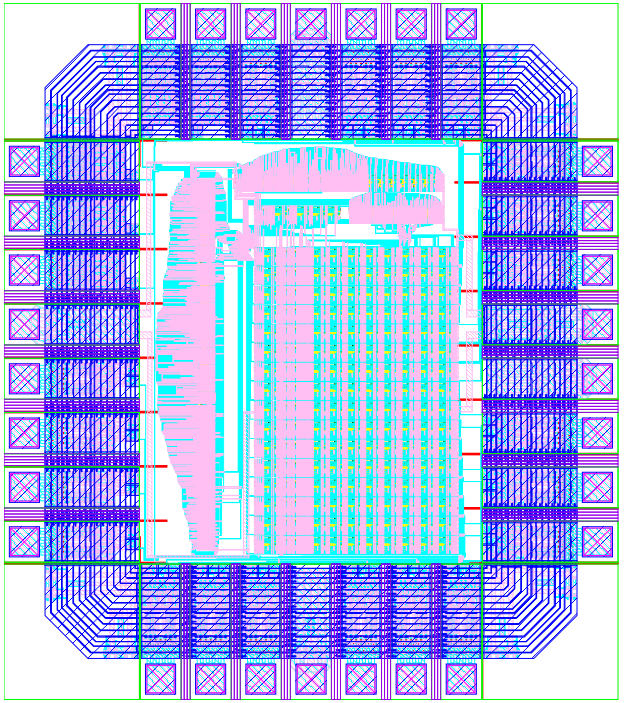
Part IV

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)