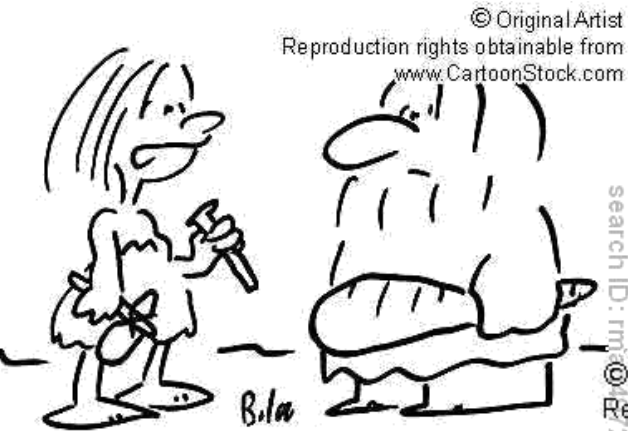


Digital Microelectronic Circuits (361-1-3021)

Presented by: Mr. Adam Teman

Appendix to Lecture 2: Manufacturing Integrated Circuits

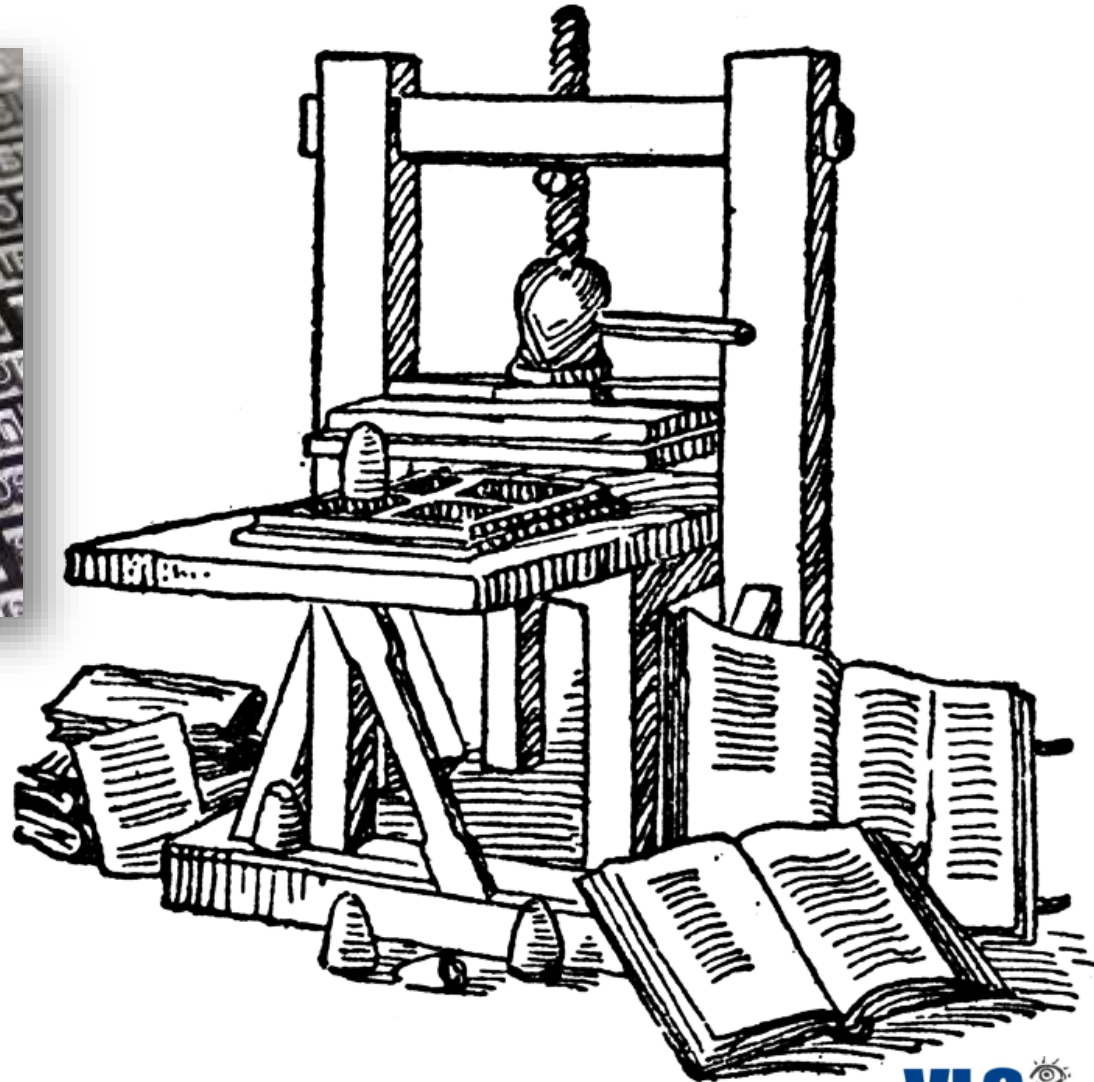
Motivation



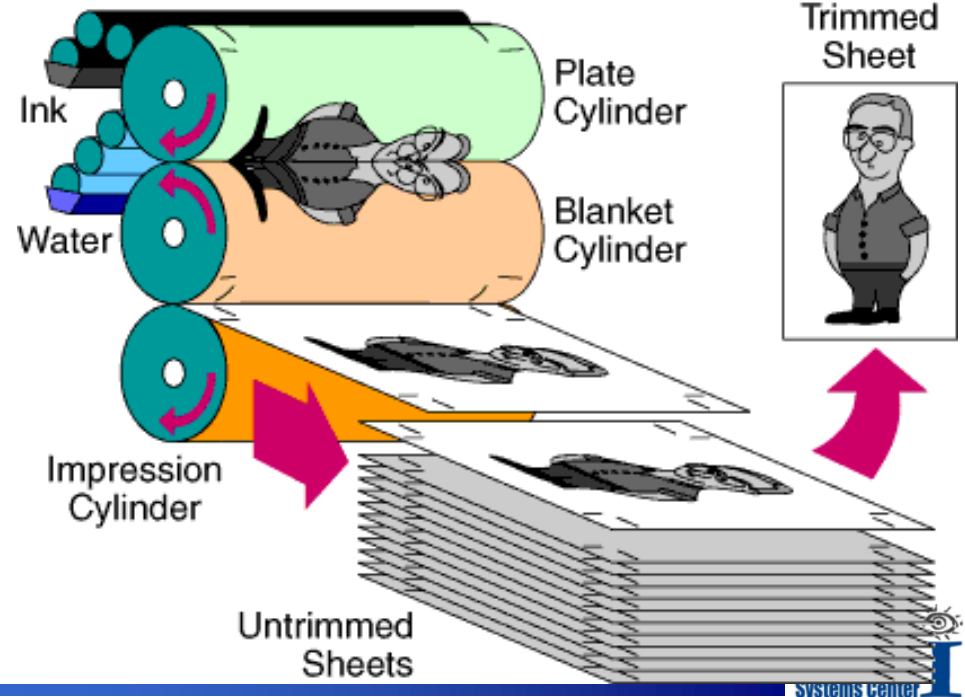
I'VE DECIDED TO WRITE A NOVEL!!



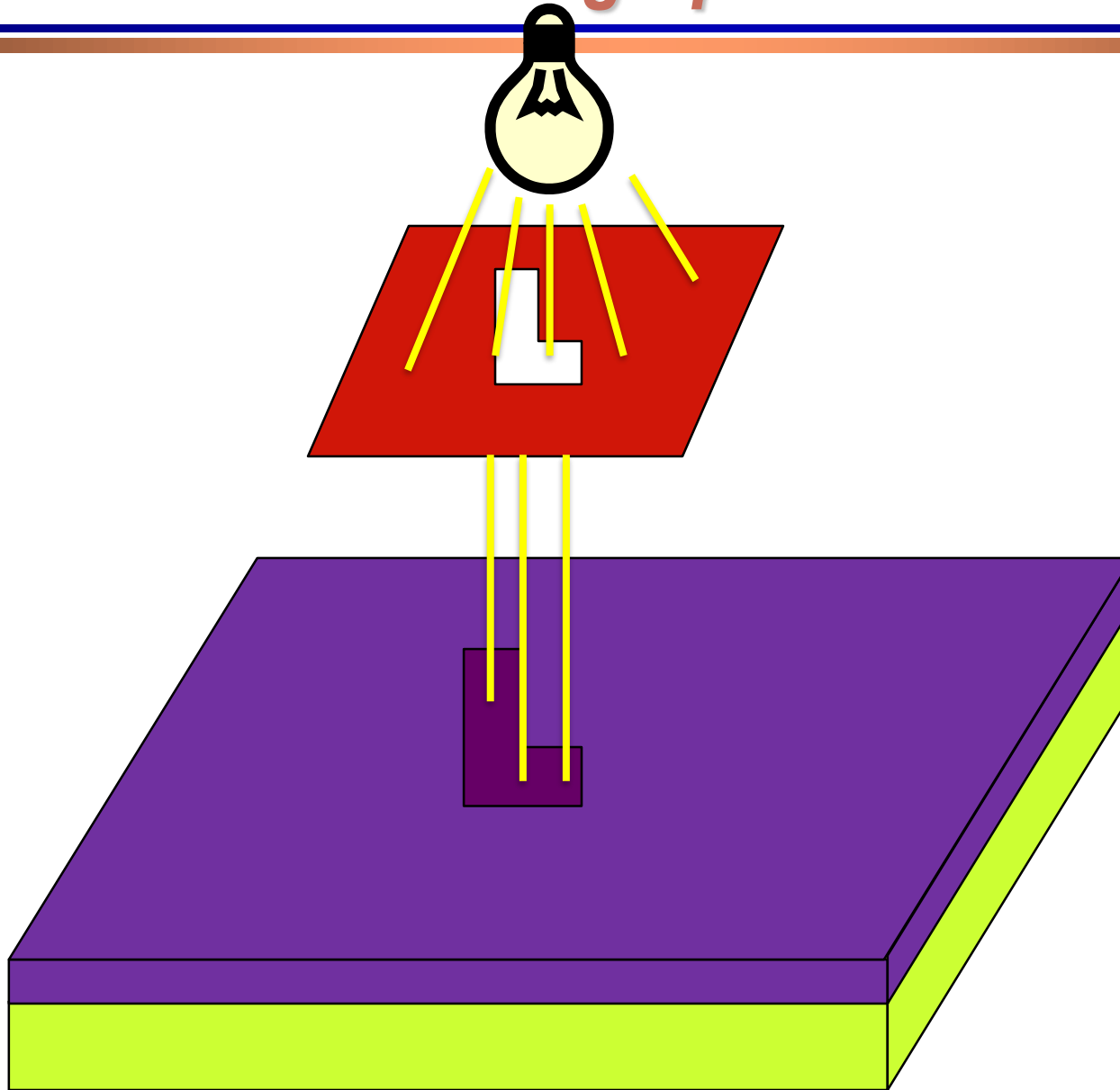
Solution



The Printing Process

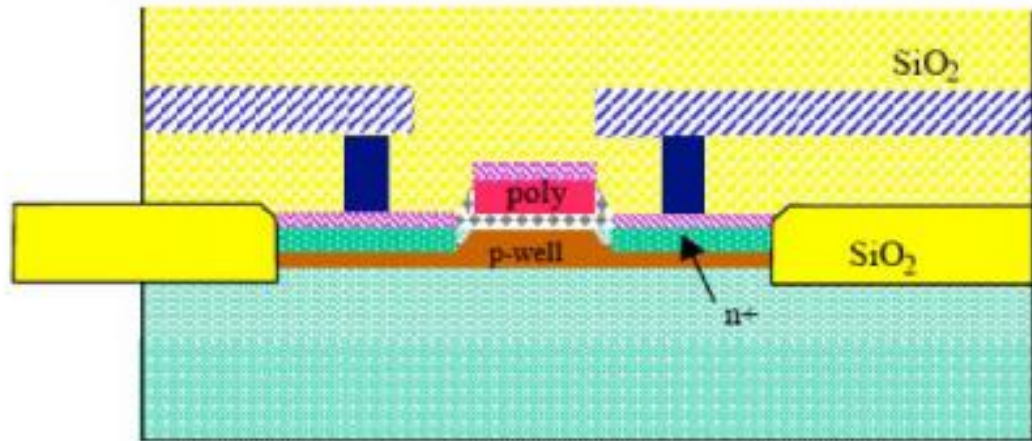


The Photolithographic Process

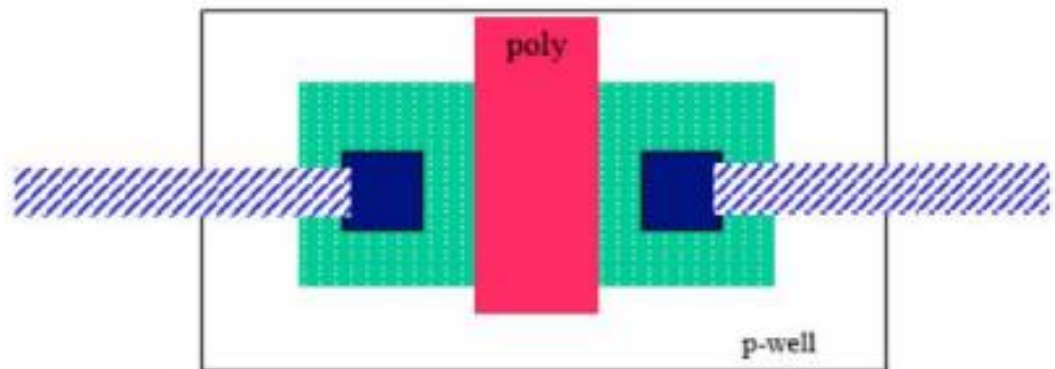


Transistor Layout

Cross-Sectional View



Layout View



CMOS Process/Transistors

Basic Process Flow

Lightly Doped Wafer

Grow Field Oxide

Define Wells

Grow Gate Oxide

Deposit Poly Gate

Etch Gates

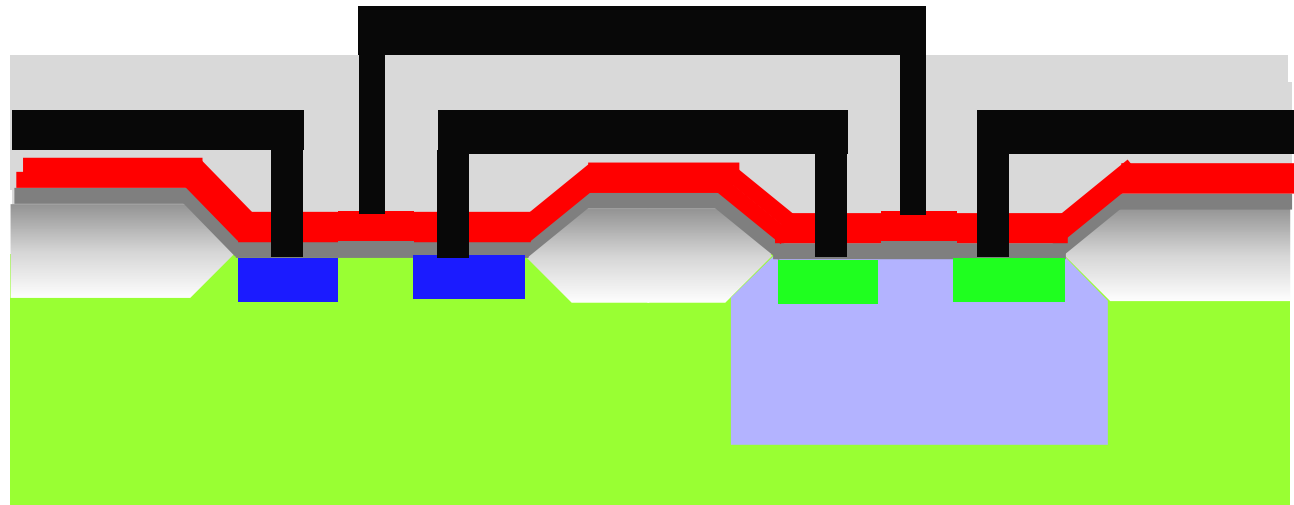
Implant Source/Drain

Deposit Isolation
Oxide and Contacts

Deposit Metal 1

Deposit Isolation
Oxide and Via 1

Deposit Metal 2



Photos

