

## VLSI Design

### Homework 1

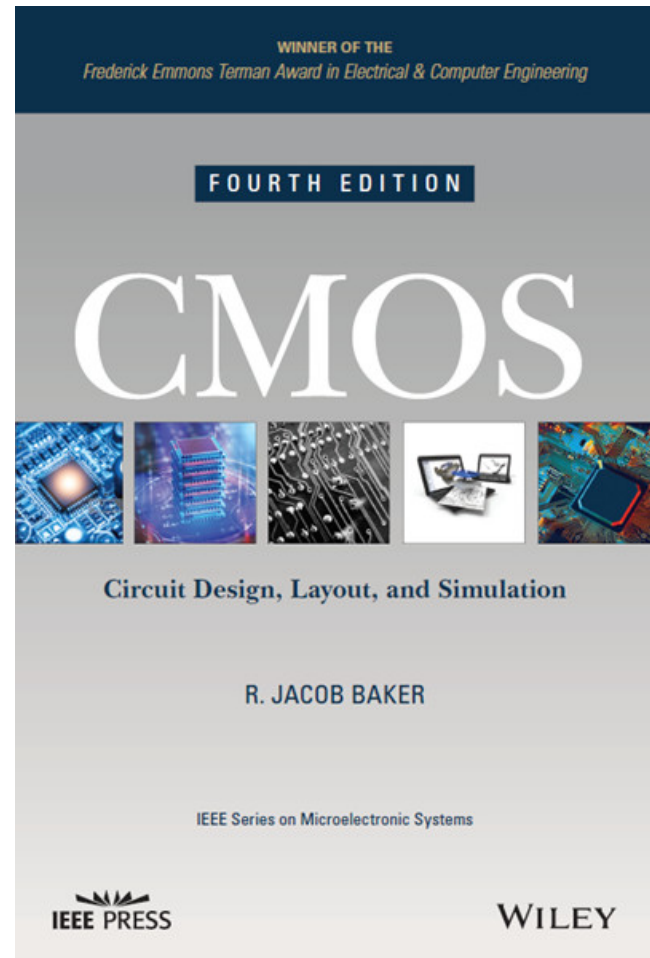
**Due Date:** Feb. 13, 2024 @ 1:15pm

**Description:** This assignment will survey what you have learned thus far using problems from R. Baker's "CMOS Circuit Design, Layout, and Simulation"

**Associated Reading Material:** Chapters 5 (Sections 5.1-5.3), 6 (Entire Chapter), 7 (Entire Chapter), 11 (Sections 11.1-11.3), and 12 (Sections 12.1-12.3)

#### Problems:

- 5.7 (Layout-to-Schematic Analysis)
- 6.4 (MOS capacitance)
- 6.12 (Channel resistance)
- 6.13 (Parallel MOSFET Connections)
- 6.15 (Series MOSFET Connections)
- 7.4 (Ion Implantation)
- 7.10 (Metal Deposition)
- 11.1 (Inverter DC Characteristics)
- 11.3 (Inverter Switching Point)
- 12.2 (Logic Gate Design and Simulation)



**Deliverables:** Create a single PDF document highlighting all results and showing supporting work. Submit via Canvas no later than Feb. 13 at 1:15 pm.