

CSCE 5730/4730: Digital CMOS VLSI Design

Assignment # 2, Total Marks = 100.

Assigned Date: 6th Oct 2009 (Wed), Due Date: 13th Oct 2009 (Wed)

Instructor: Dr. Saraju P. Mohanty

1. Using LTspice perform the transistor level static CMOS realization of 2-input logic gates (Inverter/NAND/NOR/AND/OR/XOR). Perform their simulation to verify the truth tables.
2. Synthesize the Boolean function $F = (A \cdot B)' + C \cdot D$. Show all the steps. Verify the circuit functionality using LTspice.

NOTE: You can use information from the following:

http://www.cse.unt.edu/~smohanty/teaching/09Fall_VLSI/LectureSlides/VLSI3_LTspice.pdf