

CSCE 5730/4730: Digital CMOS VLSI Design

Assignment # 4, Total Marks = 100 points.

Assigned Date: 8th April 2009 (Wed), Due Date: 15th April 2009 (Wed)

Instructor: Dr. Saraju P. Mohanty

1. Design a 4:1 mux using transmission gates and simulate it using LTspice.
2. Design a D flip-flop using transmission gates and simulate using LTspice.
3. Simulate the above flip-flop for non-overlapping clocks using LTspice.
4. Using transistor models produce current-voltage characteristics of a NMOS. Use a spreadsheet or MATLAB for the purpose. Assume the parameters from any text book.