



Indian Institute of Technology
Hyderabad

Electrical Engineering
Indian Institute of Technology Hyd
CMOS VLSI Design

September 9, 2025

Deadline: 05 Sep 2025

Assignment # 3

Maximum Marks: TBD

Instructions:

1. Use Cadence (with GPDK) or LT Spice + Electric software for the simulations.
2. Download the software from
<https://www.staticfreesoft.com/productsFree.html>

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1. Make schematic and layout of a static CMOS Inverter with proper DRC + LVS + Antenna Error clean. Run the RC extraction of the same and compare with schematic result. Find the maximum switching frequency for both cases.
 2. Repeat Q1 for 3 input NAND and NOR gate with proper sizing.
 3. Repeat Q1 and Q2 for a load capacitance of 1 pF.