Department: Electronics and Communication Engineering

KEC653B - CAD FOR ELECTRONICS LAB
LIST OF EXPERIMENT

SUGGESTIVE LIST OF EXPERIMENTS

Part A

PSPICE Experiments:

1. (a) Transient Analysis of BJT inverter using step input.

   (b) DC Analysis (VTC) of BJT inverter

2. (a) Transient Analysis of NMOS inverter using step input.

   (b) Transient Analysis of NMOS inverter using pulse input.

   (c) DC Analysis (VTC) of NMOS inverter.

3. (a) Analysis of CMOS inverter using step input.

   (b) Transient Analysis of CMOS inverter using step input with parameters.

   (c) Transient Analysis of CMOS inverter using pulse input.

   (d) Transient Analysis of CMOS inverter using pulse input with parameters.

   (e) DC Analysis (VTC) of CMOS inverter with and without parameters.

4. Transient & DC Analysis of NAND Gate using CMOS inverter.

5. Transient Analysis of NOR Gate inverter and implementation of XOR gate using NOR gate

6. To design and perform transient analysis of D latch using CMOS inverter.

7. To design and perform the transient analysis of SR latch circuit using CMOS inverter.

8. To design and perform the transient analysis of CMOS transmission gate.

9. Analysis of frequency response of Common Source amplifiers.

10. Analysis of frequency response of Source Follower amplifiers

Part B

HDL (using VHDL program module & verilog Module)

VHDL PROGRAMS:

1. Design and Simulation of Full Adder using VHDL program module

2. Design and Simulation of 4x1 MUX using VHDL program module

3. Design and Simulation of BCD to Excess-3 code using VHDL program module

4. Design and Simulation of 3 to 8 decoder using VHDL program module

5. Design and Simulation of JK Flip-flop using VHDL program module

6. Design and Simulation of CMOS Inverter using verilog Module

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LIST OF EQUIPMENT

Subject Code of the Lab: KEC653B

Name of the Lab: CAD FOR ELECTRONICS LAB

S. No.	Name of Equipment
1	COMPUTER SYSTEM
2	OrCAD Simulation Software
3	Modelsim