



Department of Electronics and Communication Engineering

DIGITAL LOGIC DESIGN LABORATORY

II B.Tech I Semester

Course Code: A223481

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Course Outcomes:

Upon completing this course, the students will be able to

1. Design of all logic gates by using universal gates.
2. Design of adder and subtractor by using logic gates.
3. Design of MSI combinational circuits by using logic gates.
4. Design and analyze counters by using flip-flops.
5. Analyze the universal shift register.

List of Experiments

Note: Minimum 10 Experiments have to be conducted

1. Design of all logic gates using NAND/NOR gates and verify the truth tables.
2. Realization of Boolean Expressions using Logic Gates.
3. Design full adder & full subtractor using NAND/NOR gates and verify the truth table.
4. Verification of 4-bit Parallel adder /subtractor circuit.
5. Design of 4-bit gray to binary code converter.
6. Design any 4 variable functions using 8:1 Multiplexer and verify.
7. Design and realization 2-bit comparator.
8. Verification of 4-bit Magnitude comparator
9. Design full adder using 3*8 Decoder and verify.
10. Design T & D flip flops using JK flip flop and verify the truth table.
11. Verification of 4-bit Decade counter
12. Verification of Universal Shift Register