COURSE TITLE : DIGITAL ELECTRONICS LAB
COURSE CODE : 3048
COURSE CATEGORY : B
PERIODS/WEEK : 5
PERIODS/SEMESTER : 75/3
CREDITS : 3

List of Experiments

On completion of the course the student will be able:

1. To familiarize with
   (i) TTL and CMOS Logic ICs for AND, OR, NOT, NAND, NOR and XOR by verification of truth tables
   (ii) Universal gates for implementing other logic functions
2. To construct half and full adder circuits.
3. To construct half and full subtractor circuits.
4. To construct binary to gray and gray to binary converter and verify the truth table.
5. To implement combinational logic circuits from Boolean equation.
6. To familiarize 4-bit adder and subtractor using ICs 7483.
7. To construct 4 to 1 MUX and 1 x 4 Demux using NAND Gates.
8. To study the multiplexer IC 74151.
9. To setup RS, D, JK,M/S and T flip-flops using NAND gates and verify their truth tables.
10. To construct asynchronous mod-10 counter using flip-flops.
11. To construct synchronous mod-8 counter using flip-flops.
12. To study 7490 and 7492 counter ICs.
13. To construct 4 bit shift register using flip flops.
14. To study the operation of shift register ICs.
15. To construct Johnson counter.
16. To construct Ring counter.