Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
ESC-311	Digital Electronics Lab	ESC	2	0	0	4	50	0	50

Course Outcomes

At the end of the course the student will be able to:	
CO1	Implement and verify Boolean expressions using Logic Gates.
CO2	Apply Boolean laws and K-map to simplify the digital circuits.
CO3	Design and implement various combinational circuits using digital ICs.
CO4	Design seven segment decoder using Logical Gates.
CO5	Design and implement various sequential circuits using digital ICs.

List of Activities for Digital Electronics Lab

S. No.	Activity Title
1	To study and verify the truth table of logic gates using Logisim and Digital Kit.
2	To study and verify the truth table of logic gates using Breadboard.
3	Simulation of basic gates using Universal Gates.
4	Verify the equivalence of various Boolean expressions using Logisim and Digital Kit.
5	Verification of truth tables of ADDER and Subtractor.
6	To verify the truth table of MUX and DEMUX using NAND.
7	Verification of truth tables of BCD-7 Segment Display.
8	Truth table verification of Flip-Flops.
9	Design of Ring counter/ Johnson counter, Asynchronous Counter and Synchronous Counter.
10	To verify the truth table of one bit comparators using logic gates.
11	**Mini Project 1:** Digital stopwatch.
12	**Mini Project 2:** Water level controller.
13	**Mini Project 3:** 3 to 8 decoder along with seven segment LEDs.
14	**Mini Project 4:** Digital clock and timer circuit.