Semester II
Minor
Practical II
ELE-206-VSC :(Based on ELE-204-MN)

Basics of Digital Electronics Lab-II

Course Objectives: Student should be able to...

1. Learn Basic Logic gates
2. Study of universal logic gates.
3. Know about Multiplexer circuit.
4. Understand the Encoder and Decoder circuit.

(Total Credits 2)	Semester II Practical II Basics of Digital Electronics Lab-II		No. of Lectures (60 hr.)
	Group A		
	1	Study of Basic Logic gates. (7408,7432,7402)	4
	2	Study of Derived Logic gates. (7404,7486)	4
	3	Study of universal logic gates using NAND Gate.	4
	4	Study of universal logic gates using NOR Gate .	4
	5	Study of Demorgan's Theorem-I using gates.	4
	6	Study of Demorgan's Theorem-II using gates.	4
	7	Study of Half adder circuits	4
	8	Study of Full adder circuits	4
	Group B		
	1	Study of 4 to 1 Multiplexer .	4
	2	Study of 8 to 1 Multiplexer .	4
	3	Study of 1 to 4 De-Multiplexer .	4
	4	Study of 1 to 8 De-Multiplexer ..	4
	5	Study of Encoder	4
	6	Study of BCD to 7 Segment Decoder	4
	7	Study of Internet	4
	8	Study of Email	4

Course Outcomes: The students will be able to...

1 Verify Basic Logic gates circuit.

2 Verify De-Morgan's Theorem.

3 Analyze different Multiplexer and De-Multiplexer.

4 Utilize Encoding and Decoding Techniques

Reference Books:

1. Robert Boylestad and Louis Nashelsky,Electronic Devices and Circuit Theory, PHI,9th Edition, (2013)
2. L. Schilling and C. Belove, Electronic Circuits: Discrete and Integrated, Tata McGraw Hill,(2002).
3. Donald A. Neamen, Electronic Circuit Analysis and Design, Tata McGraw Hill,3rdEdition, (2002)
4. J. Millman and C. C. Halkias, Integrated Electronics, Tata McGraw Hill, (2001)
5. R. C. Jaegar and T. N. Blalock, Microelectronic Circuit Design, Tata McGraw Hill4th Edition, (2010)
6. J. J. Cathey, 2000 Solved Problems in Electronics, Schaum's outline Series, TataMcGraw Hill, (1991)