



Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1		1- Numbers SYSTEMS decimal Number Binary Number Octal Number Hexadecimal Number		
2		2- Conversions between system 1-2-1 decimal to Binary Conversion 1-2-2 Binary to decimal Conversion 1-2-3 decimal to Octal Conversion 1-2-4 Octal to decimal Conversion 1-2-5 decimal to Hexadecimal Conversion		
3		1-2-6 Hexadecimal to decimal Conversion 1-2-7 Binary to Octal Conversion 1-2-8 Octal d to Binary Conversion 1-2-9 Binary to Hexadecimal Conversion 1-2-10 Hexadecimal to Binary Conversion 1-2-11 Octal d to Hexadecimal Conversion 1-2-12 Hexadecimal to Octal Conversion		
4		1-3 Arithmetic Operations 1-3- 1 Addition Addition in Binary Addition in Octal Addition in Hexadecimal		

5		1-3-2 Complements 1's Complements In Binary 2's Complements In Binary 1's and 2's Complements in decimal 1's and 2's Complements in Octal 1's and 2's Complements in Hexadecimal		
6		1-3-3 Subtraction in Binary 1-3-4 Multiplication in Binary 1-3-4 Division in Binary		
7		Signed Number 2-1 Binary coded decimal(BCD) 2-2 Excess 3 2-3 The Gray code 2-4 parity binary number 2-4-1 odd-parity 2-4-2 even-parity		
8		3 Boolean Algebra 3-1 Boolean Operations 3-2 Rules and laws of Boolean algebra 3-3 Standard Representation for Logical 3-3-1 The SOP andThe POS		
9		3-4 The Karnaugh Map 3-4-1 Two –variable The Karnaugh Map 3-4-2 Three –variable The Karnaugh Map 3-4-3 four –variable The Karnaugh Map 3-4-4simplification Karnaugh Map 3-4-5don't care condition 3-5 Design Examples		
10		3-5-1 Half-adder 3-5-2 Full adder 3-5-3 Half subtractor 3-5-4 Full Subtractor 3-5-5 BCD TO 7_ SEGMENT		

11		DECODER 3-5-6 Convert cray to binary 3-5-7 Convert binary to cray 3-5-8 Parallel adder circuit		
Half-year Break				
17		4 Flip-Flops 4-1 Flip-Flops R-S 4-2 Flip-Flops R-S latch 4-3 D-type flip-flop 4-4 J-k – Flip Flop 4-5 TOGGLE FF(T-FF)		
18		5 Encoder and Decoder		
19		6 Multiplexers and their use in combinational logic design		
20		7 Read Only Memory (ROM)		
21		8 Counters 8-1 Parallel counter 8-2 Other counter		
22		9 Shift Registers 9-1 Introduction 9-2 Serial Shift Registers 9-3 Parallel Shift Registers		

Instructor Signature:

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