3rd Sem ETC

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)

STUDENT'S ATTENDANCE REGISTER

Time / Day	9:05 – 9:55	9:55 – 10:45	10:45 – 11:35	11:35 – 12:25	12:25 – 1:15
Mon			✓		
Tue	✓				
Fri					✓
Sat	✓				

Year/ Session	2nd yeen, 2021-22
Semester & Branch	3rd Sem & E&TC
Subject with Code	Digital Electronics & Th-3
Name of the Faculty Member	Manasi Padhy

B.I.E.T.
SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Unit-1 Basics of Digital Electronics			
1.1 Number System - Binary, octal Decimal, Hexadecimal - Conversion from one system to another no. system.	16/9/22 19/9/22	Upadhy	
1.2 Arithmetic operation - Addition Subtraction, multiplication, Division, 1's & 2's complement of binary nos. & subtraction using complements method.	23/9/22 24/9/22	Upadhy	Upadhy 27/9/22
1.3 Digital codes & its application & distinguish bet^n weighted & non-weighted code, Binary codes, excess-3 & Gray code.	26/9/22	Upadhy	
1.4 Logic gates: AND, OR, NOT, NAND, NOR, Exclusive-OR	27/9/22	Upadhy	Upadhy 12/10/22

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Exclusive - NOR - Symbol, function, expression, truth table & timing diagram.	30/9/22		
1.5 Universal gates & its Realisation 1.6 Boolean algebra, Boolean expression : SOP & POS Forms.	1/10/22 12/10/22	Updated	
1.7 Represent logic Expression : SOP & POS Forms.	14/10/22	Updated	Practiced 12/10/22
1.8 Karnaugh map - (3 & 4 variables) & minimization of logical expression don't care conditions.	15/10/22 17/10/22	Updated	

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Unit-2 Combinational Logic Circuits			
2.1 Half adder, full adder, Half Subtractor, full subtractor, Serial & parallel Binary 4bit adder.	18/10/22 21/10/22 22/10/22 25/10/22	Updated	
2.2 Multiplexer (4:1), De-multiplexer (1:4), Decoder, Encoder, Digital Comparator (3bit)	28/10/22 29/10/22 31/10/22	Updated	Updated 12/9/22
2.3 Seven segment Decoder (Defination, relevance, gate level of circuit logic unit/circuit truth table, Applications of above).	1/11/22 4/11/22	Updated	Updated 12/9

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Unit-3 Sequential Logic Circuits			
3.1 principle of flip-flops operation its types. :	5/11/22 7/11/22	Upadhy	
3.2 SR flip-flop using NAND, NOR latch (un locked)	11/11/22 12/11/22 14/11/22	Upadhy	
3.3 clocked SR, D, JK, T, JK Master slave flip-flops symbol, logic circuit, truth table, & application.	15/11/22 15/11/22 19/11/22 21/11/22	Upadhy	
3.4 Concept of Racing & how it can be avoided.		Upadhy	

4.1
4.2
4.3
4.4
4.5

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Unit-4			
Registers, Memories & PLD			
4.1 Shift registers – serial-in-serial out, serial-in-parallel-out, parallel-in serial out & parallel-in-parallel-out	22/11/22 23/11/22 26/11/22	Upadhy	
4.2 Universal shift registers Applications.	28/11/22	Upadhy	Upadhy 12/9/22
4.3 Types of counter & application	29/11/22	Upadhy	
4.4 Binary counter, Asynchronous ripple counter (up & down) Decade counter, Synchronous Counter, Ring counter.	2/12/22 3/12/22	Upadhy	
4.5 Concept of memories – RAM, ROM, static RAM, dynamic RAM PS RAM	5/12/22 6/12/22	Upadhy	Upadhy 12/9/22

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
4.6 Basic concept of PLD & application.	9/12/22	Upadhy	
Unit-5			
A/D & D/A Converters			
5.1 Necessity of A/D & D/A converters.	10/12/22	Upadhy	
5.2 D/A conversion using weighted resistors methods.	12/12/22	Upadhy	
5.3 D/A Conversion using R-2R ladder.			
5.4 A/D Conversion using counter method.	13/12/22	Upadhy	
5.5 A/D conversion using successive approximate method.			

6.1

6.2

6.

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TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
Unit-6 Logic FAMILIES			
6.1 Various logic families & categories according to the IC fabrication process.	16/12/22	Upadhy	
6.2 Characteristics of digital ICs – propagation Delay, fan-out, fan-in, power Dissipation, Noise margin, power supply requirement, & speed with reference to logic families.	17/12/22 20/12/22	Upadhy	12/9/22
6.3 Features, circuit operation, & various application of TTL (NAND), CMOS (NAND & NOR)	22/12/22	Upadhy	Upadhy 12/

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12.9.22