

# PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



## PROGRESS REGISTER

Session-2022-2023

Discipline: Computer Science & Engg.

Semester: 3rd

Subject: DIGITAL ELECTRONICS

Name of the Teaching Faculty:

Niranjan Behera






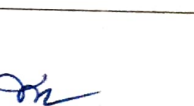
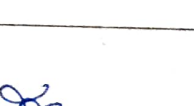
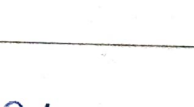
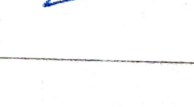
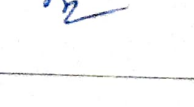
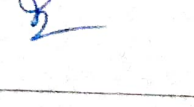
Subject: DIGITAL ELECTRONICS No. of Days/per week class allotted 04

Semester From Date : 14/09/2022 To Date : 21/10/2023 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15/09/2022	Basic of digital Number system Decimal number	Basic of digital Number system Decimal number	Number System	SR
16/09/2022	Binary, octal and Hexadecimal number system	Binary, octal and Hexadecimal number system	Binary, octal and Hexadecimal number system	SR
19/09/2022	Conversion from one system to other system	Conversion from one system to other system	Conversion of number system	SR
22/09/2022	Arithmetical operation of Binary 1's and 2's	Arithmetical operation of Binary 1's and 2's	Addition and subtraction of Binary 1's and 2's	SR
23/09/2022	Digital codes XS-3 code and Gray code	Digital codes XS-3 code and Gray code	Digital codes	SR
24/09/2022	Logic gates	Logic gates	Primary logic gates OR, AND and NOT Gate	SR
26/09/2022	Universal logic gate	Universal logic gate	Universal logic gate	SR
29/09/2022	Boolean Algebra	Boolean Algebra	Boolean Algebra and expression	SR
30/09/2022	Represent of Logic Expression SOP and POS forms	Represent of Logic Expression SOP and POS forms	Logic Expression SOP and POS forms	SR
01/10/2022	K-map (3 & 4) variable) minimization of Logic Expression.	K-map (3 & 4) variable minimization of Logic Expression	K-map (3 & 4) variable minimization of Logic Expression	SR
10/10/2022	Don't care & Practice of K-map	Don't care & Practice of K-map	Don't care & Practice of K-map	SR




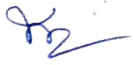







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Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
13/10/2022	Half adder and Full adder	Half adder and Full adder	Half adder and Full adder	
14/10/2022	Half subtractor and full subtractor	Half subtractor and full subtractor	Half subtractor and full subtractor using 2 HA	
15/10/2022	Serial and Parallel 4 bits adder	Serial and Parallel 4 bits adder	Serial and Parallel 4 bits adders	
17/10/2022	Multi Plexer (4:1)	Multi Plexer (4:1)	Multi Plexer (4:1)	
20/10/2022	De multiplexer (DMUX) 4:1:4	DMUX (1:4)	Design of DMUX (1:4)	
21/10/2022	Decoder	Decoder	Decoder	
27/10/2022	Encoder	Encoder	Encoder	
28/10/2022	Digital Comparator (3 bits)	Digital Comparator (3 bits)	Digital Comparator (3 bits)	
29/10/2022	Seven Segment Decoder	Seven Segment Decoder	Seven Segment Decoder	
31/10/2022	Serial and Parallel adder	Serial and Parallel adder	Serial and Parallel adder	
03/11/2022	Revision of Unit 1 and 2	Revision of Unit 1 and 2	Revision of Unit 1 and 2	












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Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
04/11/2022	Principle of FLIP-FLOP	Principle of FLIP-FLOP	Principle of FLIP-FLOP	
05/11/2022	SR FLIP-FLOP using NAND or NOR gate	SR F/F using NAND and NOR gate	SR F/F	
06/11/2022	NOR Latch unlocked	NOR Latch unlocked	Discussion about of Latch and Clocked and unlocked NOR	
07/11/2022	Clocked SR F/F	Clocked SR F/F	Clocked SR F/F	
08/11/2022	D Flip-Flop	D Flip-Flop	D Flip-Flop	
09/11/2022	J-K F/F	J-K F/F	J-K F/F	
11/11/2022	J-K Master slave F/F	J-K Master slave F/F	J-K Master slave F/F	
12/11/2022	T F/F	T F/F	T F/F	
14/11/2022	Conversion of one F/F to other F/F	Conversion of one F/F to other F/F	Conversion of one F/F to other F/F	
17/11/2022	Concept of RACING & how it can avoided	Concept of RACING & how it can avoided	Concept of RACING & how it can avoided	
18/11/2022	Revision of unit - 3	Revision of unit - 3	Revision of unit - 3	

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19/11/2022	Shift Register SISO, SIPO	Shift Register SISO, SIPO	Shift Register SISO SIPO	
21/11/2022	PISO and PIPO	PISO and PIPO	PISO and PIPO	
24/11/2022	Universal Shift Registers and application	Universal Shift Register and application	Universal Shift Register and application	
25/11/2022	Counter	Counter	Counter	
26/11/2022	Binary Counter	Binary Counter	Binary Counter	
28/11/2022	Decade Counter	Decade Counter	Decade Counter	
01/12/2022	Synchronous Counter	Synchronous Counter	Synchronous Counter	
02/12/2022	Ring counter concept of memories RAM and ROM	Ring counter concept memories of RAM and ROM	Ring Counter concept to memories of RAM and ROM	
03/12/2022	Necessity of A/D and D/A converter	Necessity of A/D and D/A converter	Necessity of A/D and D/A converter	
05/12/2022	D/A conversion using weighted resistor method	D/A conversion using weighted resistor method	D/A conversion using weight resistor method	
08/12/2022	D/A conversion using R-2R ladder (weighted resistor method)	D/A conversion using R-2R ladder (weight resistor method)	D/A conversion using R-2R ladder (weighted resistor method)	

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Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
09/12/2022	Revision of Previous of unit-1 ans	Revision of Previous of unit 1 ans	Revision of Previous unit 1 ans	
10/12/2022	A/D Converter using counter method	A/D Converter using A/D counter method	A/D Converter using A/D converter method	
15/12/2022	A/D Converter using counter method	A/D Converter using counter method	A/D Converter using counter method	
16/12/2022	Logic families	Logic families	Logic families	
17/12/2022	Logic families	Logic families	Logic families	
19/12/2022	Logic families categories to the fabrication process	Logic families categories to the fabrication	Logic families categories to the fabrication	
22/12/2022	Logic families categories to the fabrication process	Logic families categories to the fabrication process	Logic families categories fabrication process	
23/12/2022	Characteristics of digital ICs Propagation delay	Characteristics of digital ICs Propagation delay	Characteristics of digital ICs Propagation delay	
24/12/2022	Fan-in	Fan-in	Fan-in	
26/12/2022	Fan-out	Fan-out	Fan-out	
29/12/2022	Power dissipation Noise figure	Power dissipation Noise figure	Power dissipation Noise figure	

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30/12/2022	Power dissipation Noise figure	Power dissipation Noise figure	Power dissipation Noise figure	
31/12/2022	Power Supply requirements & Speed with reference to logic family.	Power Supply requirement and Speed with reference.	Power Supply requirement & Speed with reference to logic family.	
02/01/2023	Power Supply requirements & Speed with reference to logic family.	Power Supply requirements & Speed with reference to.	Power Supply requirements & Speed with reference to logic family.	
05/01/2023	Features of TTL NAND CMOS (NAND & NOR)	Features of TTL NAND CMOS (NAND & NOR)	Features of TTL NAND CMOS (NAND & NOR)	
08/01/2023	Revision of chapter I	Revision of chapter - I	Revision of chapter I	
09/01/2023	Revision of chapter - II	Revision of chapter (II)	Revision of chapter (II)	
09/01/2023	Revision of chapters - III & IV	Revision of chapters III & IV	Revision of chapters III & IV	
12/01/2023	Revision of chapter - V & VI	Revision of chapters V & VI	Revision of chapters V & VI	
13/01/2023	Discussion of Previous year question	Discussion of Previous year question	Discussion of Previous year question	
14/01/2023	Model question discussion	Model question discussion	Model question discussion	

Niranjana Behera   
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