LESSON PLAN FOR Digital Electronics & Microprocessor Lab(Pr3)		
Discipline: Electrical Engineering	**Semester:** 5th	**Name of the Teaching Faculty:** Ms. Deepika Sarkar (Lect. In ETC)
Subject: Digital Electronics & Microprocessor Lab	**No. of days per week class allotted:** 3	**Semester From Date :** 15.09.2022 **to Date:** 22.12.2022 **No. of Weeks:** 13 **Session:** 2022-23
Week	**Class Day**	**Theory/Practical Topic**
1st	1st	1. Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.
2nd	2nd	2. Implement various gates by using universal properties of NAND & NOR gates and verify truth table.
3rd	3rd	3. Implement half adder and Full adder using logic gates. 4. Implement half subtractor and Full subtractor using logic gates.
4th	4th	5. Implement a 4-bit Binary to Gray code converter. 6. Implement a Single bit digital comparator.
5th	5th	7. Study Multiplexer and demultiplexer.
6th	6th	8. Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop
7th	7th	9. Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.
8th	8th	10. Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.
9th	9th	11. Implement Mode-10 asynchronous counters. 12. Study shift registers.
10th	10th	13. a. 1'S Complement. b. 2'S Complement. 14. a. Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number
11th	11th	15. a. Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number
12th	12th	16. a. Compare between two numbers. b. Find the largest in an Array 17. Block Transfer.
13th	13th	18. Traffic light control using 8255. 19. Generation of square wave using 8255

14/09/22
HOD Electrical Engg.

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Academic Co-ordinator

14/9/22
Principal
Govt. polytechnic Nabarangpur