SUNDARGARH ENGINEERING SCHOOL, KIREI		
LESSON PLAN		
Subject : **POWER ELECTRONICS & PLC LAB**		
Discipline : **Electrical Engineering**		
Faculty : **Shyam Sundar Padhi**		
Semester : **5th**		

Week	Week Day	Practical
1st	1st	**Practical # Power Electronics** 1. Study of switching characteristics of a power transistor
	2nd	1. Study of switching characteristics of a power transistor
2nd	1st	2. Study of V-I characteristics of SCR.
	2nd	2. Study of V-I characteristics of SCR.
3rd	1st	3. Study of V-I characteristics of TRIAC.
	2nd	3. Study of V-I characteristics of TRIAC.
4th	1st	4. Study of V-I characteristics of DIAC.
	2nd	4. Study of V-I characteristics of DIAC.
5th	1st	5. Study of drive circuit for SCR & TRIAC using DIAC.
	2nd	5. Study of drive circuit for SCR & TRIAC using DIAC.
6th	1st	6. Study of drive circuit for SCR & TRIAC using UJT.

	2nd	6. Study of drive circuit for SCR & TRIAC using UJT.
7th	1st	7. To study phase controlled bridge rectifier using resistive load.
	2nd	7. To study phase controlled bridge rectifier using resistive load.
8th	1st	8. To study series Inverter.
	2nd	8. To study series Inverter.
9th	1st	9. Study of voltage source Inverter.
	2nd	9. Study of voltage source Inverter.
10th	1st	10. To perform the speed control of DC motor using Chopper.
	2nd	10. To perform the speed control of DC motor using Chopper.
11th	1st	11. To study single-phase Cyclo-converter
	2nd	11. To study single-phase Cyclo-converter
12th	1st	**Practical #) PLC Programming** Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O

	2nd	Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O
13th	1st	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters
	2nd	Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters
14th	1st	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter
	2nd	Execute Ladder diagrams with model applications (i) Stair case lighting (ii) Traffic light controller

HOD, Electrical Dept.   Principal
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