DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY	
ELECTRICAL	5TH	MISS.SINDHUJA PANIGRAHI(PTGF)	
SUBJECT: Power Electronics & PLC Lab	NO. OF DAYS PER WEEK CLASS ALLOTED : 03	SEMESTER FROM 14/07/2025 TO 15/11/25	
		NO. OF WEEKS : 15 NOS.	

WEEKS	CLASS DAYS	THEORY TOPICS
1ST WEEK	1ST	Study of V-I characteristics of SCR
	2ND	Study of V-I characteristics of SCR
	3RD	Study of V-I characteristics of SCR
2ND WEEK	1ST	To study phase controlled bridge rectifier using resistive load.
	2ND	To study phase controlled bridge rectifier using resistive load.
	3RD	To study phase controlled bridge rectifier using resistive load.
3RD WEEK	1ST	To study single-phase Cyclo-converter
	2ND	To study single-phase Cyclo-converter
	3RD	To study single-phase Cyclo-converter
4TH WEEK	1ST	To perform the speed control of DC motor using Chopper.
	2ND	To perform the speed control of DC motor using Chopper.
	3RD	To perform the speed control of DC motor using Chopper.
5TH WEEK	1ST	To study series Inverter.
	2ND	To study series Inverter.
	3RD	To study series Inverter.
6TH WEEK	1ST	Study of drive circuit for SCR & TRIAC using DIAC.
	2ND	Study of drive circuit for SCR & TRIAC using DIAC.
	3RD	Study of drive circuit for SCR & TRIAC using DIAC.
7TH WEEK	1ST	Introduction/Familiarization PLC Trainer & its Installation with PC
	2ND	Learn the basics and hardware components of PLC
	3RD	Understand configuration of PLC system,
8TH WEEK	1ST	Study various building blocks of PLC
	2ND	Determine the No. of digital I/O & Analog I/O
	3RD	Demonstrate PLC and Ladder diagram-Preparation downloading and running
9TH WEEK	1ST	Execute Ladder diagrams for different Logical Gates
	2ND	Execute Ladder diagrams for different Logical Gates
	3RD	Execute Ladder diagrams for different Logical Gates
10TH WEEK	1ST	Execute Ladder diagrams for different Logical Gates
	2ND	Execute Ladder diagrams for different Logical Gates
	3RD	Execute Ladder diagrams for different Logical Gates
11TH WEEK	1ST	Execute Ladder diagrams using timers
	2ND	Execute Ladder diagrams using timers
	3RD	Execute Ladder diagrams using timers
12TH WEEK	1ST	Execute Ladder diagrams using counters
	2ND	Execute Ladder diagrams using counters
	3RD	Execute Ladder diagrams using counters
13TH WEEK	1ST	Execute the Ladder Diagrams with model applications with DOL starter
	2ND	Execute the Ladder Diagrams with model applications with DOL starter

	3RD	Execute the Ladder Diagrams with model applications with DOL starter
14TH WEEK	1ST	Execute Ladder diagrams with model applications (i) Stair case lighting
	2ND	Execute Ladder diagrams with model applications (i) Stair case lighting
	3RD	Execute Ladder diagrams with model applications (i) Stair case lighting
15TH WEEK	1ST	Repetion of Missing experiments
	2ND	Repetion of Missing experiments
	3RD	Repetion of Missing experiments

14/07/25

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