Pr.2 POWER ELECTRONICS & PLC LAB

Name of the Course: Diploma in Electrical Engineering				
Name of the Faculty: S Bichiballi				
Course code:	Pr.2		Course code:	5th
Total Period:	45		Total Period:	3 hrs
Lab. periods:	3 P / week		Lab. periods:	25
Maximum marks:	75		Maximum marks:	50
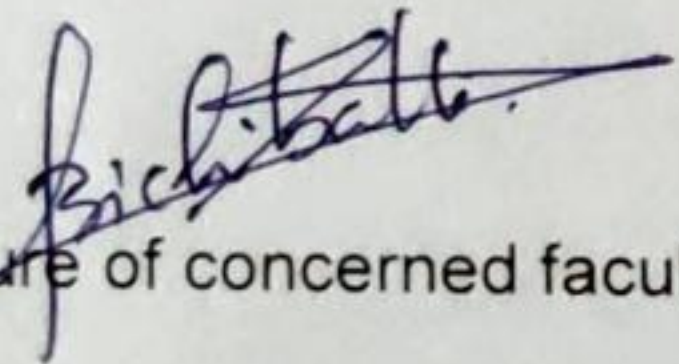
LESSON PLAN
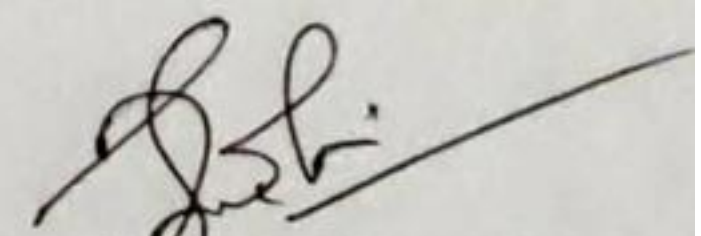
Week	Day	Experiment
1st	1st	
	2nd	Study of switching characteristics of a power transistor.
	3rd	
2nd	1st	
	2nd	Study of V-I characteristics of SCR.
	3rd	
3rd	1st	
	2nd	Study of V-I characteristics of TRIAC.
	3rd	
4th	1st	
	2nd	Study of V-I characteristics of DIAC.
	3rd	
5th	1st	
	2nd	Study of drive circuit for SCR & TRIAC using DIAC.
	3rd	
6th	1st	
	2nd	Study of drive circuit for SCR & TRIAC using UJT.
	3rd	
7th	1st	
	2nd	To study phase controlled bridge rectifier using resistive load.
	3rd	
8th	1st	
	2nd	To study series Inverter.
	3rd	
9th	1st	
	2nd	Study of voltage source Inverter.
	3rd	
10th	1st	
	2nd	To perform the speed control of DC motor using Chopper.
	3rd	

11th	1st	
	2nd	To study single-phase Cyclo-converter
	3rd	
12th	1st	Introduction/Familiarization PLC Trainer & its Installation with PC
	2nd	I. Learn the basics and hardware components of PLC
	3rd	II. Understand configuration of PLC system
		III. Study various building blocks of PLC
		IV. Determine the No. of digital I/O & Analog I/O
13th	1st	Execute the different Ladder Diagrams
	2nd	I. Demonstrate PLC and Ladder diagram-Preparation downloading and running
	3rd	II. Execute Ladder diagrams for different Logical Gates
		III. Execute Ladder diagrams using timers & counters
14th	1st	Execute the Ladder Diagrams with model applications
	2nd	I. DOL starter
	3rd	II. Star- Delta starter
15th	1st	Execute Ladder diagrams with model applications
	2nd	I. Stair case lighting
	3rd	II. Traffic light controller

Signature of concerned faculty

H.O.D Electrical