

LESSON PLAN



SUB:-POWER ELECTRONICS & PLC LAB

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 5TH

NAME OF FACULTY: - SUSHANTA KUMAR NAYAK



**GOVERNMENT POLYTECHNIC,
BHADRAK**

SESSION:2024-25

Hod Electrical
**HOD (ELECT.)
G.P.BHADRAK**

Academic Co-ordinator
Academic Co-ordinator

Principal
Govt. Polytechnic Bhadrak
**Principal
Govt. Polytechnic
Bhadrak**

DISCIPLINE ELECTRICAL ENGG.	SEMESTER 5 TH	NAME OF THE TEACHING FACULTY SUSHANTA KUMAR NAYAK(Lect. in Elect. Engg.)
SUBJECT POWER ELECTRONICS & PLC LAB	NO. OF DAYS/WEEK CLASS ALLOTTED – 45 (3P/week)	SEMESTER FROM DATE 01.07.2024 to 08.11.2024
WEEK	CLASS DAY	PRACTICAL TOPICS
1st	01	Study of switching characteristics of a power transistor
	02	Study of switching characteristics of a power transistor
2nd	01	Study of V-I characteristics of SCR
	02	Study of V-I characteristics of SCR
3rd	01	Study of V-I characteristics of TRIAC
	02	Study of V-I characteristics of TRIAC
4th	01	Study of V-I characteristics of DIAC
	02	Study of V-I characteristics of DIAC
5TH	01	Study of drive circuit for SCR & TRIAC using DIAC.
	02	Study of drive circuit for SCR & TRIAC using DIAC
6TH	01	To study series Inverter.
	02	To study series Inverter.
7 TH	01	Study of voltage source Inverter.
	02	Study of voltage source Inverter.
8 TH	01	To perform the speed control of DC motor using Chopper.
	02	To perform the speed control of DC motor using Chopper.
9 TH	01	To study single-phase Cyclo-converter

	02	To study single-phase Cyclo-converter
10 TH	01	Introduction/Familiarization PLC Trainer & its Installation with PC
	02	Introduction/Familiarization PLC Trainer & its Installation with PC
11 TH	01	Learn the basics and hardware components of PLC Understand configuration of PLC system
	02	Learn the basics and hardware components of PLC Understand configuration of PLC system
12 TH	01	Study various building blocks of PLC Determine the No. of digital I/O & Analog I/O
	02	Study various building blocks of PLC Determine the No. of digital I/O & Analog I/O
13 TH	01	Execute the different Ladder Diagrams
	02	Execute the different Ladder Diagrams
14 TH	01	Demonstrate PLC and Ladder diagram-Preparation downloading and running Execute Ladder diagrams for different Logical Gates
	02	Demonstrate PLC and Ladder diagram-Preparation downloading and running Execute Ladder diagrams for different Logical Gates
15 TH	01	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter
	02	Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter

SIGNATURE OF THE FACULTY

Lect.in Elect.Engg.
Govt.Poly.Bhadrak