

GOVT. POLYTECHNIC KENDRAPARA
LESSON PLAN
Session(2024-2025)

Discipline: Electronics & Tele comm. Engg.	Semester: 5th, Winter/2024	Name of the Teaching Faculty: RABINDRA KUMAR SATAPATTHY(GUEST FACULTY)
Subject: Power Electronics & PLC, Theory-5	No. of Days/Week: 04	Start Date: 01/07/2024 End Date: 08/11/2024
Week	Class Day	Theory Topics
1st week 1st july to 6th july	1st	Construction, operation & application of Power Diode, V-I Characteristics of Power Diode.
	2nd	Construction, Operation, layer diagram of SCR
	3rd	Two transistor analogy of SCR.
	4th	Static V-I Characteristic of SCR, Applications of SCR.
2nd week 08th july to 13th july	1st	Dynamics characteristics of SCR.
	2nd	Construction and principle of operation, Application and characteristics of DIAC.
	3rd	Construction and principle of operation ,Application and characteristics of TRIAC
	4th	Construction, principle of operation and characteristics, Applications of Power MOSFET.
3rd week 15th july to 20th july	1st	Construction & Principle of operation of NPN Power Transistors.
	2nd	Construction ,principle of operation and characteristics curve, application of GTO
	3rd	Construction ,principle of operation and characteristics curve, application of IGBT
	4th	Different methods of Turn on of SCR
4th week 22nd july to 27th july	1st	R &RC firing circuit of SCR
	2nd	UJT firing circuit of SCR.
	3rd	Synchronous triggering of SCR
	4th	Doubt Clearing class
5th week 29july to 3rd august	1st	Assignment Evaluation & Class Test
	2nd	QUIZ Test-1
	3rd	Different methods of Commutation of SCR
	4th	Line commutation
1st week 5th august to 10th	1st	Auxiliary voltage commutation Resonant commutation
	2nd	Over voltage and over current protection of SCR

	3rd	Special control system, Direct digital control system.
	4th	Assignment Evaluation & Class Test
7th to 8th	1st	Doubt Clearing class
	2nd	Discussion of Previous year questions
	3rd	Discussion of Previous year questions
	4th	Discussion of Previous year questions

8/12