

LESSON PLAN-2022-2023
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester- 5TH	Name of teaching faculty-SONALI SUSMITA TRIPATHY
SUBJECT- POWER ELECTRONICS AND PLC	No of days/ per week class allotted- 5	SEM From date- 15.09.2022 No of weeks-16
Week	Class day	Theory Topics
1st	16.9.2022	construction,operation & VI characteristics of power diode, SCR
	19.09.2022	construction,operation & VI characteristics of DIAC
2nd	20.09.2022	construction,operation & VI characteristics of TRIAC
	21.09.2022	construction,operation & VI characteristics of Power MOSFET
	22.09.22	construction,operation & VI characteristics of GTO
	23.09.2022	construction,operation & VI characteristics of IGBT
3rd	24.09.2022	Two transistor theory of SCR
	26.09.2022	Switching characteristics of SCR
	27.09.2022	Gate characteristics of SCR
4th	28.09.2022	TURN ON METHODS OF SCR
	29.09.2022	turn off method of scr
	30.09.2022	DO
	10.10.2022	Voltage current rating
	11.10.2022	protection of SCR
	12.10.2022	FIRING CKT
1st	13.10.2022	DO
2nd	14.10.2022	SNUBBER CIRCUIT
	15.10.2022	Class test
	17.10.2022	controlled rectifire technique
	18.10.2022	-DO-
3rd	19.10.2022	single phase half wave controlled converter with R load and RL load
	20.10.2022	-DO-
	21.10.2022	free wheeling diode,single phase fully controlled converter with R and RL load
	22.10.2022	three phase half wave controlled converter with R load
4th	26.10.2022	three phase fully controlled converter with R load
	27.10.2022	working of single phase AC regulator
	28.10.2022	Principle of step of step down chopper
5th	29.10.2022	IST INTERNAL
	31.10.2022	IST INTERNAL
	01.11.2022	IST INTERNAL

1st	02.11.2022	control mode of chopper
	03.11.2022	operation of chopper in all 4 quadrant
	04.11.2022	DO
	05.11.2022	Classify inverters
2nd	07.11.2022	working of series inverter
	10.11.2022	working of parallel inverter
	11.11.2022	1ST INTERNAL
3rd	12.11.2022	1ST INTERNAL
	15.11.2022	1ST INTERNAL
	16.11.2022	working of single phase bridge inverter
	17.11.2022	explain basic principle of cyclo converter
4th	18.11.2022	working of step up step down cyclo converter
	19.11.2022	DO
	21.11.2022	Application of cyclo converter
	22.11.2022	Class test
	23.11.2022	List application of power electronics circuit
1st	24.11.2022	list the factor affecting the speed of DC motor
	25.11.2022	speed control of DC motor using converter
	26.11.2022	speed control of DC motor using chopper
2nd	28.11.2022	List the factor affecting the speed of AC motor
	29.11.2022	Speed control of induction motor by using AC voltage regulator
	30.11.2022	Speed control of induction motor by using converter and inverter
	01.12.2022	class test
3rd	02.12.2022	working of UPS with block diagram
	03.12.2022	Battery charger circuit using SCR
	05.12.2022	Working and application of SMPS
	06.12.2022	Introduction to PLC
4th	07.12.2022	Advantages and Application of PLC
	08.12.2022	Different parts of PLC with block diagram and its working
	09.12.2022	ladder diagram
	10.12.2022	Description of contacts and coils
5th	12.12.2022	PLC instruction set
	13.12.2022	Ladder diagram for AND OR and NOT gate
	14.12.2022	Ladder diagram for combination circuit using NAND NOR AND OR gate
	15.12.2022	Timers T-ON T-OFF RTO
	17.12.2022	Counter CTU,CTD
	19.12.2022	LADDER DIAGRAM USING TIMER AND COUNTER
	20.12.2022	ladder diagram for star delta and DOL starter, staircase lighting, traffic light control, temperature control
	21.12.2022	basics DCS and SCADA system

	22.12.2022	Computer cntrol Data Acquisition, Direct digital control system
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