




LESSON PLAN-2023(WINTER 2023)
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR


Discipline- ELECTRICAL	Semester- 5TH	Name of teaching faculty- KAILASH SENAPATI	
SUBJECT- POWER ELECTRONICS AND PLC	No of days/ per week class allotted- 5	SEM From date- 01/08/2023 No of weeks- 17	
Week	Class day	Theory Topics	
1ST	01.08.2023	construction,operation& VI characteristics of power diode	
	02.08.2023	construction,operation& VI characteristics of SCR	
	03.08.2023	construction,operation& VI characteristics of DIAC	
	04.08.2023	construction,operation& VI characteristics of TRIAC	
2ND	07.08.2023	construction,operation& VI characteristics of Power MOSFET	
	08.08.2023	construction,operation& VI characteristics of GTO	
	09.08.2023	construction,operation& VI characteristics of IGBT	
	10.08.2023	Two transistor theory of SCR	
	11.08.2023	Switching characteristics of SCR	
	12.08.2023	Gate characteristics of SCR	
	3RD	14.08.2023	TURN ON METHODS OF SCR
		16.08.2023	turn off method of scr
17.08.2023		DO	
18.08.2023		Voltage current rating	
19.08.2023		protection of SCR	
4TH	21.08.2023	FIRING CKT	
	22.08.2023	DO	
	23.08.2023	SNUBBER CIRCUIT	
	24.08.2023	Class test	
	25.08.2023	controlled rectifire technique	
	26.08.2023	-DO-	
	5TH	28.08.2023	single phase half wave controlled converter with R load and RL load
29.08.2023		-DO-	
30.08.2023		freewheeling diode,single phase fully controlled converter with R and load	
31.08.2023		three phase half wave controlled converter with R load	
01.09.2023		three phase fully controlled converter with R load	
02.09.2023		working of single phase AC regulator	

1ST	04.09.2023	Principle of step of step down chopper
	05.09.2023	control mode of chopper
	06.09.2023	operation of chopper in all 4 quadrant
	07.09.2023	DO
	08.09.2023	DO
	09.09.2023	CLASS TEST
2ND	11.09.2023	Classify inverters
	12.09.2023	working of series inverter
	13.09.2023	working of parallel inverter
	14.09.2023	working of single phase bridge inverter
	15.09.2023	explain basic principle of cyclo converter
	16.09.2023	working of step up step down cyclo converter
3RD	18.09.2023	DO
	20.09.2023	Application of cyclo converter
	21.09.2023	Class test
	22.09.2023	List application of power electronics circuit
	23.09.2023	list the factor affecting the speed of DC motor
	25.09.2023	speed control of DC motor using converter
4TH	26.09.2023	speed control of DC motor using chopper
	27.09.2023	List the factor affecting the speed of AC motor
	28.09.2023	Speed control of induction motor by using AC voltage regulator
	30.09.2023	DO
	03.10.2023	Speed control of induction motor by using converter and inverter
	04.10.2023	DO
1ST	05.10.2023	working of UPS with block diagram
	06.10.2023	Battery charger circuit using SCR
	07.10.2023	Working and application of SMPS
	09.10.2023	CLASS TEST
	10.10.2023	INTERNAL
	11.10.2023	INTERNAL
2ND	12.10.2023	INTERNAL
	13.10.2023	INTERNAL
	14.10.2023	INTERNAL
	16.10.2023	Introduction to PLC
	17.10.2023	Advantages and Application of PLC
	18.10.2023	Different parts of PLC with block diagram and its working
3RD	19.10.2023	ladder diagram
	20.10.2023	Ladder diagram for AND OR and NOT gate
	30.10.2023	Ladder diagram for combination circuit using NAND NOR AND OR gate

	31.10.2023	Timers T-ON T-OFF RTO
1ST	01.11.2023	Counter CTU,CTD
	02.11.2023	LADDER DIAGRAM USING TIMER AND COUNTER
	03.11.2023	ladder diagram for star delta and DOL starter, staircase lighting, traffic light control, temperature control
	04.11.2023	Basics DCS and SCADA system
2ND	06.11.2023	DO
	07.11.2023	Computer control Data Acquisition, Direct digital control system
	08.11.2023	Revision
	09.11.2023	Class Test
	10.11.2023	Chapter 1 Revision
	11.11.2023	DO
3RD	13.11.2023	DO
	14.11.2023	Previous year question discussion
	15.11.2023	Chapter 2 Revision
	16.11.2023	DO
	17.11.2023	DO
	18.11.2023	Previous year question discussion
	20.11.2023	Chapter 3 Revision
	21.11.2023	DO
	22.11.2023	Previous year question discussion
	23.11.2023	Chapter 4 & 5 Revision
	24.11.2023	DO
	25.11.2023	Do
	27.11.2023	Previous year question discussion
	28.11.2023	2 mark & 5 mark selective question Discussion
	29.11.2023	2 mark & 5 mark selective question Discussion
	30.11.2023	2 mark & 5 mark selective question Discussion


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