

**LESSON PLAN (WINTER- 2022)**

Subject- POWER ELECTRONICS & PLC

Semester-5TH

Branch- Electrical Engineering

NAME OF FACULTY-LIPSARANI BAGH

Sl. No.	Date	Chapter	Topic Name	No. of periods		
WEEK NO-1	15-09-2022 to 17-09-2022	Chapter 1 ( power electronics device construction)	1.1.scr,disc,triac,mosfet,igbt,gto	1		
			construction	1		
			Cont....	1		
WEEK NO-2	19-09-2022 to 24-09-2022		1.2. two transistor analogy of scr	1		
			1.3. gate characteristic of scr	1		
			1.4.switching characteristic scr	1		
			1.5. turn on methods of scr	1		
			1.6. turn off methods of scr	1		
			1.7.voltage and current rating of scr	1		
			1.8. protection of scr	1		
WEEK NO-3	26-09-2022 to 01-10-22		1.9. firing ckts	1		
		Cont....	1			
WEEK NO-4	03-10-22 to 08-10-22	Chapter 2 ( converter,ac regulator and hopper )	2.1. rectifiers	1		
			HOLIDAYS			
WEEK NO-5	10-10-22 to 15-10-22		2.2. working of single phase half wave converter	1		
			2.3. freewheeling diode	1		
			2.4. fully controlled converter	1		
			2.5. three phase half wave controlled converter	1		
			2.6. three phase fully controlled converter	1		
			2.7. ac regulator	1		
			2.8. step up and step down chopper	1		
WEEK NO-6	17-10-22 to 22-10-22		Chapter 3 (inverters and cycloconverter)	3.2. working of series inverter	1	
				3.3. working of parallel inverter	1	
WEEK NO-7	24-10-22 to 29-10-22	3.4.working of bridge inverter		1		
		3.5.basic of cycloconverter		1		
		3.6.step up and step down cyclo converter		1		
		3.7. application of cyclo converter		1		
		3.8 step up cyclonoverter working detail		1		
		WEEK NO-8		31-10-22 to 05-11-22	4.1. list of application of power electronics	1
					4.2. factor affecting speed of dc motor	1
4.3. speed control of dc shunt motor using converter	1					
4.4. speed control of shunt motor using chopper	1					
4.5. factor affecting speed of ac motor	1					
WEEK NO-9	07-11-22 to 12-11-22	4.6. speed control of Induction motor using ac regulator	1			
		4.7. speed control using v/f control	1			
		4.8. working of ups, 4.9.battery charging ckt	1			
		4.10.switched mode power supply	1			
WEEK NO-10	14-11-22 to 19-11-22	4.11. Sodium vapor lamps.	1			
		4.12. High pressure mercury vapor lamps.	1			
		4.13. Neon lamps	1			
		4.14. High lumen output & low consumption fluorescent lamps.	1			
WEEK NO-11	22-11-22 to 26-11-22	Chapter 4 ( application of power electronic ckt)	5.1. plc	1		
			5.2. advantages of plc	1		
			5.3. different parts of plc	1		
			5.4. application of plc	1		
			5.5. ladder diagram	1		

WEEK NO-12	28-11-22 to 03-12-22
WEEK NO-13	05-12-22 to 10-11-22
WEEK NO-14	12-12-22 to 17-12-22
WEEK NO-15	19-12-22 to 22-12-22

Chapter 5(PLC)

5.6 no,nc switch	1
5.7 ladder diagram AND gate,OR gate,NOT gate	1
5.8 ladder for NAND,NOR,EX-OR	1
5.9 Timers	1
5.10 Counters	1
5.11 ladder diagram using timer and counter	1
5.12 plc instruction set	1
5.13 dol starter	1
5.13.1 star delta starter	1
5.13.2 stare case lightning	1
5.13.3 traffic light control.	1
5.13.4 temperature controller	1
5.14 special controller 5.14.1.DCS	1
5.14.2.SCADA SYSTEM 5.15.computer control	1
5.15.1.data acquisition	1
5.15.2..direct digital control system	1
5.15.3.basic diagram of digital control	1
REVISION	1

*[Handwritten Signature]*  
15/09/22