

Lesson Plan

Name of Faculty : Ms. Sandeep Kumar

Program : Electronics and Communication Engg.

Subject: Industrial Automation

Semester - 6th

Work Load(Lecture/Practical)per week : 04hrs (lecture)

Week No	Lecture No	THEORY
1 week	1st lecture	UNIT1: Introduction to PLC .
	2nd lecture	Concept of PLC
	3rd lecture	Functions of various blocks, limitations of relays
	4th lecture	Advantages of Building blocks of PLC
2 week	1st lecture	Different programming languages,
	2nd lecture	PLC manufacturer
	3rd lecture	UNIT2: Working of PLC
	4th lecture	Basic operation and principles of PLC
3 week	1st lecture	Basic operation and principles of PLC
	2nd lecture	Scan Cycle
	3rd lecture	Memory structures, I/O structure
	4th lecture	Programming terminal, power supply
4 week	1st lecture	Programming terminal, power supply
	2nd lecture	Memory structures, I/O structure
	3rd lecture	Revision
	4th lecture	Revision
5 week	1st lecture	1st SESSIONAL
	2nd lecture	UNIT3:Instruction Set
	3rd lecture	Basic instructions like latch, master control self holding relays.
	4th lecture	Timer instruction like retentive timers, resetting of timers.
6 week	1st lecture	Counter instructions like up counter,
	2nd lecture	down counter, resetting of counters.
	3rd lecture	Arithmetic Instructions (ADD,SUB,DIV,MUL etc.)
	4th lecture	Arithmetic Instructions (ADD,SUB,DIV,MUL etc.)
7 week	1st lecture	Arithmetic Instructions (ADD,SUB,DIV,MUL etc.)
	2nd lecture	MOV instruction
	3rd lecture	RTC(Real Time Clock Function)
	4th lecture	Watch Dog Timer
8 week	1st lecture	Comparison instructions like equal, not equal, greater, greater than equal, less than, less than equal
	2nd lecture	Ladder Programming
	3rd lecture	Ladder Programming
	4th lecture	Programming based on basic instructions, timer, comparison
9 week	1st lecture	counter, and instructions using ladder program.
	2nd lecture	Revision
	3rd lecture	Revision
	4th lecture	2nd SESSIONAL
	1st lecture	UNIT 4 : DCS

10 week	2nd lecture	Concept of DCS
	3rd lecture	DCS I/O hardware
	4th lecture	DCS I/O hardware
11 week	1st lecture	Remote Terminal Unit
	2nd lecture	Remote Terminal Unit
	3rd lecture	UNIT 5 SCADA
	4th lecture	Block Diagram of SCADA
12 week	1st lecture	Block Diagram of SCADA
	2nd lecture	Difference between Open Architecture and Dedicated System.
	3rd lecture	Difference
	4th lecture	Between DCS and SCADA
13 week	1st lecture	UNIT 6 Electrical Drives
	2nd lecture	AC Drives
	3rd lecture	DC Drives
	4th lecture	Speed and Direction control
14 week	1st lecture	Speed and Direction control Using AC and DC drives
	2nd lecture	3rd SESSIONAL
	3rd lecture	REVISION
	4th lecture	REVISION
15 week	1st lecture	REVISION
	2nd lecture	REVISION
	3rd lecture	REVISION
	4th lecture	Industrial Visit
16 week	1st lecture	REVISION
	2nd lecture	REVISION
	3rd lecture	REVISION
	4th lecture	REVISION