Department of Eltx.& Comm. Engg.
LESSON PLAN

Program Name	Diploma in Eltx. & Comm. Engg.
Course Name	Embedded Systems
Course Code	ECPC301
Course Co-ordinator Name	Aradhana

Evaluation Scheme

Sr. no.	CourseName	Study scheme (Hrs./Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Embedded Systems	3 (Th.) 1(DCS) 2(Pr.) 1 (DCS Pr)	40	40	60	60

Reference Books	(i)	Arduino Projects For Dummies By George Kennedy
	(ii)	Make: Getting Started With Arduino - The Open Source Electronics Prototyping Platform
	(iii)	https://www.arduino.cc/reference/en/ b.

Course Outcomes (COs)

CO 1	Understanding of Embedded C basics
CO 2	Understanding and designing of Arduino based application.
CO 3	Learning the use of hardware and software tools
CO 4	Development of interfacing with real world devices.
CO 5	Demonstration of various Arduino Board and the real-world application

Teaching Plan

Sr. No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	Unit 1:Embedded C basics operators for Arduino,	12-08-2024		
2	Embedded C basics operators for Arduino,	13-08-2024		
3	Embedded C basics operators for Arduino,	14-08-2024		
4	Familiarizing with the Arduino IDE	20-08-2024		
5	Familiarizing with the Arduino IDE	21-08-2024		
6	Sketch designing for Arduino,	22-08-2024		
7	Sketch designing for Arduino,	27-08-2024		
8	Communication interface using serial port,	28-08-2024		
9	Basic understanding of the code with boolean operations,.	29-08-2024		
10	Pointer access operations	02-09-2024		
11	Bitwise operations,	03-09-2024		
12	compounded operations	04-09-2024		
13	compounded operations	05-09-2024		
14	Revision of unit-1	09-09-2024		
15	Embedded C control structure blocks,	10-09-2024		
16	Embedded C control structure blocks,	11-09-2024		
17	Class Test -1	12-09-2024		
18	Looping mechanism – for, do and while.	16-09-2024		
19	Looping mechanism – for, do and while.	17-09-2024		
20	Looping mechanism – for, do and while.	18-09-2024		
21	Looping mechanism – for, do and while.	19-09-2024		
22	The branching operations based on conditions expression.	23-09-2024		
23	The branching operations based on conditions expression.	24-09-2024		
24	The branching operations based on conditions expression.	25-09-2024		
25	The branching operations based on conditions expression.	26-09-2024		

26	Revision of unit-2	30-09-2024		
27	Introduction to Arduino Mega	1-10-2024		
28	Introduction to Arduino Mega	3-10-2024		
29	Introduction to Arduino Mega	7-10-2024		
30	Arduino Mega specifications - digital & analog peripherals	8-10-2024		
31	Arduino Mega specifications - digital & analog peripherals	9-10-2024		
32	Class Test-II	10-10-2024		
33	Arduino Mega specifications - digital & analog peripherals	14-10-2024		
34	Difference between C language & Embedded C language	15-10-2024		
35	Difference between C language & Embedded C language	16-10-2024		
36	Difference between C language & Embedded C language	21-10-2024		
37	Arduino Mega Ports, Pins.	22-10-2024		
38	Arduino Mega Ports, Pins.	23-10-2024		
39	Arduino Mega Ports, Pins.	24-10-2024		
40	Arduino Mega Ports, Pins.	28-10-2024		
41	Digital and Analog Peripherals	29-10-2024		
42	Digital and Analog Peripherals	30-10-2024		
43	Digital and Analog Peripherals	4-11-2024		
44	REVISION OF UNIT-3	5-11-2024		
45	Communication with Arduino	6-11-2024		
46	Communication with Arduino	7-11-2024		
47	Communication with Arduino	11-11-2024		
48	Communication with Arduino	12-11-2024		
49	Different communication modules available with their real-life application	13-11-2024		
50	Different communication modules available with their real-life application	14-11-2024		
51	Different communication modules available with their real-life application	18-11-2024		
52	Communication interface	19-11-2024		
53	Communication interface	20-11-2024		
54	Communication interface	21-11-2024		
55	Revision of unit-4	25-11-2024		
56	Revision	26-11-2024		
57	Revision	27-11-2024		
58	Revision	28-11-2024		
59	Revision	2-12-2024		

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit I, II	11-9-2024		
A-2	Unit III , IV	13-11-2024		

House Test/Class Test

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class Test-I	30% of syllabus	2ND week of Sept.		
Class Test-II	Next 30% of syllabus	3RD week of Oct.		
House Test	80% of syllabus	2ND week of Nov.		

Lab Plan

Sr. no	Name of Practical	Proposed Date G-I	Proposed Date G-II	Actual Date G-I	Actual Date G-II	Remarks
1.	Built-in LED state control by push button sketch implementation.	12-08-2024	13-08-2024			
2.	Doubt Clearing Session	14-08-2024	14-08-2024			
3.	Doubt Clearing Session	21-08-2024,	21-08-2024			
4	Doubt Clearing Session	28-08-2024,	28-08-2024,			
5.	Built-in LED blinking sketch implementation. Or Built-in LED blinking by toggling states based on binary operation.	02-09-2024	20-08-2024			
6	Doubt Clearing Session	04-09-2024	04-09-2024			
7	Built-in LED state control by user interface through serial port.	09-09-2024	27-08-2024			
8	Doubt Clearing Session	11-09-2024	11-09-2024			
9.	User interface for Boolean operation and bit wise operation through serial port.	16-09-2024	3-09-2024			
10	Doubt Clearing Session	18-09-2024	18-09-2024			
11	User interface for compounded operation through serial port.	23-09-2024	10-09-2024			
12	Doubt Clearing Session	25-09-2024	25-09-2024			
13	Looping mechanism to check the state of pin and if change print its status on serial port	30-09-2024	17-09-2024			
14	Controlling multiple LEDCS with a loop and an array.	7-10-2024	24-09-2024			
15	Doubt Clearing Session	9-10-2024	9-10-2024			
16	Use a potentiometer to control the blinking of an LED	14-10-2024	1-10-2024			
17	Doubt Clearing Session	16-10-2024	16-10-2024			
18	Uses an analog output (PWM pin) to fade an LED.	21-10-2024	8-10-2024			
19	Doubt Clearing Session	23-10-2024	23-10-2024			
20.	Servo Motor Control using PWM	28-10-2024	15-10-2024			
21	Doubt Clearing Session	30-10-2024	30-10-2024			
22.	Temperature sensor interfacing and sending its reading over serial port.	04-11-2024	22-10-2024			
23	Doubt Clearing Session	06-11-2024	06-11-2024			

No.	Practical					
24.	Temperature sensor interfacing and sending its reading over serial port.	11-11-2024	29-10-2024			
25	Doubt Clearing Session	13-11-2024	13-11-2024			
26.	I2C light sensor interfacing and sending its reading over serial port	18-11-2024	5-11-2024			
27	Doubt Clearing Session	20-11-2024	20-11-2024			
28.	I2C light sensor interfacing and sending its reading over serial port	25-11-2024	12-11-2024			
29	Doubt Clearing Session	27-11-2024	27-11-2024			
30.	Viva	02-12-24	19-11-24			
31.	Revision of practicals	-	26-11-24			

(Signature of Teacher)

(ARADHANA)

(Signature of HOD)

LESSON PLAN

Program Name	ELTX & COMM ENGG.
Course/Subject Name	MAINTENANCE OF COMPUTER SYSTEM
Course/Subject Code	ECPE 301 (III)
Course/Subject Coordinator Name	Anil Kumar

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	MOCS	TH |3+1(DCS)	40	60	60	60
	Reference books		1. PC Organisation by S. Chowdhury, Dhanpat Rai & Sons, Delhi 2. IBM PC Colons by GovindaRajalu, Tata McGraw Hill Education Pvt Ltd, New Delhi 3. Text Book by Mark Minasi 4. Computers by P.Norton 5. Troubleshooting and maintenance of Computers by prof. S.P.S. Saini Vayu Education of India, New Delhi			

Program Specific Outcomes (COs):

CO1 Assess customer's requirement of a computer system with required specification.

CO2 Identify the principal components of a computer system.

CO3 Able to perform system installation and peripheral configurations.

CO4 Prioritizing activities and organizing resources to meet desired outcome

Teaching Plan: (16×4=64)

Lecture No.	Topic Covered	Proposed date	Actual Date	Remarks
1	**Mother Board:** Introduction to different type of mother boards, Single Board Based System	12/08/2024		
2	**Mother Board:** Introduction to different type of mother boards, Single Board Based System	13/08/2024		
3	Block diagram of motherboard	14/08/2024		
4	Block diagram of motherboard	19/08/2024		
5	Installation of Computer System	20/08/2024		
6	Installation of Computer System	21/08/2024		
7	DCS	22/08/2024		
8	**Buses and Ports:** Different type of Buses	27/08/2024		
9	PCI, SCSI	28/08/2024		
10	DCS	29/08/2024		
11	Serial and Parallel ports (COM ports) Ports COM 1, LPTI	02/09/2024		
12	USB. RS 232 C	03/09/2024		
13	Use of computer for instrumentation	04/09/2024		
14	DCS	05/09/2024		
15	Use of computer for instrumentation	09/09/2024		
16	**Memory:** Principle and construction of Hard Disk Drive (HDD).	10/09/2024		
17	Floppy Disk Controller	11/09/2024		
18	DCS	12/09/2024		
19	Hard Disk Controller	16/09/2024		
20	Pen Drives	17/09/2024		
21	Common faults with hard disk drive and floppy disk drive	18/09/2024		
22	DCS	19/09/2024		
23	RAM Module	23/09/2024		
24	RAM Module	24/09/2024		
25	**Keyboard and Mouse** Block Diagram of keyboard Controller	25/09/2024		
26	DCS	26/09/2024		
27	**Keyboard and Mouse** Block Diagram of keyboard Controller	30/09/2024		
28	Keyboard switches,	01/10/2024		
29	DCS	03/10/2024		
30	keyboard faults	07/10/2024		
31	Mouse, Common faults with mouse and optical mouse	08/10/2024		
32	Introduction to scanner, digitizer.	09/10/2024		
33	DCS	10/10/2024		
34	**CRT Display:** Devices Block Diagram	14/10/2024		
35	Principle of operation of Computer Monitor	15/10/2024		
36	Difference between TV and Computer Monitor	16/10/2024		

No.	Topic	Date		
37	Video display Adaptors (monochrome and Colour)	21/10/2024		
38	Video display Adaptors (monochrome and Colour)	22/10/2024		
39	Introduction to solid state displays	23/10/2024		
40	DCS	24/10/2024		
41	**Printers:** Printing Mechanism, , , , .	28/10/2024		
42	Construction and working principles of Dot Matrix Printer	04/11/2024		
43	Inkjet Printer	05/11/2024		
44	Laser Printer	06/11/2024		
45	DCS	07/11/2024		
46	Printer Controller,	11/11/2024		
47	Centronics Interface	12/11/2024		
48	Signals from PC to Printer and Printer to PC	13/11/2024		
49	Signals from PC to Printer and Printer to PC	13/11/2024		
50	DCS	14/11/2024		
51	**Networking Devices:** Introduction to networking devices	18/11/2024		
52	**Networking Devices:** Introduction to networking devices	18/11/2024		
53	Idea about LAN, WAN	19/11/2024		
54	Wi-Fi	19/11/2024		
55	WLAN	20/11/2024		
56	ROUTER	20/11/2024		
57	DCS	21/11/2024		
58	SWITCH	21/11/2024		
59	HUB	25/11/2024		
60	**Modems:** Need and functions of modems	26/11/2024		
61	**Modems:** Need and functions of modems	27/11/2024		
62	Laptop: Their need	28/11/2024		
63	DCS	28/11/2024		
64	Laptop: function and applications.	02/12/2024		

Lab Plan : (16*2 =32+16=48)

Practical Outcomes (PrOs).
The practical in this section are PrOs (i.e. sub-components of the COs) to be developed and assessed in the student for the attainment of the competency.

Experiment No.	Name of Experiment	Proposed date	Actual Date	Remark
1	Monitors (LCD and LED)	G1 13/08/2024 G2 12/08/2024	G1 G2	
2	HDD, Partitioning and Formatting	G1 20/08/2024 G2 19/08/2024	G1 G2	
3	Laser Printer	G1 27/08/2024 G2 02/09/2024	G1 G2	
4	Mother board based on latest microprocessor and chipset CMOS Set up.	G1 03/09/2024 G2 16/09/2024	G1 G2	
5	DVD-ROM/DVD Writer	G1 10/09/2024 G2 23/09/2024	G1 G2	
6	Connectors and Cables	G1 17/09/2024 G2 30/09/2024	G1 G2	
7	MODEM/ROUTER/SWITCH	G1 24/09/2024 G2 07/10/2024	G1 G2	
8	Installation of any operating system	G1 01/10/2024 G2 14/09/2024	G1 G2	
9	Establish LAN,WLAN, using Networking Devices	G1 08/10/2024 G2 21/09/2024	G1 G2	
10	Study of LAPTOP, Smart Phone	G1 15/10/2024 G2 28/09/2024	G1 G2	

(Signature of Teacher)

(Signature of HOD)

LESSON PLAN

Program Name	ELTX & COMM ENGG.
Course/Subject Name	Optical Communication and Networking
Course/Subject Code	ECPE305 (II)
Course/Subject Coordinator Name	Aman Kumar Sood

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	OC&N	TH [3+1(DCS)	40	60	60	60
	Reference books		1. Optical fiber Communication by John M Senior, Prentice Hall of India, New Delhi 2. Optical fiber Communication by J. Gower, Prentice Hall of India, New Delhi 3. Optical fiber Communication by Gerd Keiser, McGraw Hill International Editions 4. Optical Communications - Components and Systems by JH Franz and VK Jain, Narosa Publishing House, New Delhi 5. Optical Fiber Communication by Sangar and Sahdev, Uneek Publications, Jalandhar			

CO1
Identify, formulate and solve optical communication networks related problems
using efficient technical approaches.
CO2
Design optical networks as well as to interpret statistical and physical data.
CO3
Design and implement WDM networks.
CO4
Apply the knowledge to control and manage the functions of optical networks.
CO5
Recognize the network survivability by various protection schemes

Teaching Plan: (16×4=64)

Lecture No.	Topic Covered	Proposed date	Actual Date	Remarks
1	**Introduction:** Historical perspective	12/08/2024		
2	Basic optical fibre communication system	13/08/2024		
3	Basic optical fibre communication system	14/08/2024		
4	Advantages and disadvantages of optical communication	19/08/2024		
5	Applications of fiber opticcommunication	20/08/2024		
6	Electromagnetic spectrum	21/08/2024		
7	DCS	22/08/2024		
8	Optical frequency range	27/08/2024		
9	Principle of light penetration, reflection, concept of critical angle.	28/08/2024		
10	DCS	29/08/2024		
11	**Optical Fibers and Cables:** Constructional details of various optical fibers	02/09/2024		
12	**Optical Fibers and Cables:** Constructional details of various optical fibers	03/09/2024		
13	Multimode and mono-mode fibers	04/09/2024		
14	DCS	05/09/2024		
15	Step index and graded index fibers	09/09/2024		
16	Numerical aperture	10/09/2024		
17	Acceptance angle	11/09/2024		
18	DCS	12/09/2024		
19	Types of Optical fiber cables	16/09/2024		
20	Optical Fiber cable connectors and Splicing techniques (Mechanical, fusion).	17/09/2024		
21	**Losses in Optical Fiber:** Absorption losses	18/09/2024		
22	DCS	19/09/2024		
23	Scattering losses	23/09/2024		
24	Radiation losses	24/09/2024		
25	Connector losses	25/09/2024		
26	DCS	26/09/2024		
27	Bending loses.	30/09/2024		
28	Dispersion:Types of dispersion	01/10/2024		
29	DCS	03/10/2024		
30	Testing of losses usingOTDR(OpticalTimeDomainReflectometer).	07/10/2024		
31	**Optical Sources:** Characteristics of light used in optical communication	08/10/2024		
32	Principle of operation of LED	09/10/2024		
33	DCS	10/10/2024		

34	Differenttypes of LED structures used and their brief description	14/10/2024		
35	Differenttypes of LED structures used and their brief description	15/10/2024		
36	Injection laser diode, principle of operation	16/10/2024		
37	Different injection laser diodes	21/10/2024		
38	Different injection laser diodes	22/10/2024		
39	Comparison of LED and ILD.	23/10/2024		
40	DCS	24/10/2024		
41	**Optical Detectors:** Characteristics of photo detectors used in optical communication	28/10/2024		
42	Characteristics of photo detectors used in optical communication	04/11/2024		
43	PN photodiode	05/11/2024		
44	PN photodiode	06/11/2024		
45	DCS	07/11/2024		
46	PIN photodiode	11/11/2024		
47	Avalanche photodiode(APD).	12/11/2024		
48	**Optical Amplifiers:** semiconductor & fiber optical amplifiers Functional types	13/11/2024		
49	Semiconductor & fiber optical amplifiers Functional types	13/11/2024		
S50	DCS	14/11/2024		
51	Principalof operation of SOA	18/11/2024		
52	Types of SOA	18/11/2024		
53	FPA, TWA,	19/11/2024		
54	SOA applications ,advantages, Drawbacks	19/11/2024		
55	SOA applications ,advantages, Drawbacks	20/11/2024		
56	Fibre Optical Amplifiers: EDFAs, Raman amplifiers.	20/11/2024		
57	Fibre Optical Amplifiers: EDFAs, Raman amplifiers.	21/11/2024		
58	DCS	21/11/2024		
59	**Optical Fiber System networking and Application:** Role of OFC in Fiber to the x (FTTx),	25/11/2024		
60	**Optical Fiber System networking and Application:** NGN (Next Generation Network)	26/11/2024		
61	NFS (Need for Spectrum)	27/11/2024		
62	DCS	28/11/2024		
63	IoT (Internet of Things).	28/11/2024		
64	IoT (Internet of Things).	02/12/2024		

Lab Plan : (16*2 =32+16=48)

Practical Outcomes (PrOs).
The practical in this section are PrOs (i.e. sub-components of the COs) to be developed and assessed in the student for the attainment of the competency.

Experiment No.	Name of Experiment	Proposed date	Actual Date	Remarks
1	Setting up of fiber analog link	G1 22/08/2024 G2 16/08/2024	G1 G2	
2	Setting up of optic digital link	G1 29/08/2024 G2 23/08/2024	G1 G2	
3	Measurement of bending losses in optical fibers	G1 05/09/2024 G2 30/08/2024	G1 G2	
4	To measure and calculate numerical aperture of optical fiber	G1 12/09/2024 G2 06/09/2024	G1 G2	
5	To observe characteristics of LED source and detector	G1 19/09/2024 G2 13/09/2024	G1 G2	
6	To demonstrate the splicing of optical fiber	G1 26/09/2024 G2 20/09/2024	G1 G2	
7	Demonstration of various components and tools used in optical fiber communication networking.	G1 03/10/2024 G2 27/09/2024	G1 G2	

(Signature of Teacher)

(Amen Kumar Sond)
Lecturer ECE

(Signature of HOD)

LESSON PLAN

Program Name	ELTX & COMM ENGG.
Course/Subject Name	**PLC & Automation**
Course/Subject Code	**ECEOE301**
Course/Subject Coordinator Name	ASHOK KUMAR

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	ELECTRICAL CIRCUITS & NETWORKS	TH |3+1(DCS)	40	-	60	-
	Reference books		1. Introduction to Transducers by Arun K. Ghosh, PHI Learning 2. Transducers Engineering by S. Vijayachitra , PHI Learning 3. Programmable Logic Controller Jadhav, V. R. Khanna publishers. New Delhi 4. PLCs & SCADA Theory and Practice, Rajesh Mehra , Vikrant Vij.Laxmi Publications Private Limited. 5. PLC and Automation, Mahesh S. Patil , Rahul K. Sarawale, Nirali Prakashan			

<u>Course Outcomes</u>: After the completion of the course the student will be able to:

CO1: Identify different types of Automation systems.
CO2: Understand the basics of PLC programming
CO3: Understand the different parameters of PLC.
CO4: Design different process control applications through ladder logic

Teaching Plan:

Lecture No.	Topic Covered	Proposed date	Actual Date	Remarks
1	**Introduction to Automation** Definition	01-08-2024		
2	**Introduction to Automation** Role of Automation	02-08-2024		
3	**Introduction to Automation** Industrial Applications	02-08-2024		
4	**Doubt Clearing Session**	07-08-2024		
5	**Introduction to Automation** History of Automation	08-08-2024		
6	**Automation Components** Relays: Concept of relays, Relay wiring for logic gates	09-08-2024		
7	Switches and its types	09-08-2024		
8	**Doubt Clearing Session**	14-08-2024		
9	Sensors & types	16-08-2024		
10	Working principal of Optical Sensors	16-08-2024		
11	Capacitive Sensors	21-08-2024		
12	**Doubt Clearing Session**	22-08-2024		
13	Inductive Sensors,	23-08-2024		
14	Ultrasonic Sensors	23-08-2024		
15	Fluid flow Industrial Sensors	28-08-2024		
16	**Doubt Clearing Session**	29-08-2024		
17	Angular displacement Potentiometers,	30-08-2024		
18	Encoders, tachometers	30-08-2024		
19	Linear Position (LVDT)	04-09-2024		
20	**Doubt Clearing Session**	05-09-2024		
21	Forces and Moments (Strain gages, Piezoelectric)	06-09-2024		
22	Liquids and Gases (Pressure, Venturi valves, Magnetic and Ultrasonic flow meter, Pilot Tubes)	06-09-2024		
23	Liquids and Gases (Pressure, Venturi valves, Magnetic and Ultrasonic flow meter, Pilot Tubes)	11-09-2024		
24	**Doubt Clearing Session**	12-09-2024		
25	Temperature (RTDs)	13-09-2024		
26	Thermocouples, Thermisters	13-09-2024		
27	Light (LDR).	18-09-2024		
28	**Doubt Clearing Session**	19-09-2024		
29	Concept of Control Actuators, Different types)	20-09-2024		
30	Control Actuators (Solenoids, Valves, Hydraulics, neumatics	20-09-2024		
31	Introduction, Advantages of PLC control Panel	25-09-2024		
32	**Doubt Clearing Session**	26-09-2024		
33	Architecture of PLC	27-09-2024		
34	Functions of various Blocks of PLC	27-09-2024		

35	Working principle of PLC			
36	**Doubt Clearing Session**	03-10-2024		
37	Memory types , Different types of Input/Output circuits	04-10-2024		
38	Memory types , Different types of Input/Output circuits	04-10-2024		
39	Concept of inputs and outputs	09-10-2024		
40	**Doubt Clearing Session**	10-10-2024		
41	Concept of Digital inputs and outputs	11-10-2024		
42	Concept of sink and source input/ output cards	11-10-2024		
43	Programming Methods, Programming devices, Programming with PLC	16-10-2024		
44	**Doubt Clearing Session**	18-10-2024		
45	Programming Methods, Programming devices, Programming with PLC	18-10-2024		
46	Programming Methods, Programming devices, Programming with PLC	23-10-2024		
47	Basic Instructions - NO and NC contacts	24-10-2024		
48	**Doubt Clearing Session**	25-10-2024		
49	Boolean gates - symbols and truth tables	25-10-2024		
50	Introduction to Ladder Logic programming	31-10-2024		
51	Concept of latching and unlatching	06-11-2024		
52	**Doubt Clearing Session**	07-11-2024		
53	Compute/math Instructions, Move and Logical Instructions	08-11-2024		
54	Timers and counters	08-11-2024		
55	Maintenance and Trouble Shooting of PLC	13-11-2024		
56	**Doubt Clearing Session**	14-11-2024		
57	Input / Output, Compare	20-11-2024		
58	Maintenance and Trouble Shooting of PLC	21-11-2024		
59	Selection of PLC	22-11-2024		
60	**Doubt Clearing Session**	22-11-2024		
61	Applications of PLC, Timer and Counters	27-11-2024		
62	User and Bit Functions	28-11-2024		
63	Programming Instructions	29-11-2024		
64	**Doubt Clearing Session**	29-11-2024		
		30-11-2024		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed date	Actual date	Remarks
A-1	**Introduction to Automation, Automation Components**	30-08-2024		
A-2	**PLC (Programmable Logic controller)**	29-09-2024		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	As per Academic Calender		
CT-II	Next 30% of the syllabus	As per Academic Calender		
House Test	80% of the syllabus	As per Academic Calender		

(Signature of Teacher)   (Signature of HOD)