



SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA INDORE

Report on Workshop on “Basics of PLC & Ladder Logic Design” In association with Mitsubishi Electric India

The Department of Electrical and Electronics SVITS successfully conducted a workshop on “Basics of PLC & Ladder Logic” for the SVITS,SVVV and other colleges students under the industry academia collaboration with Mitsubishi Electric India.

The details of the webinar are as follows-

Particulars	Details
Objective	The objective of the workshop is to learn about PLC technological tools and ladder logic language which is used for programming of PLC.
Date	01 & 02 FEB 2022
Time	11:00pm to 1:00pm
Topic	Basics of PLC & Ladder Logic Design
Speakers	Ms. Esha Varshney, Engineer FAC MEI (Day 1) Mr. Tarun Nagar, Engineer FAC MEI (Day 2)
No. of students registered	47
No. of students attended	34

Summary

Day 1

Prof. Lalit Bhanwrela (Incharge of Mitsubishi Factory Automation Lab at EEE Dept. SVITS) was the moderator of the event and he welcomed the guest speaker Ms. Esha Varshney, Engineer FAC MEI along with Prof. Jitendra Managre EEE Dept on Day 1. After this Prof. Lalit Bhanwrela gave a brief introduction of the Mitsubishi Factory Automation Lab to the audience. The webinar session saw an overwhelming response from all registered students. A total of 34 students out of 47 students attended the session and some faculty members also participated in the session. Ms. Esha Varshney, as the guest speaker, talked about Industry 4.0 and segments of PLC. She covered the technical configuration of Mitsubishi PLC products and their applications. She also gave a brief introduction about Input Modules and concepts of source and sink input

which are used in PLC like Ladder, Function block diagram, Sequential functional block, Instruction list and Structured text etc.

Day_II


Prof. Lalit Bhanwrela (Incharge of Mitsubishi Factory Automation Lab at EEE Dept. SVITS) was the moderator of the event and he welcomed the guest speaker Mr. Tarun Nagar, Engineer FAC MEI along with Prof. Jitendra Managre EEE Dept. In the second session of this workshop he talked about the programming part and gave the examples of motor power on-off PLC programs, timer based power operations etc. After the session students asked various questions in the Q&A part and all the questions were technically handled by the speaker. In the end Prof. Jitendra Managre EEE Dept. proposed the words of thanks.

Glimpse of Workshop

Day_1

The screenshot displays a Google Meet interface during a workshop session. The main video area shows a presentation slide from Mitsubishi Electric. The slide content includes the Mitsubishi Electric logo, the tagline "Changes for the Better", and the title "Online training in Mitsubishi Electric FA learning Kit products and its application in industry (iQR PLC, GOT2000, A800VFD, Servo)". Below the title, it says "By Esha Varshney- Engineer". To the right of the main video, there is a grid of participant avatars. The participants listed are Esha Varshney, Lalit Bhanwrela, Yamini Makasare, Yuvraj Singh, Lokesh Gupta, Ayushman Rathore, Madhav Mishra, and a group of 21 others. The bottom of the screen shows the Windows taskbar with the time 11:21 AM and the date 01-02-2022.

Esha Varshney is presenting

**MITSUBISHI ELECTRIC**
Chances for the Better

Contents

1. Introduction
2. Segments of Automation
3. Role of An Engineer
4. Factory Automation Products
5. What is PLC? Study of PLC Architecture.
6. e-factory (IIOT)
7. Q & A

Esha Varshney

Lalit Bhanwre SVVV

Yamini Makasare

yuvraj singh

Lokesh Gupta

Ayushman Rathore

Mohit Singh Chouhan


21 others

You


Kartik Singh joined

Day 1_ Workshop on Basics of PLC and Ladder Logi...

Esha Varshney is presenting

**MITSUBISHI ELECTRIC**
Chances for the Better

Example For Industry 4.0



Esha Varshney

Lalit Bhanwre SVVV

Yamini Makasare

Lokesh Gupta

Tanushree Devda

yasmine anwaraly

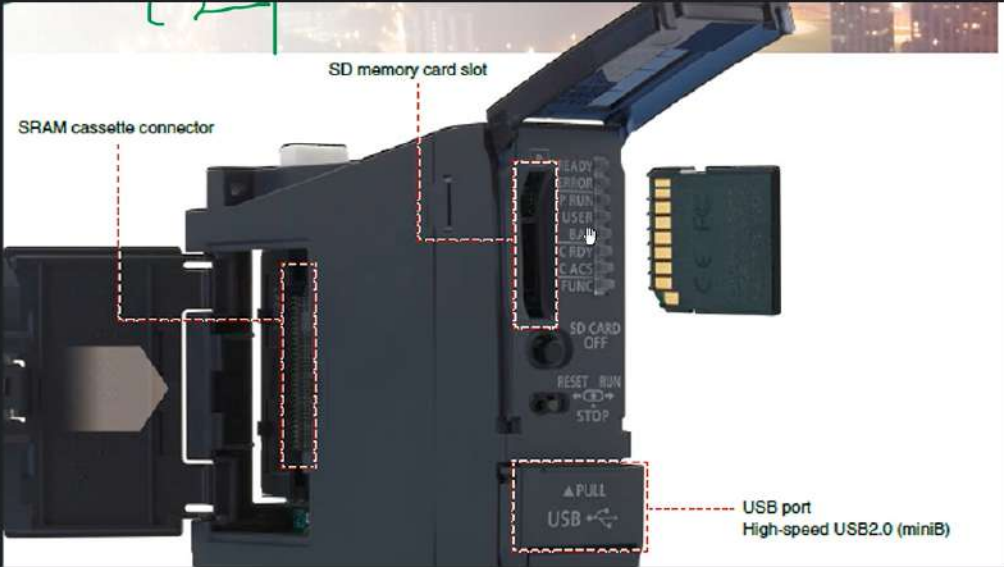
Mohit Singh Chouhan

26 others

You

Day 1_ Workshop on Basics of PLC and Ladder Logi...

Esha Varshney is presenting



Day 1_ Workshop on Basics of PLC and Ladder Logi...

Esha Varshney

Yamini Makasara

yasmine anwaraly

Tanushree Devda

Lalit Bhanwre SVVV

Dikshant Agrawal


Madhav Mishra

23 others

You

Esha Varshney is presenting

Press Esc to exit full screen



I/O Module Details

For a greater tomorrow

Input modules						
Module name		Input specifications	Number of occupied I/O points	Current consumption	Weight	Model
AC input module		Terminal block 100 to 130VAC, 16 points	16 points	110mA	0.18kg	FX3U-16
DC input module	Positive/negative common shared type	Terminal block 24VDC, 16 points	16 points	110mA	0.18kg	FX3U-16C2
		40-pin connector 24VDC, 32 points	32 points	150mA	0.41kg	FX3U-16C4
		40-pin connector (D-2) 24VDC, 64 points	64 points	160mA	0.13kg	FX3U-16C4
DC high-speed input module	Positive common type	Terminal block 24VDC, 16 points	16 points	100mA	0.18kg	FX3U-16PCB1
	Negative common type	Terminal block 24VDC, 16 points	16 points	100mA	0.18kg	FX3U-16PCB1

Day 1_ Workshop on Basics of PLC and Ladder Logi...

Esha Varshney

Yamini Makasara

yasmine anwaraly

Tanushree Devda

Lalit Bhanwre SVVV

Dikshant Agrawal

Madhav Mishra

19 others

You

The screenshot displays a Zoom meeting in progress. The meeting title is "Day 1_ Workshop on Basics of PLC and Ladder Logi...". The interface shows a grid of eight participants: Govind Kumar, Esha Varshney, Madhav Mishra, Dikshant Agrawal, Siddharth Gupta, ADITYA GUPTA, Lalit Bhanwreia SVVV, and You. The Zoom status bar at the bottom includes controls for microphone, video, chat, hand raise, screen share, and a red phone icon. A notification indicates 27 other participants are in the meeting.

Tarun Nagar is presenting

MEISOFT GX Works3 (Untitled Project) - [ProgPau[PRG][L0] 1Step]

Project Edit Find/Replace Convert View Online Debug Recording Diagnostics Tool Window Help

ProgPau [PRG] Local Label Set... ProgPau [PRG] [L0] 25Step

Watch 1

meet.google.com is sharing your screen. Stop sharing Hide

ugq-wokr-gsb

Tarun Nagar

Yamini Makasara

Mohit Singh Chow...

Lalit Bhanwre SVVV

Dikshant Agrawal

Madhav Mishra

Vansh Jaiswal

29 others

You

Tarun Nagar is presenting

MEISOFT GX Works3 (Untitled Project) - [ProgPau[PRG][L0] 4Step]

Project Edit Find/Replace Convert View Online Debug Recording Diagnostics Tool Window Help

Navigation

- Project
- Module Configuration
- Program
- Initial
- Scan
- Label
- ProgPau
- Local Label
- ProgPau body
- Fixed Scan
- Event
- Standby
- No Execution Type
- Unregistered Program
- FS/PLN
- Label
- Device
- Parameter

ProgPau [PRG] Local Label Set... ProgPau [PRG] [L0] 4Step

Watch 1 (Patching)

meet.google.com is sharing your screen. Stop sharing Hide

ugq-wokr-gsb

Tarun Nagar

Yamini Makasara

Utkarsh Rajput

Lalit Bhanwre SVVV

Dikshant Agrawal

Madhav Mishra

Taher Moaiyadi

27 others

You

Firefox Authentic... | Inbox (2,007) - jite... | Inbox (440) - jite... | Inbox (4) - felab... | Google Forms | (10) WhatsApp | Meet - ugq... | +

meet.google.com/ugq-wokr-gsb

Apps | https://svvvp.m... | about:blank | Inbox (1,695) - jiten... | SVVV Online | New Tab | Lecture 1 fundame... | Basic concepts of el... | Basic of PLC Ladder... | Reading list

Tarun Nagar is presenting

MELSOFT GX Works2 (Limited Project) - [Device: Tuffe Minum 3000 Monitor] (Works2)

Project | Edit | Find/Replace | Convert | View | Debug | Download | Diagnostics | Tools | Window | Help

Navigation | Project | Module Configuration | Initial | Scan | Program | Local Label | Program Body | Event | Standby | No Execution Type | Unregistered Program | I/O I/O | Label | Device | Parameter

Device Data | Open Diagnostics | Detailed Conditions | Running

Device Name	Unit	Address	Value
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
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9	9	9	9
10	10	10	10
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99	99	99	99

12:05 PM | ugq-wokr-gsb

Type here to search

26°C Sunny

12:05 02-02-2022

Tarun Nagar is presenting

MELSOFT GX Works2 (Limited Project) - [R08CPU CPU Parameter]

Project | Edit | Find/Replace | Convert | View | Debug | Download | Diagnostics | Tools | Window | Help

Navigation | Project | Module Configuration | Initial | Scan | Program | Local Label | Program Body | Event | Standby | No Execution Type | Unregistered Program | I/O I/O | Label | Device | Parameter

Setting Method | Setting Item

Setting Method	Setting Item
Timer Limit Setting	Low Speed Timeout, Low Speed Retention Time, High Speed Timeout, High Speed Retention Time, Long Timeout, Retention Time
RUN-PAUSE Cooldown Setting	RUN, PAUSE
Parameter Reset Setting	Parameter Reset
Output Mode Setting at STOP to RUN	Output Mode at STOP to RUN
Module Synchronization Setting	Module Synchronization
Clock Related Setting	Clock Related Setting

12:29 02-02-2022

ugq-wokr-gsb

Tarun Nagar is presenting

Global Label

Label	Value	Unit	Size (Byte)
System Parameter/CPU Parameter	0	ms	Not Calculated
Module Parameter	0	ms	Not Calculated
Memory Card Parameter	0	ms	Not Calculated
Remote Parameter	0	ms	Not Calculated
Global Label	0	ms	Not Calculated
Program	0	ms	Not Calculated
MATH	0	ms	Not Calculated
Device Memory	0	ms	Not Calculated

Stop sharing

Tarun Nagar is presenting

Comparison of Timers

Timers	Minimum Time base (in ms)	Maximum Time base (in ms)	Preset Value
Low speed Timers	1	1000	0 - 32767
High Speed Timers	0.01	100	0 - 32767
Long Timers	0.001	1000	0 - 2147483648

Stop sharing

ugq-wokr-gsb

Dikshant Agrawal

Lalit Bhanwre,SYV

Tarun Nagar

Madhav Mishra

Siddharth Gupta

yuvraj singh

Vivek Kamble

16 others

You

24

ugq-wokr-gsb

Sheshank Patil

Lalit Bhanwre,SYV

Tarun Nagar

Madhav Mishra

Siddharth Gupta

yuvraj singh

Syed Wasay Hyder Bilgrami

16 others

You

24