

Workshop Report

FACULTY TRAINING

WORKSHOP ON INDUSTRIAL AUTOMATION WITH PLCS



Content of Workshop:

- ☒ PLC Architecture
- ☒ Basics of PLC Programming
- ☒ Basic Logic Gates
- ☒ Ladder Logic Diagram
- ☒ Hands on Training



Prof. Nita Patil
Trainer

SATURDAY, NOVEMBER 8, 2025

09:00 am to 04:00 pm
BOSCH Centre of Excellence
C G Patel Institute of Technology

Contact Person: Prof. Jayesh Parekh, Centre In charge (+91-90997-79262)



छोटुभाई गोपालभाई पटेल प्रौद्योगिकी संस्थान, बारडोली
Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli

Title of the Activity:

Faculty Training Workshop on Industrial Automation with PLCs

Date and Time:

Saturday, November 8, 2025 | 09:00 AM to 04:00 PM

Venue:

**Bosch – Centre of Excellence, C. G. Patel Institute of Technology (CGPIT)
Uka Tarsadia University, Bardoli**

Organizing Details:

The **Faculty Training Workshop on Industrial Automation with PLCs** was organized by the **Bosch Centre of Excellence, C. G. Patel Institute of Technology (CGPIT)**, under **Uka Tarsadia University (UTU)**, Maliba Campus. The training aimed to provide hands-on learning and technical exposure to faculty members on **Programmable Logic Controllers (PLCs)** and their role in industrial automation systems.

Trainer: Prof. Nita Patil

Department of Electronics and Communication Engineering
C. G. Patel Institute of Technology

Contact Person: Prof. Jayesh Parekh

Centre In-charge, Bosch Centre of Excellence
Contact: +91-90997-79262

Participants:

18 Faculty members from various departments including **Mechanical, Electrical, Mechatronics, Civil, Electronics and Communication, and ICT Engineering** of CGPIT and Diwaliba college, actively participated in the workshop. The training witnessed enthusiastic engagement throughout the sessions.

Purpose of the Workshop:

The primary objective of this faculty training was to impart essential knowledge of **industrial automation using PLCs**, enabling participants to integrate automation-related concepts into their teaching and laboratory sessions. The program also emphasized bridging the gap between theoretical understanding and industrial practices through practical exposure.

Content of the Workshop:

The workshop covered the following key topics:

- PLC Architecture
 - Basics of PLC Programming
 - Basic Logic Gates
 - Ladder Logic Diagram
 - Hands-on Training on PLC Hardware and Software
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Activity Details:

The one-day workshop consisted of both **theoretical sessions** and **practical demonstrations**. Prof. Nita Patil conducted interactive lectures explaining the fundamentals of PLC systems, logic operations, and programming structures. Participants were then guided through ladder logic diagram development and simulation exercises, followed by **hands-on training** using the PLC trainer kits available at the Bosch Centre of Excellence.

The hands-on session included:

- Understanding input/output modules
- Writing and testing basic PLC programs
- Implementing logical operations using ladder diagrams
- Executing real-time automation tasks on training setups

Outcomes Achieved:

Qualitative Outcomes:

- Improved understanding of PLC hardware, architecture, and working principles.
- Enhanced capability to develop and simulate ladder logic programs.
- Strengthened technical proficiency in handling PLC systems.
- Encouraged interdisciplinary applications of automation across departments.

Quantitative Outcomes:

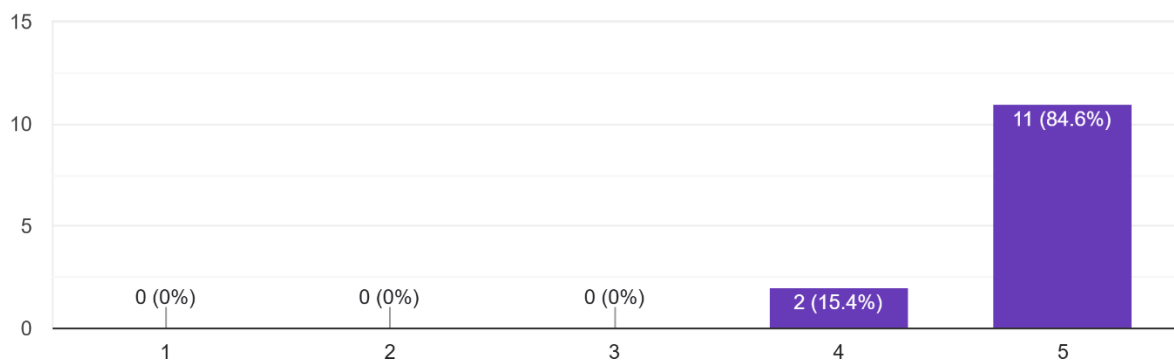
- Total Participants: 18
 - Duration: *One Day (7 Hours)*
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Feedback and Reflections:

Participants expressed that the workshop provided a valuable learning experience combining theory and hands-on practice. The inclusion of practical exercises significantly improved conceptual clarity. It was suggested that the advance knowledge of PLC in continuation should be carried out.

How satisfied are you with the overall workshop experience?

13 responses



Supporting Documents:

1. Attendance Sheet
2. Photographs of the Event

Report Prepared by:

Prof. Jayeshkumar Parekh
Centre In-charge, Bosch Centre of Excellence
C. G. Patel Institute of Technology

Approved by:

Mr. Darshan Kapadia
Head, Mechanical/Automobile/Mechatronics Department, CGPIT

Prof. B. M. Vadher
Director, CGPIT

Attendance Sheet

Faculty Training on "One Day Workshop on Industrial Automation with PLCs"					
Attendance sheet 08/01/2025					
S.N.	Name	Designation	Dept.	College	Email
1	Mr. Chintan Desai	Asst. Prof.	EC/ICT/EE	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	chintan.desai@utu.ac.in
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4	Mrs. Hiral Shah	Lecturer	EC/ICT/EE	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	hiral.mshah@utu.ac.in
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6	Mr. Purvang R. Chauhan	Lecturer	EC/ICT/EE	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	purvang.chauhan@utu.ac.in
7	Dr. Parvash B. Gujarati	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	parvash.gujarati@utu.ac.in
8	Mrs. Palak H. Desai	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	palak.desai@utu.ac.in
9	Dr. Harshal Gamit	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	harshal.gamit@utu.ac.in
10	Mr. Jignesh M. Sohaliya	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	jignesh.sohaliya@utu.ac.in
11	Mr. Mohammad Hussain Shaikh	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	muhammad.hussain@utu.ac.in
12	Mr. Hareesh R. Ghoniya	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	hareesh.ghoniya@utu.ac.in
13	Mr. Naitikkumar B. Patel	Asst. Prof.	Mech/Mecha/Auto	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli	naitik.patel@utu.ac.in
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17	Mr. Nishant Mehta	Lecturer	Electrical Engg.	Diwaliba Polytechnic, Mahuva	nishant.mehta@utu.ac.in
18	Mr. NarvatSinh Patel	Lecturer	Electrical Engg.	Diwaliba Polytechnic, Mahuva	narvat.patel@utu.ac.in
19	Mrs. Pooja Rajbaraiya	Lecturer	Electrical Engg.	Diwaliba Polytechnic, Mahuva	pooja.rajbaraiya@utu.ac.in
20	Mr. Janak Mehta	Asst. Prof.	Civil Engg.	Diwaliba Polytechnic, Mahuva	janak.mehta@utu.ac.in

Glimpse of Workshops





