MAYA TARSADIA INDUSTRIAL AUTOMATION RESEARCH AND DEVELOPMENT CENTER
UKA TARSADIA UNIVERSITY

(NAAC Accreditated B+ grade with CGPA 2.74)

Basic training in Programmable Logic Controller and Sensors

Contents

- Basic concepts of PLC
- Hardware overview of Indracontrol PLC's and supported modules
- Technical specification of Indracontrol PLC and supported modules.
- Programming of Indracontrol PLC's
- Troubleshooting of Indracontrol PLC's
- Project Development in Indralogic
- Logic development with ladder diagram
- Magnetic, Inductive, Capacitive, Photoelectric and Ultrasonic sensors
- Application and limitation of sensors
- Interfacing with Hydraulics and Pneumatics

Prerequisites

- Students having science background with PCM group
- Diploma final year students
- Third year onwards students of Mechanical and Electrical sister branches
- M.Tech. students irrespective of branches
- Teaching faculties
- Corporate/Industries employee

Teaching and Learning Media

- Multimedia presentation
- Actual components and accessories
- PC animations
- Circuit simulation on trainer's kit

Deliverables

- Training manual
- Training certificate

Learning goals

- Characteristics of a PLC
- Analysis of the process schematic
- Statement of the interlocking functions and the safety requirements
- Creating of a control system function
- Selection of the necessary hardware units
- Programming
- Simulation
- Start-up procedure
- Testing

Duration

- 5 days
- 2 ~3 hours theory sessions
- 4 ~ 5 hours a day

Fees

- For student ₹ 2500/-
- For faculty ₹ 4000/-
- For corporate trainee ₹ 5000/-

Special Vacation batch

- A training schedule is as follows.
- B1 : 20-05-2019 to 24-05-2019,
  B2 : 27-05-2019 to 31-05-2019,
  B3 : 03-06-2019 to 07-06-2019 and
  B4 : 10-06-2019 to 14-06-2019

Amenities

- Breakfast, lunch and high tea

Information and registration

Jayesh Jariwala
In-charge, Maya Tarsadia Industrial Automation Research and Development Center
Chhotubhai Gopalbhai Patel Institute of Technology,
Uka Tarsadia University,
Maliba Campus, Gopal Vidyanagar,
Bardoli Mahuva Road, Tarsadi
Dist: Surat - 394350, Gujarat (INDIA)
Email: jayesh.jariwala@utu.ac.in
https://utu.ac.in
https://cgpit-bardoli.edu.in

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Awakening Wisdom.

Imparting Knowledge.

Transforming Lives.

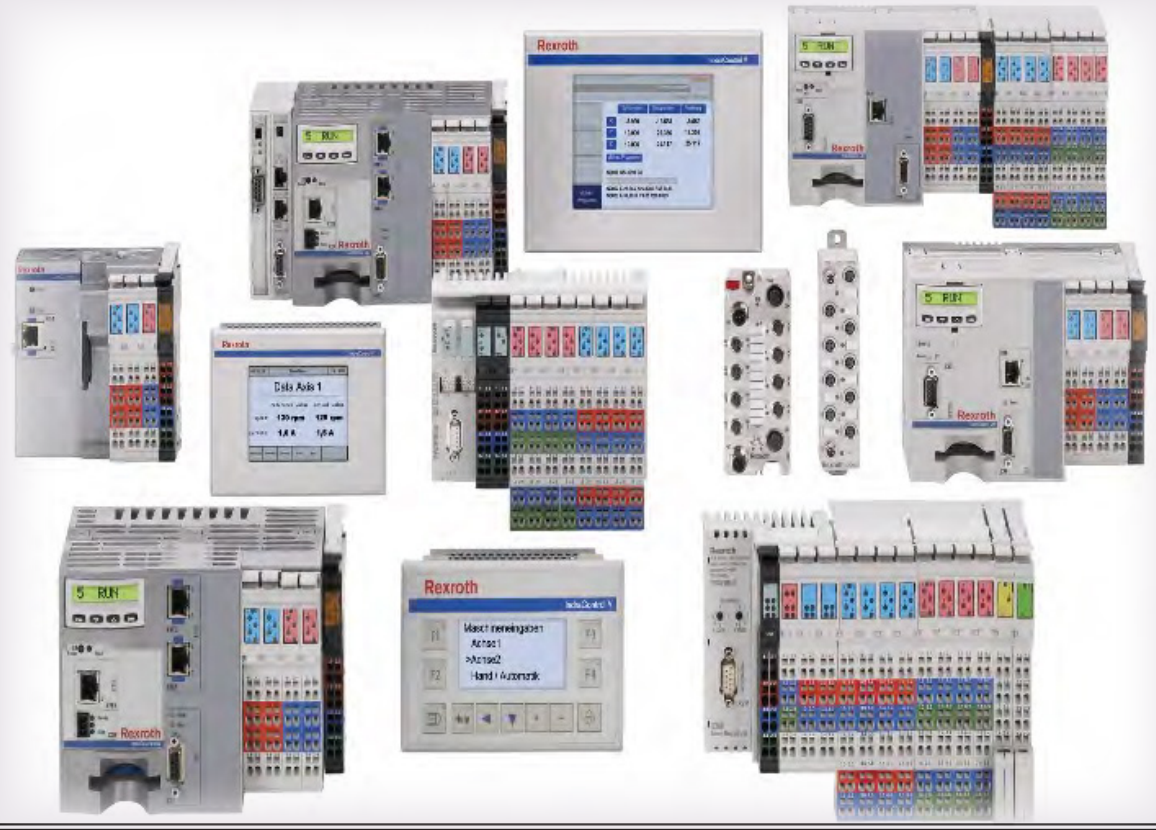
About PLC and Sensors Laboratory

As name suggests, logic enables human smarter and efficient. It is the process which receives information via sensor signals and sends the output signals to the systems attached to the PLC unit. This is the essential element of automation. It can be used to manage extreme conditions. Be it fast, slow, small, big, cold, hot or any danger situations for human. The powerful Bosch Rexroth PLC trainer system has Analog I/O which could be used to test PID loops and other variable functions. The L20 PLC controller may be connected via an Ethernet Switch with external devices, which can be used to learn the ability to program both products from a single ethernet connection. The ethernet switch has extra ports which can be used to connect additional HMIs, to demonstrate OPC connectivity to SCADA software.

This covers the understanding of Programmable Logic Controller module, Programming languages of PLC like ladder diagram, functional block diagram, structured text, etc…

The sensors lab is equipped with magnetic, inductive, capacitive, photo-electric and ultrasonic sensors. The perfect collaboration with PLC and sensors with Hydraulics and/or pneumatics is essential to lead to Automation.

For more details, visit https://cgpit-bardoli.edu.in/bosch-lab/



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About Maya Tarsadia Industrial Automation R&D center

The present engineering industries are rapidly moving to adopt Industry 4.0 approach. The element of automation is obvious in present engineering practices too! Uka Tarsadia University is committed to be inline with cutting edge technology and practices. The motive of establishing the "Maya Tarsadia Industrial Automation Research and Development Center" was to make beneficiaries aware of the industrial automation which is the need of an hour. The beneficiary of this center will be students, faculties and people from industries. It would be the best solution to bridge and narrow down the gap between industry and academia. This will corroborate the theoretical knowledge with actual industry practices too!

BOSCH-Rexroth group is competent and well known group for automation. It serves in wide spectrum of automation applications. BOSCH-Rexroth provides industrial automation training kits containing the scaled down model of actual application components and instruments. It is matter of proud for both BOSCH-Rexroth and Uka Tarsadia University to develop this center. The center also works on "Train the trainer" concept. The trainers at the center are trained directly by Rexroth India Pvt. Ltd.