



Excellence

**in Turnkey Industrial Process Automation,
Instrumentation & Electrical Systems**

PLC/DCS, SCADA, Instrumentation & Electrical Training Centre

Hands-on
live projects

Project Site
Experience

Opportunity to
work with
Industry experts

Training on
multinational
PLC/DCS
brands

Automation,
Instrumentation &
Electrical under
single umbrella

Training Highlights

- Intensive and interactive white board sessions on fundamentals
- Latest hardware and software packages used in building training stations
- Rich and significant contents with unique training methodology
- Holistic and industrial application oriented approach
- Expert-designed, standards-based, and industry-tested world class training Programs
- Group-registration and multi-course registration discounts available
- Complimentary career counseling and placement support.

Who can benefit from these
knowledge enhancement courses?

Diploma/Degree Engineering Students of Instrumentation, Electrical & Electronics
Fresh Engineering Graduates
Industry Working Professionals
Electrical & Instrumentation Maintenance Personnel

Ditap-V™
Automation Pvt. Ltd.
Global Expertise in Process
Automation & Electrical Projects

Automation Training Program



DCS Workstation



PLC Workstation



Hands-on Live Projects

1. Foundation Training Module : (Duration- 1 month on full time basis)

- Basics of Automation
- Fundamentals of Measurement & Control
- Relay Logic and Physical Ladder Diagram
- Basics of wiring, power and related standards
- Limitations of Relay Logic and advantages of PLC
- Development of elements of PLC system and their functions
- Standard specifications of PLC
- Introduction to ISA RP 5.1 and study of P&ID
- Hardware configuration of PLC system
- Software configuration of PLC system
- Ladder programming
- SCADA software programming
- Hands-on experience on **Rockwell Automation** products like **Allen Bradley** PLC, Discrete, Digital and Analog I/O modules and RS Factory Talk View / RS Linx
- Hands-on experience on **Siemens** PLC and related programming and SCADA software
- PID control fundamentals and Introduction to Field Instrumentation
- Industry oriented and standards based assignments and close interaction with automation professionals / Final Technical Ability Test (TAT) and certification / Resume building and mock interviews and guidance for placement and entrepreneurship.



2. Advanced Training Module : (Duration - 1 month on full time basis)

- Introduction to Process Automation & Control (PAC)
- IEC 61131-3 PLC Programming Languages like LD, FBD, SFC and ST
- Industrial Networks like Modbus, ASI bus, FF, EtherNet I/P, Profibus etc
- MCC, Motor starters, energy meter and switchgears
- OPC and third party hardware / software interfacing
- Hands-on experience on advance PLCs
- Interfacing of field instruments with Process Automation & Control (PAC).
- HMI and its interfacing and programming
- Factory Acceptance Test (FAT) at our manufacturing factory.
- PID Enhanced and SCADA screen development
- Testing and commissioning

3. Comprehensive Training Module : (Duration – 2 months on full time basis)

- It's the combination of foundation and advanced automation training modules with a mini project implementation.

4. Advanced Diploma of Industrial Automation : (Duration – 4 months on full time basis)

- This includes Foundation and Advanced modules with one-month internship on live projects.
- Hands-on experience of **Honeywell C300 DCS** system which is most widely used industry worldwide.
- Visit to on-going project sites for overall experience on PLC/DCS, instrumentation.

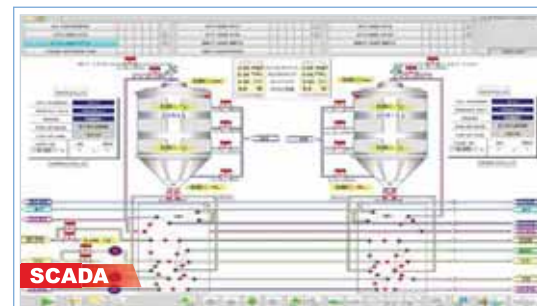
5. Customised Training Module : (Duration depends on the contents to be covered).

6. Five days Automation training program for PLC/DCS at College / Company campus.

7. DCS training Course - (Duration - 1 month on full time basis)



DCS & PLC Systems



SCADA

1. Foundation Training Module :

- Overview of total Electrical systems required for any industry.
- Introduction & technical evaluation of LT switchgears.
- Introduction of IS codes, electric symbols.
- Fundamentals of motor speed drives with special focus on VFD and soft starter.
- Designing of Power & Control drawing.

2. Advanced Training Module :

- Overall designing of complete Electrical system.
- Technical details of switchgears of major brands.
- Detail design of all kinds of Panel.
- Designing of substation up to 220KV.
- Detail designing of Earthing system.
- Detail designing of Lighting system.
- Detail designing of Lightning system.
- Detail designing of Cable calculation.
- Detail designing of Cable routing.
- Basic training on Auto-cad & E-plan
- VFD, Soft starter programming & trouble shooting.
- Project planning, execution & documentation.
- Testing & commissioning activities of electrical systems.
- Maintenance of electrical panels.



Electrical Engineering Training Program

1. Foundation Training Module :

- Fundamentals of process measurement
- Industrial Instrumentation
- Analytical Instrumentation
- Transmitter and Signal Conditioning
- Displays
- Calibration
- Transducers for measurement of Temperature, Pressure, Level and Flow.
- Transducer selection, installation practices

2. Advanced Training Module :

- Fundamentals of Process Control
- Types of control : on-off and PID
- Final control elements: Control Valves
- Control strategies: single loop, cascade, ratio and selective
- Feedforward control

3. Documentation and Detail Engineering :

- Process Flow Diagram (PFD)
- Process & Instrumentation Diagram (P&ID)
- Instrumentation Index Sheet
- Specification Sheets
- BoM / Installation Diagrams
- Loop Diagrams

Instrumentation Training Program



Workstation Demonstration



Field Instrumentation



The training programs will be concluded with a Visit to our panel manufacturing factory which is CE Certified for practical experience and understanding.

All these modules are also available for evening batches 6 to 9pm conducted exclusively for working professionals and the duration shall depend on their daily / weekly commitment.

Complimentary half day expert lecture on Automation and Instrumentation project execution cycle with documentation presentation.



Some of Our Clients :



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 Hyderabad, Bangladesh,
 Thailand, Iran, Africa, Dubai