

INDUSTRIAL AUTOMATION Training Course

TR1647/I02/001

APPLICATION FIELD - TARGET GROUP

Study and understanding of process and motors control and familiarization with most important industrial instrumentations, techniques of control loops, industrial motors. Practical measures and tests of components in laboratory are provided.

This training module is devoted to improve the basic knowledge of field technical persons with refreshing of the know-how and verification of learning results.

TOPICS

Course designed for persons needing to understand or troubleshoot the full control loop (sensors, controllers, process and Motors control)

The training course familiarizes students with :

- Common industrial instrumentation systems and teaches them to setup, calibrate, and troubleshoot common sensors, transducers, and instrumentation systems.
- Common industrial control loops and gives them the abilities to setup, tune, and troubleshoot common control loops
- Control techniques such as ON/OFF control, proportional control, proportional-integral control, and full PID control
- Understanding the complex concepts of PID control loops, and understanding overall loop dynamics, as well as familiarizing students with common terminology and controller features.

Furthermore it presents basic AC and DC motor controls concepts including

- Understanding of typical devices (pushbuttons, selector switches, sensors, starters, contactors, overloads, relays)
- Understanding of typical industrial motors
- Methods to check & test components

Exercising practically in laboratory with devices, motors and other components; measures and tests execution.

SKILLS

Professional knowledge of basic techniques for process planning and management, methods and algorithms of management science for modelling and solving complex decision problems. Capability of handling tools for system and control theory in mechanical and electrical engineering.

DURATION

60 hours

SESSION OF COURSE

Classroom: 10 session of 4 hours each
Laboratory: 5 session of 4 hours each

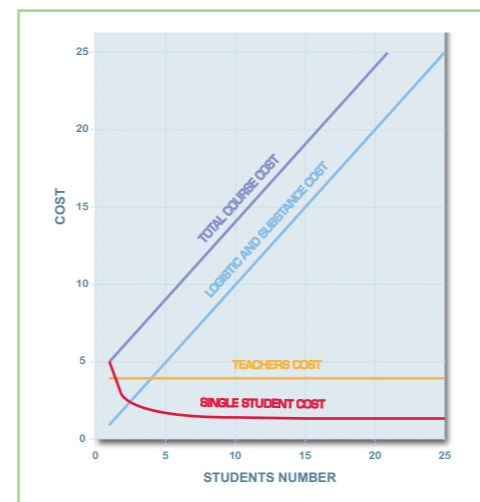
ENTRY REQUIREMENTS FOR PARTICIPANTS

High schools diploma of electrical science. Null or short employment experience.

MAXIMUM NUMBER OF STUDENTS PARTICIPATION

As you may see from the diagram, the costs of the course have their best efficiency with a number of participants ranging from 10 up to 25 units.

It is consequently suggestible to perform a teaching course with a minimum of 8 students up to a maximum of 25.



The diagram on the side is only indicative



LABORATORIES / TOOLINGS / INDIVIDUAL EQUIPMENTS



Didactic modules for study and experiments of electric motors control.



Modular didactic system for study of industrial transducers and conditioning signal circuit.



Oleodynamic and pneumatic modular trainers



TEACHING & LEARNING MATERIALS / ASSESTMENTS METHODS / CERTIFICATES



- Theory manuals,
- Workbooks,
- Users manuals.
- Schematics presentations and tables.



Evaluation questionnaire at the end of the course



Certificate of attendance at the end of course



RECEPTION PACKAGE

WELCOMING SERVICES FEES:

- Visa issuing, consular expenses for entrance to Italy and residence permit (issued by Ministry of Interior Affairs) for study purposes
- Flight ticket to Italy and return

BOARDING AND ACCOMMODATION SERVICES

- Reception at the organized lodging facilities hotel
- Board including: breakfast, lunch and dinner; drinks included

TRAINING COURSE ANCILLARIES SERVICES:

- Laundry service
- Daytime service of fixed telephone through operator at Prodit premises
- Mobile prepaid telephone service - 50 Euro/month for each student
- Shuttle service from hotel to Prodit training center and return
- Service of initial care for illness or injuries, available during the course time;
- Individual ordinary life and accident insurance, and national health service

TRAINING COURSE PACKAGE

DIDACTIC ACTIVITIES for 5 (five) days per week, as follows:

- Theoretical activities performed in classroom
- Practical activities performed in workshops and laboratories, equipped with didactic equipment
- Individual endowment for the student made up of text books, stationery and backpack
- Periodical tests for assessing student's learning
- Final examination
- Attendance Certificate (issued on the basic requirement of a minimum percentage of participation hours, equal to the 95% of the whole duration of the course)



COURSE LOCATION

These courses will be held at PRODIT ENGINEERING training center in Italy.