Industrial Automation Training Center

SYLLABUS
Of
SMC TRAINING CENTER

SMCTC – MECHATRONIC TECHNOLOGIES

➢ **OBJECTIVES**

Participants will have a course that meets 4 days where they will be able to:

- Understand the basic principles of mechatronic, which includes mechanical, electrical, and informatics
- Select and of pneumatic, electrical, and precise control for mechatronic applications
- Identify and use control system and circuits in mechatronic systems
- Conduct a systematic problem solving of mechatronic systems

➢ **COURSE CONTENT**

1. Introduction to mechatronic system and areas of application
2. The theory of mechatronic
3. Pneumatic, electrical, PLC, and other control components
4. Mechatronic system design
5. PLC programming using a shift register
6. PLC programming simulation exercises on a computer (including some training on the process sequence)
7. Introduction of Omron PLC software (CX - Programmer)
8. Example of ladder diagram using CX – Programmer
9. Assembly of the mechanical parts of mechatronic practice tool (MAP)
10. Preparation of PLC ladder diagram for MAP
11. Download / transfer to a hardware PLC on the MAP
12. Trial, troubleshooting, and finishing MAP