OMRON

F.A. Training Courses 2024

หลักสูตรการฝึกอบรมระบบควบคุมอัตโนมัติ

Code	Course	Day	Cost	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
FA1:	**PLC Level1 (CX-Programmer)**	**3**	**6,000**	23-25		6-8	3-5	7-9		3-5		4-6		6-8	
FA2:	**PLC Level2 (CX-Programmer)**	**3**	**6,000**		7-9		9-11		12-14		14-16		9-11		11-13
FA3:	PLC Network (CX-Programmer)	3	6,000												
FA4:	Servo Motor Control (CX-Programmer)	3	6,000												
FA5:	**PLC Level1 (SYSMAC Studio)**	**3**	**6,000**		14-16	20-22	22-24	15-17	19-21		21-23		16-18		18-20
FA6:	PLC Level2 (SYSMAC Studio)	3	6,000												
FA7:	PLC Network (SYSMAC Studio)	2	4,000												
FA8:	Basic Servo Motor (SYSMAC Studio)	3	6,000												
FA9:	Advance Servo Motor (SYSMAC Studio)	3	6,000												
FA10:	PLC for Database System (SYSMAC Studio)	2	4,000												
FA11:	PLC Programming by SFC and ST	2	4,000												
FA12:	Basic Programming for MMI/HMI System	2	4,000												
FA13:	Basic Vision Sensor	2	4,000												
FA14:	Basic Robotics	3	6,000												
FA15:	Safety Equipment and Controller	2	4,000												
FA16:	Safety of Machinery	2	6,500												
FA17:	Collaborative Robot Operation	2	4,000												

*ราคานี้ไม่รวม VAT 7% และหักภาษี ณ ที่จ่าย 3%

บริการอบรมนอกสถานที่ (In-House Training)
- บริการอบรม ณ บริษัทฯ หรือสถานที่ประกอบการของท่าน
- เลือกหัวข้ออบรมที่สนใจ หรือปรับเปลี่ยนหัวข้ออบรมตามความต้องการ
- ไม่จำกัดจำนวนผู้อบรม

ติดต่อสอบถามได้ที่ คุณเอมมิกา ศิริทรัพย์พัฒน โทร 098-250-0198
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FA1: PLC ระดับที่ 1 (CX-Programmer)
(PLC Level 1 (CX-Programmer)

The Level 1 PLC Usage Course introduces participants to the basics of automated control systems using PLCs as the main control device. This course is suitable for beginners or those who wish to review their foundational knowledge. The course details cover the principles and basic usage of PLCs. Participants will be able to understand the differences between control systems using relay circuits and those using PLCs. They will also be able to apply the knowledge gained to work with other PLC models and develop their own PLC programming skills.

Qualifications for Participants:

- Should have a basic understanding of electrical systems or work related to control systems, such as technicians, engineers, or interested individuals.
- Should possess basic computer skills.

Outlines

- Introduction to Basic Digital Concepts and Number Systems
- Types, Structure, and Working Principles of PLC
- Communication and Integration of PLC with Various Supporting Devices
- Programming using Software
- Using Basic Instruction
  - Basic Ladder Diagram (LD, AND, OR)
  - Control bit command (SET, RESET, KEEP, DIF Up, DIF Down)
  - Timer/Counter Command
- Special instruction
  - Compare command
  - Shift register command
  - Move command
- Basic programming and using applied software, special instruction, PLC programming practice and system demonstration.

Duration: 3 Days (9.00 – 16.30) Registration 8.30 AM.

Cost: 6,000 / Person (Exclude VAT 7% and withholding tax 3%)

Participant: 15 persons

Demo Kits: CP1L

FA2 : PLC ระดับที่ 2 (CX-Programmer)
(PLC Level 2 (CX-Programmer)

This course is suitable for those with basic knowledge or who have completed the Level 1 PLC training. The course content covers various theories of automatic control, such as ON/OFF control, Proportional (P) control, Integral (I) control, Derivative (D) control, and PID control, to build a foundational understanding of control units for participants.

Regarding PLCs, the course will focus on enabling participants to work with PLCs that can receive analog signals for both input and output units, as well as to write programs that control various types of input/output devices. Additionally, participants will learn special commands to simplify the programming of complex systems and be introduced to various types of special input/output units and PLC communication systems.

Qualifications for Participants:

- Participants of this course should have completed the Level 1 PLC course or possess equivalent foundational knowledge.
- Participants should be able to use the CX-Programmer software for writing programs.

<u>Outlines</u>

- Automatic controller theory (ON, OFF, P, I, D, PID)
- High instruction command
  - Increment/Decrement command
  - MOVE Digit command
  - Mathematic command (BCD ADD/ SUB/ Function Block Programming)
  - Database command (SCL, PID)
- Analog control
  - Analog input/analog output
  - Using Analog input/analog output with PID command
- PLC Network communication
  - SFC Programming
  - PLC programming practice and system demonstration.

Duration: 3 Days (9.00 – 16.00) registration 8.30AM.

Cost: 6,000 / Person (Exclude VAT 7% and withholding tax 3%)

Participant: 10 persons

Demo Kits: CJ2M

FA5 : PLC ระดับที่ 1 ตามมาตรฐาน IEC 61131-3 (SYSMAC Studio)

PLC Level 1 (SYSMAC Studio)

The Basic PLC Usage Course with Sysmac Studio software introduces participants to the fundamentals of automated control systems using PLCs (Machine Controllers), specifically the NJ and NX models, as control devices. This course is suitable for beginners or those who wish to review and enhance their existing foundational knowledge. The course content covers the basic principles and usage of PLCs in the NJ and NX models.

Participants will be able to understand the differences between control systems using relay circuits and those using PLCs in the NJ and NX models. They will also be able to apply the knowledge gained to various industrial control applications and further develop their skills in programming PLCs in the NJ and NX models on their own.

Qualifications for Participants:

・Should have a basic understanding of electrical systems or work related to control systems, such as technicians, engineers, or interested individuals.

・Should possess basic computer skills.

Outlines

- Basic instruction
- Type of instruction and controller knowledge of PLC (NJ and NX)
- Basic programming of software SYSMAC Studio following IEC 61131-3
- Basic command of PLC NJ and NX
- Ladder diagram basic command and program control command
- Control sequence command (S, R, RS, SR, R_TRIG, F_TRIG)
- Timer/Counter command (TON, TOF, CTU, CTUID)
- Move command
- SHL and SHR command
- Special instruction
- Applied programming example
- ST Basic programming
- PLC Programming practice and demonstration

Duration: 3 Days (9.00 – 16.30) Registration 8.30 AM.

Cost: 6,000 / Person (Exclude VAT 7% and withholding tax 3%)

Participant: 15 persons

Demo Kits: NX1P