

PT. MITSUBISHI ELECTRIC INDONESIA (MEIN) Mitsubishi standard training courses

1) PLC BASIC (Q-PLC Programming Course.(GX-Developer or GX-Works2)

Target Trainee	Suitable for beginner or little experience in PLC. Trainee need to have WIN
	operation experience.
Training material	Q-PLC programming training text
Training Kit	Q-PLC training kit, Window base PC

	Day	Contents
		1. Basic of sequence PLC CPU
	9.00 to 16.00	2. Operation of GX Developer or GX Works
Day 1		3. Devices and parameter in PLC CPU
		4. Basic command-1: PLC, etc
		5. Programming exercise
		6. Basic command-2: MOV, Comparing, Calculation
Day 2	9.00 to 16.00	7. Programming exercise
		8. Functions of QCPU: Test function, online writing, commends etc)
		9. Application of special function module: A/D module and D/A module

2) PLC BASIC (FX-Series or L-Series)

Target Trainee	Suitable for beginner or little experience in PLC. Trainee need to have WIN operation experience.
Training material	FX or L -PLC programming training text
Training Kit	FX-PLC / L-PLC training kit, Window base PC

	Day	Contents
		1. Basic of sequence PLC CPU
	9.00 to 16.00	2. Operation of GX Developer or GX Works
Day 1		3. Devices and parameter in PLC CPU
		4. Basic command-1: PLC, etc
		5. Programming exercise
		6. Basic command-2: MOV, Comparing, Calculation
Day 2	9.00 to 16.00	7. Programming exercise
Day 2		8. Functions of F or L CPU: Test function, online writing, commends etc)
		9. Application of special function module: A/D module and D/A module

3) MELSECNET (Q-Melsecnet/H course)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent
	experience. Sound knowledge on WINDOW operation.
Training material	Net/H training manual
Training Kit	Q-PLC + Net/H training kit

Day		Contents
	Day 1 9.30 to 12.30	1. Feature of Q net/H
Day 1		2. Explanation of parameter, setting procedure
	13.30 to 17.00	3. Exercise I: Cyclic transmission
	9.30 to 12.30	4. Exercise II: Transient transmission
Day 2	1 1.5 .50 10 17 00	5. Exercise III: Routing function
		6. Exercise IV: Remote I/O network

4) SERVO POSITIONING (Positioning course: QD77MS)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent experience also with experience in servo system. Sound knowledge on WINDOW operation.
Training material	QD77MS training manuals
Training Kit	Q-PLC + QD77MS training kits

Day		Contents
		Basic of positioning and feature of QD77MS
Day 1	9.30 to 17.00	2. Explanation of data (parameter, HPR, positioning)
		3. Data setting and test run function
Doy 2	9.30 to 17.00	4. Explanation of sequence program
Day 2	9.30 10 17.00	5. Exercise on positioning.

5) CC-LINK (Q CC-Link Course)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent experience. Sound knowledge on WINDOW operation.
Training material	Q CC-Link training text
Training Kit	Q-PLC training kit + CC-Link, Window base PC

Day		Contents
	9.30 to 12.30	Feature of CC-Link, Remote Net mode
Day 1	9.30 10 12.30	Master and local communication
Day I	13.30 to 17.00	3. Remote I/O Net
	13.30 10 17.00	4. Inverter communication via CC-link

6) SERVO Qmotion CPU (Q-Motion Course)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent
rarget Trainee	experience. Sound knowledge on WINDOW operation.
Training material	A/Q-Motion training text
Training Kit	A/Q-motion (A171SH/Q172CPU) training kits, Window base PC

	Day	Contents
	9.30 to 12.30	Function of A-Motion controller, system configuration
Day 1	Day 1 9.30 to 12.30	Positioning parameter, servo parameter
	13.30 to 17.00	3. 2 axis linear interpolation, circular interpolation, continue interpolation
1 (121/)	9.30 to 12.30	4. Virtual mode programming
	13.30 to 17.00	5. Synchronous operation (roller, ball screw, cam etc)

7) HMI - Touchscreen (GOT2000 Course)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent experience. Sound knowledge on WINDOW operation.
Training material	GOT1000 Training manuals
Training Kit	Using simulation Q-PLC + GOT1000 for trainees exercise. 1 unit of GOT1000 unit will use for demo

Day		Contents
	9 30 10 17 30	Function and feature of GOT1000, system configuration
Day 1		2. Operation of GT-Designer
Day I		3. Explanation on drawing menu and drawing exercise
		4. Screen making, monitoring
	9.30 to 12.30	5. Exercise 1: touch key, lamp, data input, data display etc.
Day 2	1 3 30 10 17 110	6. Exercise 2: comment, alarm list, panel meter, graph etc.
		7. Other Functions

8) INVERTER (A700 inverter course)

Target Trainee	For person like to understand fundamental of inverter, maintenance personnel.
Training material	A700 user manual
Training Kit	FR-A700 inverter training kit

Day		Contents
	9.30 to 13.00	Basic of inverter.
	9.50 to 15.00	Explanation of parameter
Day 1		3. I/O interfacing, selection of speed etc
	13.00 to 17.00	4. Operation of training kit
		5. Troubleshooting, maintenance.

9) SERVO COURSE (MR-J4 series servo course)

Target Trainee	For person like to understand fundamental of servo system, maintenance personnel.
Training material	MR-J4 user manual
Training Kit	MR-J4 servo training kit

	Day	Contents
		Basic of servo, parameter Positioning control
Day 1	13.00 to 17.00	3. I/O interfacing4. Operation of training kit5. Troubleshooting, maintenance.

10) NETWORKING - (CC-Link IE course)

Target Trainee	Trainee should have completed Q-PLC programming course or equivalent experience. Sound knowledge on WINDOW operation.
Training material	Net/H training manual
Training Kit	Q-PLC + CC-Link IE training kit

Day		Contents
	9.30 to 12.30	1. Feature of Cclink I/E
Day 1		Explanation of parameter, setting procedure
	13.30 to 17.00	3. Exercise I: mapping networking
	9.30 to 12.30	4. Exercise II: Setup parameter & Wiring Networking
Day 2	1 13 30110 17 001	5. Exercise III: Programming Sample
		6. Exercise IV: Trouble shoot analysis