

OMRON



AUTOMATION TRAINING 2018

Advanced Industrial Automation

INTRODUCTION TO PLCs (2 DAYS)

- PLC System Components
- PLC System Configuration
- PLC Wiring
- Memory Matrix and Addressing
- Ladder Diagrams
- CX-Programmer Overview
- Program Development
- Maintenance and Troubleshooting
- Timers and Counters
- General Application Instructions

NJ AUTOMATION TRAINING (2 DAYS)

- Introduction to Sysmac Studio
- Basic PLC/PAC Programming
- Analogue Interfacing
- PID Control & Auto-tune
- Program Simulation
- Advance Programming
 - Function Block (FB)
 - Structured Text (ST)

FUNCTION BLOCK PROGRAMMING (1 DAY)

- Introduction to Function Blocks
- Creating Function Blocks
- Ladder Function Blocks
- Structured Text Function Blocks
- Using Omron's Function Block Library

TOUCH SCREEN PROGRAMMING (1/2 DAY)

- Programmable Terminal Touch Screen Programming.
- Separate Courses for NT or NS Screens

VISION SYSTEM BASIC COURSE (1 DAY)

- What is Vision?
- Selecting Lighting and Lens
- Configuration of Controller
- Measurement Tools
- Setting up Scenes
- Setting up Measurement Windows and Tolerance
- Application Examples

VISION SYSTEM ADVANCE COURSE (1 DAY)

- Position Compensation
- Output Selection
- Wiring and I/O Setup
- Communications
- Use of Multiple Cameras
- USB or SD card (Back up Data/Images)
- Application Examples

NETWORK COMMUNICATIONS (2 DAYS)

- General Network Theory
- Ethernet & Routing Tables
- Controller Link and Data Links
- DeviceNet

NJ – NX SAFETY TRAINING

- Introduction
- Safety Categories
- Wiring
- PLC open Programming
- Integration with Standard I/O & Automation

NJ MOTION TRAINING (2 DAYS)

- Kinematics
- Servo Sizing & Selection
- Drive Configuration
- PLC open Programming
- Motion Basics
- Advance Servo Control
- Application Examples

ADVANCE PLC PROGRAMMING (3 DAYS)

- Numbering Systems
- Memory Architecture and Addressing
- Timer/Counter Review
- Instruction Logic Including
 - General Instructions
 - Data Shifting & Movement
 - Data Conversion & Comparison
 - Arithmetic Instructions
 - Logic Instructions
 - Subroutines and Sequencing
- Introduction to Networks
- Analogue I/O

Omron Training Schedule 2018

Course	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Introduction to PLC's (2 days)												
Brisbane	22-23		12-13		14-15			6-7		8-9		3-4
Sydney	23-24			10-11			17-18			23-24		
Melbourne		15-16			9-10			9-10			7-8	
Advanced PLC Programming (3 days)												
Brisbane		5-7		3-5					3-5		5-7	
Sydney		13-15			22-24			21-23			20-22	
Melbourne			14-16			13-15			12-14			3-5
Touch Screen Programming (1/2 day)												
Brisbane	24		14		16			9		10		6
Sydney			13			19			25			
Melbourne		23			3				6			
Function Block Programming (1 day)												
Brisbane	25			6				8		11		5
Sydney				19					18			
Melbourne		20		6			6			12		
Network Communications (2 days)												
Brisbane	29-30		15-16						6-7		8-9	
Sydney			27-28				26-27					
Melbourne					17-18					18-19		
NJ Automation Training (2 days)												
Brisbane		12-13			21-22		9-10		10-11		19-20	
Sydney			19-20			25-26			10-11			10-11
Melbourne			5-6		21-22			13-14			12-13	
NJ Motion Training (2 days)												
Brisbane		15-16			24-25		12-13		13-14		22-23	
Sydney			21-22			27-28			12-13			12-13
Melbourne			7-8		23-24			15-16			14-15	
NJ – NX Safety Training (1 days)												
Brisbane		14			23		11		12		21	
Sydney			23			29			14			14
Melbourne			9		25			17			16	

For information about vision system training, custom, non-scheduled and product specific courses dates – please contact Omron 1300 766 766.

Training Course Pricing:

Course	Price (excluding GST)
Introduction to PLCs	\$900
Advanced PLC Programming	\$1,350
Touch Screen Programming	\$250
Function Block Programming	\$450
Network Communications	\$900
NJ Automation Training	\$990
NJ Motion Training	\$990
NJ – NX Safety Training	\$495
Vision System 1 day courses	Pricing available upon request

NOTE: Omron reserves the right to cancel scheduled courses if the need arises. At least 3 persons must be registered in order to run the course.

Omron Training Course Benefits

Omron’s proven hands-on training shortens the learning curve of that using industrial automation equipment for the first time, as well as for experienced technicians learning the advanced functionality of an upgraded system.

Our industry experienced instructors use a combination of proven teaching techniques and hands-on real world application exercises to deliver focused information during the course. Proficiency tests are conducted at the end of the course and an Omron certificate of training completion stands for the satisfactory demonstration of learned skills.

Sysmac Training:

Omron's Sysmac system is an entire automation & control platform, delivering new possibilities for innovation in production & machines.

- Manufacturers gain money benefits, from productivity & efficiency improvements.
- Machine builders gain value in better products, from increased performance, advanced functionality, & new capabilities.
- Systems integrators save time & money, from simpler engineering, faster development & programming, & simplified learning - one software environment for an entire system, one vendor for complete support.



Sysmac Training allows you to realize to the potential of this leading technology & gain a competitive edge. Take a positive step into the future.

Benefits of Omron training courses:

Gain understanding, familiarity, knowledge and practical skills in automation. These courses are designed around your needs and tailored to your skills - this will enable you to improve your productivity and performance.

Training Courses Create:

- **Efficient production process**
- **Less downtime**
- **Greater return on automation investment**
- **Lower operating costs**
- **Value for money - high quality training at affordable prices**

Customized and on-site PLC Courses:

On-site, custom and interstate courses may be arranged. Please don't hesitate to call and discuss the details of possible dates and course content.

PLC Course Format:

Every attendee receives personal attention as there are never more than six students per class.

Who Should Attend:

- **Engineers, electricians, technicians, maintenance staff, fitters and plant supervisors.**
- **Students attending the Advanced PLC programming course must have some basic knowledge of PLC programming. Knowledge of CX-Programmer is essential.**

Prerequisites:

All attendees should be familiar with Windows operating systems and basic computer keyboard skills.

Course Registration Form

Phone 1800 678 838 ... allow our customer service officers to assist you	Mail your booking form and payment to your nearest Omron office	Fax your course registration form to your nearest Omron Office	Enrol... NOW To Reserve YOUR Place	Each student receives: <ul style="list-style-type: none"> ● Individual use of Training Module ● Full set of reference notes ● Certificate on course completion. ● Morning and afternoon tea A full lunch is catered for all courses one day and over.
Organization _____ Address _____ Suburb _____ Postcode _____ Company Size Staff: <20 <input type="checkbox"/> 20-50 <input type="checkbox"/> 51-100 <input type="checkbox"/> 100+ <input type="checkbox"/> 500+ <input type="checkbox"/>				Discounts: Discounts may be given for group bookings.
Approving Manager _____ Position _____ Phone _____ Fax _____ E-mail _____				
Student: Mr/Mrs/Ms/Miss _____ Position _____ Mr/Mrs/Ms/Miss _____ Position _____ Mr/Mrs/Ms/Miss _____ Position _____ Mr/Mrs/Ms/Miss _____ Position _____				Cancellations & Transfers: Any booking cancelled within 5 days of course commencement will incur a 50% cancellation fee. If a booking is cancelled within 24 hours of course commencement or if the student fails to attend, no refund will be provided. Transfers will be allowed subject to vacancies.
Please tick location: Melbourne <input type="checkbox"/> Sydney <input type="checkbox"/> Brisbane <input type="checkbox"/> Course Name: _____ Course Date: _____				
How did you here about Omron's training courses? Internet <input type="checkbox"/> Distributor <input type="checkbox"/> Other (Specify): _____				
Payment Details:				Course Hours
Order Number: Please accept as payment my order number: _____ Cheque: I wish to pay by cheque: * <input type="checkbox"/> Fee enclosed: \$ _____ Credit Card: Please charge my: Bankcard <input type="checkbox"/> Mastercard <input type="checkbox"/> Visa <input type="checkbox"/> Number _____ CSV _____ Cardholder Name: _____ Signature: _____ Expiry Date: _____ / ____ / ____				Full day courses Start Lunch Finish 8:45am 12:30pm 4:30pm Half day courses Start 8:45am Finish 1:00pm

- Cheques should be made payable to Omron Electronics Pty Ltd and posted to the office where training is to be conducted.
- Payment is to be made before the course commences and within 7 days of an invoice date.