

AUTOMATION ACADEMY

A u t o m a t i o n S y s t e m s T r a i n i n g S p e c i a l i s t s

Course Title: GE / GE Fanuc 90-30 Maintenance Course

The GE Fanuc 90-30 Maintenance Course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with little or no experience of GE Fanuc systems to the different aspects associated with the operation and maintenance of GE Fanuc controllers and the programming software. This course is intended to give students the background knowledge and practical experience in working on a GE Fanuc system so that they have a good understanding of the system and have the ability to make small edits and make changes to program parameters.

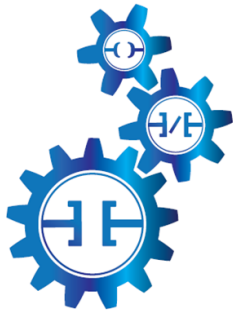
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

Course Objectives:

- ☒ To introduce students to the concepts, terminology and operation of GE Fanuc 90-30 Controllers.
- ☒ To recognise and understand the hardware associated with GE Fanuc 90-30 controllers.
- ☒ To recognise and understand what the system LED's indicate.
- ☒ To be able to open and understand the project structure of the GE Fanuc 90-30 program and to have the confidence to implement minor changes to the ladder program and register values.
- ☒ Understanding the use and operation of GE Fanuc 90-30 ladder instructions set.
- ☒ To be able to use the programming software to connect online to monitor and be able to use the search facilities to chase through the program to determine problems on plant.
- ☒ To understand the operation and terminology of GE Fanuc Genius communication links.
- ☒ To be able to locate and replace faulty modules by understanding and using the cpu diagnostics within the controller when an error is present and to be able to reset the fault using the software.
- ☒ To be able to create a backup copy of the GE Fanuc controllers program. To be able to restore a program back into the controller from a backup copy.

Course Content:

The hardware architecture and operation of GE Fanuc 90-30 controllers.
Understanding GE Fanuc I/O modules, their plant wiring and LED indicators.



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Addresses used in the GE Fanuc range of controllers.
First steps using the programming software.
Creating a training program to demonstrate plant programming examples.
Getting an online connection to the GE Fanuc controller, serial and/or Ethernet.
Downloading the user program to the GE Fanuc 90-30 controller.
Online monitoring and the GE Fanuc search facility.
Creating and using tables to monitor the GE Fanuc controller status.
An overview of the GE Fanuc ladder programming techniques used on plant programs.
A demonstration of simple program editing and modifying plant programs.
Reading the GE Fanuc controllers standard instruction set.
Programming examples including relay, timers, logic, maths, and compares.
Understanding and configuring higher level ladder instructions in the program.
Binary, Decimal and Hex numbering systems and their use in a GE Fanuc program.
Using and creating program documentation.
Using program documentation for fault finding purposes.
Analogue modules and the maths involved in analogue signal processing
The configuration and operation of GE Fanuc Genius communications
GE Fanuc controller fault and I/O messages and their meanings and how to clear them.

Customised training included in the course cost.

As part of this training course we will include custom application exercises for your own plant and processes, this value added option creates immediate payback for students on plant. It will have the benefit of the students becoming familiar with key areas of your PLC project(s) during the training course. This option does require the supply of your plant drawing and program listings at least 2 weeks prior to the course start date.

Course Duration: 3 Days

Documentation: GE Fanuc 90-30 Controller Training Manual.

Equipment per student: GE Fanuc 90-30 controller

Programming laptop

Plant simulator

We can incorporate extra modules into this training course to include more advanced options such as using a programmable communication module that allows the GE Fanuc controller to communicate as a Modbus master or slave. Please contact us for your exact requirements.

Web link: [GE/GE Fanuc 90-30 Maintenance Course](#)