Advanced 4-Axis Turning Course covering C & Y on Fanuc Control with ISO Codes & NC Guide

Dates: 25th - 27th July 2023

Location: IMR training facilities, Mullingar

Duration: 3 Day Course

Delivery: Face to Face Classroom using individual simulators

Contact: marketing@imr.ie

Register Interest

IRISH MANUFACTURING RESEARCH

MILLS CNC TRAINING ACADEMY

Course Aim

This is an advanced Fanuc milling course designed for people with some knowledge and experience of the machining process and CNC controls but who want to acquire the necessary skills to program multi-axis lathes including C&Y.

The course is aimed at operators and setters looking to acquire new and upgrade existing skills, and at adult learners with knowledge and experience of the machining process looking to make the step up to CNC Programming.

The course is suitable for customers with either Doosan multi-axis lathes or other manufacturers' Fanuc controlled machines with a similar configuration.

Day 1: Module 1 - Fanuc Turning ISO Code

1. Machine Layout, Setting C Axis Work Datums,
2. Engaging the C Axis and Driven Tools Tool Offsets.
3. Tool Offsets Setting & G98 & G99 Feed Rate Type
4. G83 Face Drilling Cycles & Using M98 Sub Routines
5. G85 & G84 Face Reaming & Tapping Cycles
6. G87 Side Drilling Cycles & Using M98 Sub Routines
7. G89 & G88 Side Reaming & Tapping Cycles
8. Introduction to Milling on Front Face with G41 & G42 Cutter Compensation

Day 2: Module 2 - Fanuc Turning ISO Code

1. Using Polar Co-Ordinate Interpolation G12.1 (G112)
2. Examples of Face Milling with Rules & Regulations Explained.
3. Introduction to Milling on Side of Component
4. G7.1 (G107) Using Cylindrical Interpolation.
5. Introduction of Y-Axis Machining with G17 Plane Selection.
6. Milling in X & Y Using G41 & G42 Cutter Compensation
7. Introduction of Y Axis Machining with G19 Plane Selection
8. Milling in Z & Y Using G41 & G42 Cutter Compensation

Day 3: Module 3 - Fanuc Turning NC Guide Conversational

1. Fixed Forms, Tool Data Base for X & Z direction Tools.
2. Billet Size, Start Menu, Cycles & End Menus.
3. Hole Machining Cycles on Front Face & Side
4. Pocket Machining on Front Face & Side Cycles.
5. Contouring on Front Face X & C with Side Z & C
6. Grooves on the Front Face & Side
7. Engraving on Front & Side
8. Back Up Data for Home & Work use

Learning Outcomes

At the end of the course, the participants will have acquired advanced knowledge of CNC programming and operation of CNC Precision lathes which have C & Y axis capabilities. They will also have developed an understanding of how to program live tooling in C & Y axis configuration, Fanuc controlled CNC Lathes.

Participants Profile

This course is designed for operators/programmers already competent in understanding the standard ISO codes for turning and requires upskilling and using the facility of the C & Y Axis on a lathe. The ideal candidates are already proficient in CNC late operation and should have a good foundation in ISO G–codes.

Certification / Awarding Body

CPD Engineers Ireland

Register Interest

**Limited to 8 participants*