Course Outline
Duration 4 days
Beneficial to programmers, operators and maintenance staff
Instructor led online demonstrations with practical exercises.
The language of the course is English

Prerequisites
Students must have experience using Microsoft Windows.
Each Student will require a computer with Internet connection.
Headset with microphone and webcam is preferable
RobotStudio installed preferably with premium or trial license.
Robotware 6 will also need to be installed.
RobotStudio download link

Subject areas
Safety instructions
Safe working practices
Emergency stops and recovery
Enabling device
Modes of operation and Safety interlocks
Brake release and Pinch points

System description
Robot and external mechanical units
Control system, Operators panel and FlexPendant
Start up and Shut down procedures

Program operation
Starting, stopping and stepwise program operation
The ‘Program editor’ and ‘Production’ windows
Manual and Automatic operation
Override speeds
Continuous & Cycle running modes
Debug menu and program reset and collision awareness

Jogging the robot using the joystick
Joint axis and linear jogging
Tool orientation
Coordinate systems
Jog speed and incremental positioning

Event messages and logs
Error identification

Programming RAPID
The program Editor
Routines and program flow
Move instructions (MoveJ, MoveL and MoveC)
Editing Speed and Zone data
Modifying positions
Saving Programs

Tool centre points
TCP theory and definition

Work object coordinates
Workobject theory and definition

Logical instructions
Digital Inputs (WaitDI, WaitUntil)
Digital Outputs (Set, Reset, SetDO)
Waiting for time

Decision making instructions
Compact IF, IF Then…
While
Test

Working with numbers
Increment, Decrement, Clear
Assigning a value

FlexPendant messaging instructions
TPWrite, TPERase, TPShow, TPRedNum, TPRedFK

Evaluating cycle times
Clock data, clock instructions and clock reading function

Task memory structure
Program and System Modules
Backup and Restore

Objectives
On completion, participants will be able to perform:

Safe program operation
FlexPendant operation
Jog the robot with the Joystick
RAPID programming, editing, testing and reset
Appreciation of basic program structure and flow
Backup and Restore of system information