COURSE : CNC TURN-MILL CENTRE - PROGRAMMING & OPERATION
(FANUC Oi-TB)

DURATION : TWO WEEKS

COURSE CONTENTS : THEORY

- CNC Machines working principles.
- Features of CNC System & Elements of CNC Machines
- Concept of CNC Programming
- Programming with basic ‘G’ Codes & ‘M’ Codes
- Different co-ordinate systems
- Measurement of Zero offsets
- Part program of Turning- External features and Internal features using built in Cycles
- Part programming of Milling profile with ‘C’ Axis
- Selection of Tools, Speed, Feed & Depth of cut

PRACTICALS : Hands on experience on

- Windows based CNC Simulator.
- Basic Machine Operations
- Measurement of Zero offsets.
- Editing of part programs
- Proving selected programs & Machining of Components

EQUIPMENT PROFILE :

- Turn Mill Centre, HMT make, Model : TMC-20 with control Fanuc Oi-TB
- Keller - Symplus Soft ware for Simulation
COURSE : CNC TURN-MILL CENTRE - PROGRAMMING & OPERATION
(Sinumerik 802D sl)

DURATION : TWO WEEKS

COURSE CONTENTS : THEORY

- CNC Machines working principles.
- Features of CNC System & Elements of CNC Machines
- Concept of CNC Programming
- Programming with basic ‘G’ Codes & ‘M’ Codes
- Different co-ordinate systems
- Measurement of Zero offsets
- Part program of Turning- External features and Internal features using built in Cycles
- Part programming of Milling profile with ‘C’ Axis
- Selection of Tools, Speed, Feed & Depth of cut

PRACTICALS :

- Hands on experience on Windows based CNC Simulator.
- Basic Machine Operations
- Measurement of Zero offsets.
- Editing of part programs
- Proving selected programs & Machining of Components

EQUIPMENT PROFILE :

- Turn Mill Centre, ACE Designers make, Model : LT-2LM500MC with control Siemens Sinumerik 802D sl
- Keller - Symplus Soft ware for Simulation
COURSES : CNC TURNING - PROGRAMMING & OPERATION
(Sinumerik 810T)

DURATION : TWO WEEKS EACH

COURSE CONTENTS : THEORY

- CNC Machines working principles.
- Features of CNC System & Elements of CNC Machines
- Concept of CNC Programming
- Programming with basic ‘G’ Codes & ‘M’ Codes
- Different co-ordinate systems
- Measurement of Zero offsets
- Part program of Turning with canned cycles
- Subroutine programming
- Selection of Tools, Speed, Feed & Depth of cut

PRACTICALS : Hands on experience on

- Windows based CNC Simulator.
- Basic Machine Operations
- Measurement of Zero offsets.
- Editing of part programs
- Proving selected programs & Machining of Components

EQUIPMENT PROFILE :

- Turning Centre, Emco make, Model : emcoturn 340 with control Siemens Sinumerik 810 T
- Keller - Symplus Soft ware for Simulation
COURSES : CNC MILLING - PROGRAMMING & OPERATION
(Sinumerik 810M)

DURATION : TWO WEEKS

COURSE CONTENTS : THEORY

- CNC Machines working principles.
- Features of CNC System & Elements of CNC Machines
- Concept of CNC Programming
- Programming with basic ‘G’ Codes & ‘M’ Codes
- Different co-ordinate systems
- Measurement of Zero offsets
- Part program of Milling with cutter radius compensation
- Selection of Tools, Speed, Feed & Depth of cut
- Subroutine programming & Canned cycles
- Editing of part programs
- Proving selected programs & Machining of Components

PRACTICALS : Hands on experience on

- Windows based CNC Simulator.
- Basic Machine Operations
- Measurement of Zero offsets.
- Editing of part programs
- Proving selected programs & Machining of Components

EQUIPMENT PROFILE :

- Vertical Machining Centre, Emco make, Model : emco VMC-300 with control Siemens Sinumerik 810 M
- Keller - Symplus Soft ware for Simulation
COURSES : ADVANCED CNC MILLING - PROGRAMMING & OPERATION  
(Fanuc OM)  
DURATION : TWO WEEKS  
COURSE CONTENTS : THEORY  
- CNC Machines working principles.  
- Features of CNC System & Elements of CNC Machines  
- Concept of CNC Programming  
- Preparatory and Miscellaneous Functions / Codes  
- Different co-ordinate systems  
- Measurement of Zero offsets  
- Part program of Milling for linear & Circular interpolation with cutter radius compensation  
- Selection of Tools, Speed, Feed & Depth of cut  
- Subroutine programming, Fixed cycles  
- Programming – Scaling, Rotation, Mirroring, Helical interpolation, Thread milling & Cylindrical interpolation  
- Macro programming  
- Editing & Proving the part program  
  
PRACTICALS : Hands on experience on  
- Windows based CNC Simulator.  
- Basic Machine Operations  
- Measurement of Zero offsets.  
- Editing of part programs  
- Proving selected programs & Machining of Components  
  
EQUIPMENT PROFILE :  
- Vertical Machining Centre, HMT make, Model : VMC-500 with control Fanuc OM  
- Keller - Symplus Soft ware for Simulation