

## **MFPC3005 COMPUTER AIDED DESIGN AND MANUFACTURING (CAD / CAM) (3-0-0)**

### **Module - I: (08 Hours)**

Fundamentals of CAD: The design process, applications of computer for design, creating the Manufacturing, Database, The design workstation, Graphical Terminal, Operator input Devices, Plotters and other devices, the CPU secondary storage.

### **Module – II: (08 Hours)**

Computer graphics Software and Database: Configuration, Graphics Packages, Constructing the Geometry, transformations, Database structure and content, wire frame versus solid modeling.

### **Module – III: (08 Hours)**

CAM – Introduction, Numerical Control and NC Part Programming: NC Coordinate system, NC motion control system, Economics of NC, Manual and Computer Aid Programming, the APT language, NC programming with interactive graphics.

### **Module – IV: (08 Hours)**

Problems with conventional NC, NC technology: CNC, DNC combined DNC/CNC system, Adopter control manufacturing systems.

### **Module – V: (08 Hours)**

Computer Integrated manufacturing system, Machine Tools and related Equipment, Materials Handling and Storage system, computer system.

### **Text Book(s):**

1. Computer Aided design and Manufacture, Grover M.P.Simmers, E.W. Prentice Hall
2. CAD/CAM/CIM, P.Radhakrishnan&Subramanyam, Willey Eastern Limited.
3. Principles of Computer Aided Design and Manufacturing / FaridAmirouche / Pearson.