

## **COMPUTER AIDED DESIGN**

### Introduction:

The nature and role of design, the nature of CAD, type of CAD system, concept of integrated CAD benefits of CAD, the price of CAD, system, origin of CAD, applications of CAD.

### Computer aided design system hardware:

Introduction graphics input devices as light pens, analog devices, keyboard devices etc. graphics display devices as CRT displays, plasma panel display etc. graphics output devices as pen plotters, electrostatic plotters other, graphics output devices and modes of their operation , CAD system configuration .

### Computer aided design system software:

Introduction operating system, the overlay graphics systems, graphics database handling and structure, operating features, symbols, macros, editing facility, data selection , graphics transformation plotting, graphics standards as GKS and CORE, GKS 3-D and PHIGS, IGIS others graphics standards.

### Transformation systems:

Display, windowing and clipping, two dimensional transformation, three dimensional transformation, linear transformation, display files of three dimensional data, visualization of three dimensional data, eye co-ordinator system, joystick function, distortion.

### Use of micro computers in CAD system:

Microcomputer systems, CAD system based on microcomputers, choice of microcomputer system by considering microprocessor, primary memory, backup storage, communication system, software for CAD system.

Computer aided design of filters, printed & integrated circuits.