

COMPUTER GRAPHICS (3 – 1 – 0 : 4)

1. INTRODUCTION

Definition and scope of CAD/CAM .Introduction to Design process and role of computer in design process .Hardware and software in CAD/CAM application.

2. GEMETRICAL MODELING CURVES AND SURFACES

Representation, wire frame models ,Intrinsic and parametric representation ,analytic and paramedic curve and surface, Manipulations of curve and surface.

3. GEOMETRIC SOLID MODLING

Solid models Fundamentals of solid modeling .Half-spaces, Boundary representation (B-rep), Constructive solid geometry (CSG), sweep representation, analytic solid modeling, solid manipulations.

4. CAD/CAM DATA EXCHANGE FORMATES

5. INTRODUCTION TO DESIGN AND ENGINEERING APPLICATION.

6. INTRODUCTION TO REVERSE ENGINEERING TOOLS

Recommended books:

1. *Ibrahim Zeid, CAD/CAM, Tata Mc Graw hill, New Delhi.*
2. *J.Rooney and P.Steadman, Principals of computer aided design, pitman/open university, London.*
3. *Joe Rooney and Philip Steadman, computer aided design pitman/open university, London.*
4. *Glen Mallineuse , Computational concepts and methods , Kogan page ltd.london.*
5. *Daniel mallineuse, Computer Aided Graphical design, marcel dekker, New York.*
6. *p.Radhakrishna and C.P.Kothandaraman, Computer Graphics and design (cadd), Dhanpat Rai pup, New Delhi.*
7. *.C.S.Krishnamoorathy , J.S. Rajeev, Computer Aided design (Software and Analysis tools), Narosa pub house, New Delhi.*