

AMLT19 COMPUTER AIDED ENGINEERING GRAPHICS

UNIT-1 INTRODUCTION TO DESIGN

- 1.1 Design procedure,
- 1.2 Modeling of the design,
- 1.3 Engineering design and analysis,
- 1.4 Evaluation of prototype through simulation and testing,
- 1.5 Drafting & design documentation.
- 1.6 Concepts of Limits,
- 1.7 Fits & tollerances.

UNIT-2 INTRODUCTION TO CAD

- 2.1 Reasons and application of CAD systems,
- 2.2 Geometric modeling,
- 2.3 Benefits of CAD,
- 2.4 Limitations of CAD,
- 2.5 Hardware of CAD systems,
- 2.6 Concepts and application of FEM in footwear,
- 2.7 Geometrical tollerances,
- 2.8 Computer Hardware & Software:
- 2.9 Interactive display devices,
- 2.10 CRT principle, DVST, Raster scan,
- 2.11 Vector refresh, Flat screen,
- 2.12 Plasma Senun, LCD, Input devices.

UNIT-3 DIGITALIZATION

- 3.1 2-D & 3D co- ordinate extraction,
- 3.2 Principles of digital to analog conversion,
- 3.3 Digital input/ output processing systems.

UNIT-4 IMAGE PROCESSING

- 4.1 Principle of strategies for collection data for imaging,
- 4.2 Data reduction and processing techniques with special reference to footwear design.

Reference Books:

1. Computer Graphics And Design - P. Radhakrishnan & C. P. Kothandaraman
2. Computer Graphics - Zhigang Xiang & Roy Palstock
3. Auto CAD for Dummies - Bud Smith