NPTEL Video Course - Mechanical Engineering - Computer Aided Design and Manufacturing

Subject Co-ordinator - Prof. P.V. Madhusudan Rao, Prof. Anoop Chawla

Co-ordinating Institute - IIT - Delhi

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - An Introduction to CAD
Lecture 2 - Input Output Devices, Raster Graphics
Lecture 3 - Raster Graphics - I
Lecture 4 - Raster Graphics - II
Lecture 5 - Polygon Filling
Lecture 6 - Windowing and Clipping
Lecture 7 - Clipping of Polygons
Lecture 8 - 2D Transformations
Lecture 9 - 3D Transformations and Projection
Lecture 10 - Perspective Projections
Lecture 11 - Projections and Hidden Surface Removal
Lecture 12 - Hidden Surface Removal
Lecture 13 - Hidden Surface Removal
Lecture 14- Hidden Surface Removal
Lecture 15 - Finite Element Method
Lecture 16 - Galerkin's Approach
Lecture 17 - Galerkin's Method
Lecture 18 - 1D Finite Element Problems
Lecture 19 - 1D Finite Element Problems
Lecture 20 - FE Problems
Lecture 21 - 1D - FE Problems
Lecture 22 - Penalty Approach and Multi Point Boundary
Lecture 23 - Quadratic Shape Functions
Lecture 24 - 2D - FE Problems
Lecture 25 - 2D - FE Problems (Continued.)
Lecture 26 - 3D - FE Problems
Lecture 27 - 3D - Tetrahedral and 2D - Quadrilateral Element
Lecture 28 - Mesh Preparation
Lecture 29 - Modeling of Curves

Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Modeling of Curves
Lecture 31 - Modeling of Curves
Lecture 32 - Modeling of B-Spline Curves
Lecture 33 - Modeling of B-spline Curves
Lecture 34 - Surface Modeling
Lecture 35 - Surface Modeling
Lecture 36 - Display of Curves and Surfaces
Lecture 37 - Solid Modeling
Lecture 38 - Solid Modeling
Lecture 39 - Solid Modeling Using Octrees
Lecture 40 - (Lecture Missing)
Lecture 41 - Computer Aided Design
Lecture 42 - Computer Aided Manufacturing
Lecture 43 - What is CAD/CAM
Lecture 44 - An Overview of Geometric Modeling
Lecture 45 - Parametric Cubic Curve
Lecture 46 - Parametric Bezier Curve
Lecture 47 - B-Spline Curve
Lecture 48 - Parametric Surfaces - Part-1
Lecture 49 - Parametric Surfaces - Part-2
Lecture 50 - Solid Modeling
Lecture 51 - Geometric & Product Data Exchange
Lecture 52 - Reverse Engineering
```

Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in