

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Aerospace Engineering - NOC:Smart Structures

Subject Co-ordinator - Prof. Mohammed Rabiun Sunny

Co-ordinating Institute - IIT - Kharagpur

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

- Lecture 1 - Introduction to Smart Structures (Continued...)
- Lecture 2 - Introduction to Smart Structures (Continued...)
- Lecture 3 - Introduction to Smart Structures (Continued...)
- Lecture 4 - Introduction to Piezoelectric Materials
- Lecture 5 - Introduction to Piezoelectric Materials (Continued...)
- Lecture 6 - Mathematical Preliminaries
- Lecture 7 - 3D Constitutive Modeling of Piezoelectric Materials - 1
- Lecture 8 - 3D Constitutive Modeling of Piezoelectric Materials - 2
- Lecture 9 - 3D Constitutive Modeling of Piezoelectric Materials - 3
- Lecture 10 - 3D Constitutive Modeling of Piezoelectric Materials - 4
- Lecture 11 - Piezoelectric Sensors and Actuators
- Lecture 12 - Numerical Problems and Solutions
- Lecture 13 - Induced Strain Actuation - Static Analysis
- Lecture 14 - Induced Strain Actuation - Static Analysis (Continued...)
- Lecture 15 - Induced Strain Actuation - Static Analysis
- Lecture 16 - Induced Strain Actuation - Static Analysis (Continued...)
- Lecture 17 - Induced Strain Actuation - Static Analysis (Continued...)
- Lecture 18 - Induced Strain Actuation - Static Analysis - Numerical Examples
- Lecture 19 - Introduction to Energy Principles for Structural Analysis
- Lecture 20 - Introduction to Energy Principles for Structural Analysis (Continued...)
- Lecture 21 - Static Analysis of beam for Induced Strain Actuation using Energy Principles
- Lecture 22 - Static Analysis of beam for Induced Strain Actuation using Energy Principles (Continued...)
- Lecture 23 - Static Analysis of beam for Induced Strain Actuation using Energy Principles (Continued...)
- Lecture 24 - Static Analysis of beam for Induced strain Actuation using Energy Principles Numerical
- Lecture 25 - Dynamic Analysis of Beam for Induced Strain Actuation Using Energy Principle
- Lecture 26 - Dynamic Analysis of Beam for Induced Strain Actuation Using (Continued...)
- Lecture 27 - Energy Harvesting and Vibration Control
- Lecture 28 - Energy Harvesting and Vibration Control (Continued...)
- Lecture 29 - Solution of Coupled Linear Ordinary Differential Equations

Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

<http://www.digimat.in>

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Introduction to Fibre Reinforced Plastic Composites
- Lecture 31 - Constitutive Relation of Unidirectional FRP Composite Ply
- Lecture 32 - Constitutive Relation of Unidirectional FRP Composite Ply (Continued...)
- Lecture 33 - Constitutive Relation of Unidirectional FRP Composite Ply (Continued...)
- Lecture 34 - Mechanics of FRP Composite Laminate Numerical Examples
- Lecture 35 - Mechanics of FRP Composite Laminate Numerical Examples (Continued...)
- Lecture 36 - Analysis of composite laminate with piezoelectric patches (Continued...)
- Lecture 37 - Analysis of composite laminate with piezoelectric patches (Continued...)
- Lecture 38 - Analysis of composite laminate with piezoelectric patches (Continued...)
- Lecture 39 - Analysis of composite laminate with piezoelectric patches (Continued...)
- Lecture 40 - Analysis of composite laminate with piezoelectric patches - computer programming
- Lecture 41 - Introduction to Shape Memory Alloys
- Lecture 42 - Temperature and Stress Dependent Phase Transformation Modeling
- Lecture 43 - Temperature and Stress Dependent Phase Transformation Modeling (Continued...)
- Lecture 44 - Stress-strain Curve at Low Temperature, Pseudo elasticity Two Way Shape Memory Effect
- Lecture 45 - Constitutive Relations of Shape Memory Alloys
- Lecture 46 - Constitutive Relations of Shape Memory Alloys (Continued...)
- Lecture 47 - Constitutive Relations of Shape Memory Alloys (Continued...)
- Lecture 48 - Constitutive Relations of Shape Memory Alloys (Continued...)
- Lecture 49 - Constitutive Relations of Shape Memory Alloys (Continued...)
- Lecture 50 - Finite Element Formulation of Euler - Bernoulli Beam
- Lecture 51 - Finite Element Formulation of Euler - Bernoulli Beam (Continued...)
- Lecture 52 - Analysis of a Beam with Shape Memory Alloy Wire
- Lecture 53 - Analysis of a Beam with Shape Memory Alloy Wire (Continued...)
- Lecture 54 - Introduction to Electro and Magneto Rheological Fluids
- Lecture 55 - Analysis of Electro and Magneto Rheological Fluid Flow
- Lecture 56 - Analysis of Electro and Magneto Rheological Fluid Flow (Continued...)
- Lecture 57 - Analysis of Electro and Magneto Rheological Fluid Flow (Continued...)
- Lecture 58 - Analysis of Electro and Magneto Rheological Fluid Flow (Continued...)
- Lecture 59 - Analysis of Electro and Magneto Rheological Fluid Flow
- Lecture 60 - Analysis of Electro and Magneto Rheological Fluid Flow (Continued...)
- Lecture 61 - Analysis of Electro and Magneto Rheological Fluid Flow (Continued...)
- Lecture 62 - Analysis of a Beam with ER/MR Fluid Layer