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

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NPTEL Video Course - Mechanical Engineering - NOC: Principles of Vibration Control
Subject Co-ordinator - Prof. Bishakh Bhattacharya
Co-ordinating Institute - IIT - Kanpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Vibration control
Lecture 2 - Strategies and Steps in Vibration Control
Lecture 3 - Strategies, Active control, Detuning and Decoupling
Lecture 4 - Viscous damping model
Lecture 5 - Coulomb and Hysteretic damping model
Lecture 6 - Energy Dissipation in Structural Materials
Lecture 7 - Material Selection Criterion against Damping
Lecture 8 - Design for Enhanced Material Damping
Lecture 9 - Linear Viscoelastic Materials and Models
Lecture 10 - Maxwell and 3-Parameter Models
Lecture 11 - Complex modulus and Applications of VEM
Lecture 12 - Basics of Dynamic Vibration Absorber
Lecture 13 - Modelling of Dynamic Vibration Absorber
Lecture 14 - Proof mass Actuator
Lecture 15 - Springs for Vibration Isolation
Lecture 16 - Introduction to Active Vibration Control
Lecture 17 - Basics of Classical Control System
Lecture 18 - Basics of State Space Control
Lecture 19 - Controllability and Observability of System
Lecture 20 - Full State Feedback Control
Lecture 21 - SMSS Laboratory Demonstration
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