

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

NPTEL Video Course - Civil Engineering - NOC:Stability of Structures

Subject Co-ordinator - Prof. Sudib Kumar Mishra

Co-ordinating Institute - IIT Kanpur

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

- Lecture 1 - Introduction to Stability of Structures
- Lecture 2 - Energy Approach for Structures with Two Degrees of Freedom
- Lecture 3 - Stable Symmetric Bifurcation Behavior
- Lecture 4 - Bifurcation Stability: Symmetric Unstable and Asymmetric Mixed Paths
- Lecture 5 - Stability Behaviour of the von Mises Truss
- Lecture 6 - Model Interaction and Bergan's Truss
- Lecture 7 - Beam-column System and Response Amplification
- Lecture 8 - Effect of Shear Deformation on Beam-Column System and Elastica
- Lecture 9 - Torsional-Flexural Buckling Of Columns
- Lecture 10 - Lateral Buckling Of Beam
- Lecture 11 - Matrix Method For Stability Analysis
- Lecture 12 - FEM Solved Example and Review Of Plate Bending
- Lecture 13 - Buckling Plate
- Lecture 14 - Shear Buckling of Plate
- Lecture 15 - Post Critical Analysis of Plate
- Lecture 16 - Eigen Buckling Analysis of Frame and Dynamic Stability
- Lecture 17 - Column Under Follower Force
- Lecture 18 - Column Under Pulsating Load
- Lecture 19 - Aerodynamic Instability Analysis of Tacoma Bridge
- Lecture 20 - Flutter Instability Analysis and Noise Stabilization of System
- Lecture 21 - Lyapunov stability and Chaotic system
- Lecture 22 - Stability analysis of shell
- Lecture 23 - Donnell Equation for Cylindrical Shell
- Lecture 24 - Buckling of Cylindrical Shell Under Various Loading Condition
- Lecture 25 - Post Critical Analysis of Cylindrical Shell

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