NPTEL Video Course - Mechanical Engineering - NOC:Introduction to Mechanical Vibration

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

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Lecture 2 - Lesson 2 - Addition of two harmonic motions and beat phenomenon
Lecture 3 - Lesson 3 - Fourier series and harmonic analysis
Lecture 4 - Lesson 4 - Vibration analysis procedure
Lecture 5 - Lesson 5 - Numerical problems
Lecture 6 - Lesson 1 - Undamped free vibration
Lecture 7 - Lesson 2 - Energy method
Lecture 8 - Lesson 3 - Damped free vibration
Lecture 9 - Lesson 4 - Viscous damped systems and logarithmic decrement
Lecture 10 - Lesson 5 - Coulomb damping
Lecture 11 - Lesson 1 - Harmonic excitations
Lecture 12 - Lesson 2 - Magnification factor and frequency response curve
Lecture 13 - Lesson 3 - Rotating unbalance
Lecture 14 - Lesson 4 - Excitation of the support
Lecture 15 - Lesson 5 - Energy input and dissipation by viscous damping
Lecture 16 - Lesson 1 - Coulomb damping and equivalent viscous damping
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Lecture 18 - Lesson 3 - Vibration isolation and force transmissibility
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Lecture 23 - Lesson 3 - Accelerometer
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Lecture 25 - Lesson 5 - Phase distortion and frequency measurement
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Lecture 30 - Lesson 5 - Undamped forced vibration with harmonic excitation
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