

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

NPTEL Video Course - Basic Courses (Semester 1 and 2) - Physics I - Oscillations and Waves

Subject Co-ordinator - Prof. S. Bharadwaj

Co-ordinating Institute - IIT - Kharagpur

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

Lecture 1 - Simple Harmonic Oscillators  
Lecture 2 - Damped Oscillator - I  
Lecture 3 - Damped Oscillator - II  
Lecture 4 - Oscillator With External Forcing - I  
Lecture 5 - Oscillator With External Forcing  
Lecture 6 - Resonance  
Lecture 7 - Coupled Oscillations  
Lecture 8 - Sinusoidal Plane Waves - I  
Lecture 9 - Electromagnetic waves - I  
Lecture 10 - Electromagnetic Waves - II  
Lecture 11 - The Vector Nature of Electromagnetic Waves  
Lecture 12 - The Electromagnetic Spectrum  
Lecture 13 - The Electromagnetic Spectrum - II  
Lecture 14 - Interference - I  
Lecture 15 - Interference - II  
Lecture 16 - Interference - III  
Lecture 17 - Interference - IV  
Lecture 18 - Coherence  
Lecture 19 - Coherence  
Lecture 20 - Diffraction - I  
Lecture 21 - Diffraction - II  
Lecture 22 - Diffraction - III  
Lecture 23 - Diffraction - IV  
Lecture 24 - X-Ray Diffraction  
Lecture 25 - Beats  
Lecture 26 - The Wave Equation  
Lecture 27 - Solving the Wave Equation  
Lecture 28 - Waves  
Lecture 29 - Standing Waves

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

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- Lecture 30 - Standing Waves
- Lecture 31 - Polarization
- Lecture 32 - Compton Effect
- Lecture 33 - Wave - Particle Duality
- Lecture 34 - Wave - Particle Duality
- Lecture 35 - Probability Amplitude
- Lecture 36 - Probability
- Lecture 37 - Schrodinger Wave Equation
- Lecture 38 - Measurements
- Lecture 39 - Particle in a Potential
- Lecture 40 - Potential Well
- Lecture 41 - Potential Well
- Lecture 42 - Potential Well
- Lecture 43 - Quantum Tunneling
- Lecture 44 - Quantum Tunneling