

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

NPTEL Video Course - Mechanical Engineering - Advanced Gas Dynamics

Subject Co-ordinator - Dr. Rinku Mukherjee

Co-ordinating Institute - IIT - Madras

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

- Lecture 1 - Introduction to Gas Dynamics & Review of Basic Thermodynamics
- Lecture 2 - Review of Basic Thermodynamics Continued
- Lecture 3 - An introduction to Normal Shocks
- Lecture 4 - The Mach Number and Compressible Flow
- Lecture 5 - The relation of physical properties across a normal shock
- Lecture 6 - Normal Shock in a duct
- Lecture 7 - Example Problems in Normal Shocks
- Lecture 8 - An introduction to Oblique Shocks
- Lecture 9 - The relation of physical properties across an oblique shock
- Lecture 10 - Example Problems in Oblique Shocks
- Lecture 11 - Pressure - Deflection relationship of Shocks
- Lecture 12 - An introduction to Expansion waves
- Lecture 13 - Area - Mach Relationship
- Lecture 14 - Unsteady Shock Waves
- Lecture 15 - The Shock Tube
- Lecture 16 - A review of wave propagation
- Lecture 17 - Wave propagation
- Lecture 18 - Finite Wave Theory
- Lecture 19 - The Shock Tube
- Lecture 20 - The Method of Characteristics
- Lecture 21 - Application of The Method of Characteristics
- Lecture 22 - Application of The Method of Characteristics
- Lecture 23 - Flow over a Wavy wall
- Lecture 24 - Subsonic Flow over a Wavy wall
- Lecture 25 - Supersonic Flow over a Wavy wall
- Lecture 26 - Supersonic Flow past a 3D Cone
- Lecture 27 - Quasi 2D Flow - I
- Lecture 28 - Quasi 2D Flow - II
- Lecture 29 - Similarity Rules and Transformed Coordinate System

Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

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

- Lecture 30 - Critical Mach Number and Thin Airfoil Theory
- Lecture 31 - Example Problem using Thin Airfoil Theory
- Lecture 32 - Example Problems - 1
- Lecture 33 - Example Problems - 2
- Lecture 34 - Example Problems - 3
- Lecture 35 - Supersonic Flow past a 3D Cone at an angle of attack
- Lecture 36 - Supersonic Flow past a 3D Cone at an angle of attack
- Lecture 37 - Supersonic Flow past a 3D Cone at an angle of attack
- Lecture 38 - Supersonic Flow past a 3D Cone at an angle of attack
- Lecture 39 - Supersonic Flow past a 3D Cone at an angle of attack
- Lecture 40 - Supersonic Flow past a 3D Bluff Body at an angle of attack