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

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NPTEL Video Course - Mechanical Engineering - NOC: Concepts of Thermodynamics
Subject Co-ordinator - Prof. Aditya Bandopadhyay, Prof. Suman Chakraborty
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introductory Concepts
Lecture 2 - Properties of Pure Substances
Lecture 3 - Properties of Pure Substances (Continued...)
Lecture 4 - Introduction to Property Tables
Lecture 5 - Properties of Pure Substances
Lecture 6 - Properties of Pure Substances
Lecture 7 - Use of Computer as Means of Learning Thermodynamics
Lecture 8 - Properties of Pure Substances (Continued...)
Lecture 9 - Properties of Pure Substances Spring - Piston Problem
Lecture 10 - Heat and Work
Lecture 11 - Heat and Work
Lecture 12 - Heat and Work
Lecture 13 - Heat and Work
Lecture 14 - First Law of Thermodynamics for a Control Mass System
Lecture 15 - Enthalpy and Specific Heats
Lecture 16 - First Law for a Control Mass System
Lecture 17 - First Law for a Control Mass System
Lecture 18 - First Law for a Control Mass System
Lecture 19 - Control Volume Conservation Reynolds Transport Theorem
Lecture 20 - Control Volume Mass and Energy Balance
Lecture 21 - Supplementary Lecture
Lecture 22 - First Law for Steady State Steady Flow (SSSF) Process
Lecture 23 - First Law for SSSF Process
Lecture 24 - First Law for SSSF Process
Lecture 25 - First Law for SSSF Process
Lecture 26 - First Law for SSSF Process
Lecture 27 - Supplementary Lecture
Lecture 28 - First Law of Thermodynamics for Unsteady Processes in a Control Volume
Lecture 29 - First Law for Unsteady Problems - Examples
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Lecture 30 - First Law for Unsteady Problems - Examples (Continued...)
Lecture 31 - First Law for Unsteady Problems - Examples (Continued...)
Lecture 32 - Supplementary Lecture
Lecture 33 - Introduction to Second Law of Thermodynamics
Lecture 34 - Statements of the Second Law of Thermodynamics
Lecture 35 - Perpetual Motion Machines; Reversible and Irreversible Processes
Lecture 36 - Factors for Irreversibility and Introduction to Reversible Cycles
Lecture 37 - Carnot Theorem and Absolute Temperature Scale
Lecture 38 - Second Law
Lecture 39 - Clausius Inequality and Introduction to Entropy
Lecture 40 - Thermodynamic Property Relationships; Entropy change for Solids, Liquids and Ideal gases
Lecture 41 - Entropy balance for Reversible and Irreversible Processes
Lecture 42 - What is Entropy?
Lecture 43 - Entropy Change in closed system
Lecture 44 - Entropy Change in closed system
Lecture 45 - Supplementary Lecture
Lecture 46 - Supplementary Lecture
Lecture 47 - Entropy Transport for a flow process
Lecture 48 - Entropy Transport for flow process
Lecture 49 - Entropy Transport for flow process
Lecture 50 - Entropy Transport for flow process
Lecture 51 - Entropy Transport for flow process
Lecture 52 - Supplementary Lecture
Lecture 53 - Exergy (Availability)
Lecture 54 - Exergy (Availability) (Continued...)
Lecture 55 - Exergy Analysis
Lecture 56 - Exergy Analysis
Lecture 57 - Thermodynamic Relationships
Lecture 58 - Thermodynamic Relationships (Continued...)
Lecture 59 - Otto Cycle
Lecture 60 - Diesel Cycle
Lecture 61 - Example Problems
Lecture 62 - Brayton Cycle
Lecture 63 - Carnot Cycle and Rankine Cycle
Lecture 64 - Carnot Cycle and Rankine Cycle (Continued...)
Lecture 65 - Vapour Compression Refrigeration Cycle
Lecture 66 - Review of Learning Concepts
Lecture 67 - Supplementary Lecture
Lecture 68 - Supplementary Lecture
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