NPTEL Video Course - Mechanical Engineering - NOC:Thermal Engineering: Basic and Applied

Subject Co-ordinator - Prof. Pranab K. Mondal

Co-ordinating Institute - IIT - Guwahati

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

Lecture 30 - Mass flow rate of steam in nozzle, Critical Pressure Ratio
Lecture 31 - Critical Pressure Ratio and its Physical Significance
Lecture 32 - Nozzle efficiency and factors that affect the efficiency
Lecture 33 - Factors that affect the efficiency, problem on flow nozzle
Lecture 34 - Problem on flow nozzle
Lecture 35 - Steam Turbines: types and analysis using velocity triangles
Lecture 36 - Analysis of Impulse Steam Turbine
Lecture 37 - Compounding of Steam Turbine
Lecture 38 - Analysis of Reaction Steam Turbine
Lecture 39 - Problems on Steam Turbine
Lecture 40 - The Role of Condenser in Power Plant
Lecture 41 - Cooling Tower: Types and Analysis
Lecture 42 - Cooling Tower Performance
Lecture 43 - IC Engines, Classification, Different Parts, SI and CI Engines
Lecture 44 - Comparison of 2-stroke and 4-stroke Engines
Lecture 45 - Comparison of SI and CI Engines, Compression Ratio
Lecture 46 - Introduction to Carburettor and Regimes of Engine Operation
Lecture 47 - Regimes of Engine Operation and Simple Float Type Carburettor
Lecture 48 - Simple Float Type Carburettor and its Analysis
Lecture 49 - Mass Flow Rate of Fuel and limitations of Simple Float Type Carburettor
Lecture 50 - Limitations of Simple Float Type Carburettor, Problem on Carburettion
Lecture 51 - Engine Operating Characteristics: MEP and Indicator diagram
Lecture 52 - Performance Analysis parameters of IC Engine
Lecture 53 - Fuel of IC Engines
Lecture 54 - Alternative Fuels and Self Ignition Characteristics of Fuel: Octane Numner, Cetane Number
Lecture 55 - Thermodynamic Analysis of SI Engine
Lecture 56 - Thermodynamic Analysis of CI Engine
Lecture 57 - Numerical Problems on Engine Performance
Lecture 58 - Pressure-Crank angle diagram, Engine Efficiencies
Lecture 59 - Numerical Problems on SI and CI Engines
Lecture 60 - Vapour Compression Refrigeration Cycle and its analysis
Lecture 61 - Problems on Vapour Compression Refrigeration Cycle
Lecture 62 - Gas Turbine Units and Thermodynamic Cycles
Lecture 63 - Gas Compressor and Optimum Pressure Ratio
Lecture 64 - Compressor Efficiency and Multistage Compression with Intercooling
Lecture 65 - Gas Turbine Unit: Combined Cycle
Lecture 66 - Problems On Gas Turbine Cycle