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

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NPTEL Video Course - Physics - NOC: Upstream LNG Technology
Subject Co-ordinator - Prof. Pavitra Sandilya
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - Concentration
Lecture 3 - Sources and Process Overview of Natural Gas
Lecture 4 - Pure Component Phase Behavior
Lecture 5 - Mixture Phase Behavior
Lecture 6 - Phase Behaviour of Natural Gas
Lecture 7 - Dew Point and Bubble Point Calculations
Lecture 8 - Vapor Liquid Equilibrium
Lecture 9 - Problems on Vapor Pressure, Gibb's Phase Rule, Dew Point Bubble Point Temperatures
Lecture 10 - Thermophysical Properties of Natural Gas - I
Lecture 11 - Thermophysical Properties of Natural Gas - II
Lecture 12 - Thermodynamic and Chemical Properties
Lecture 13 - Combustion Properties
Lecture 14 - Flow in Natural Gas Systems
Lecture 15 - Flow Measurement In Natural Gas - I
Lecture 16 - Flow Measurement In Natural Gas - II
Lecture 17 - Temperature and Quality Measurement in Natural Gas Systems
Lecture 18 - Pressure measurement in natural gas systems
Lecture 19 - Tutorial on the estimation of thermophysical properties
Lecture 20 - Tutorial on the combustion and thermodynamic properties of natural gas
Lecture 21 - Tutorial on fluid mechanics
Lecture 22 - Tutorial on flow and pressure measurement in natural gas systems
Lecture 23 - Tutorial on temperature and quality measurement in natural gas
Lecture 24 - Heat transfer in natural gas systems
Lecture 25 - Tutorial on heat transfer in natural gas systems
Lecture 26 - Heat exchangers in natural gas systems
Lecture 27 - Analysis of heat exchangers in natural gas systems
Lecture 28 - Tutorial on heat exchanger analysis
Lecture 29 - Equillibrium vapour-liquid separation
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Lecture 30 - Equillibrium in multicomponent systems
Lecture 31 - Separation by distillation
Lecture 32 - Design of distillation column
Lecture 33 - Equillibrium fluid solid separation
Lecture 34 - Membrane separation in natural gas systems
Lecture 35 - Estimation of water content in natural gas
Lecture 36 - Multistage single component equillibrium separation
Lecture 37 - Tutorial on vapour liquid separation
Lecture 38 - Tutorial on ideal binary distillation
Lecture 39 - Tutorial on equillibrium gas- solid separation
Lecture 40 - Tutorial on membrane gas separation
Lecture 41 - Dehydration of natural gas
Lecture 42 - Natural gas Processing - hydrate removal
Lecture 43 - Acid gas removal in natural gas system - I
Lecture 44 - Acid gas removal in natural gas system - II
Lecture 45 - Nitrogen removal in natural gas system - I
Lecture 46 - Nitrogen removal in natural gas system - II
Lecture 47 - Compression in natural gas systems
Lecture 48 - Compressors used in natural gas systems
Lecture 49 - Tutorial on hydrate removal
Lecture 50 - Multicomponent distillation column design
Lecture 51 - Sulfur recovery in natural gas systems - I
Lecture 52 - Tutorial on compression
Lecture 53 - Pigging
Lecture 54 - Sulfur recovery in natural gas systems - II
Lecture 55 - Trace components in natural gas
Lecture 56 - Helium recovery, upgradation and purification
Lecture 57 - Fundamentals of absorption and stripping for natural gas processing
Lecture 58 - Tutorial on absorption and stripping
Lecture 59 - Gas liquid separation in natural gas systems - I
Lecture 60 - Gas liquid separation in natural gas systems - II
Lecture 61 - Tutorial on equillibrium in multicomponent systems
Lecture 62 - Tutorial on multicomponent distillation - I
Lecture 63 - Tutorial on multicomponent distillation - II
Lecture 64 - Pumps in natural gas systems - I
Lecture 65 - Pumps in natural gas systems - II
Lecture 66 - Pumps in natural gas systems - III
Lecture 67 - Tutorial on pumps - I
Lecture 68 - Tutorial on pumps - II
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## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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Lecture 69 - Cryogenic refrigeration and liquefaction in natural gas systems - I
Lecture 70 - Cryogenic refrigeration and liquefaction in natural gas systems - II
Lecture 71 - Tutorial on refrigeration - I
Lecture 72 - Tutorial on refrigeration - II
Lecture 73 - Cryogenic refrigeration and liquefaction in natural gas systems - III
Lecture 74 - Cryogenic refrigeration and liquefaction in natural gas systems - IV
Lecture 75 - Cryogenic refrigeration and liquefaction in natural gas systems - V
Lecture 76 - Tutorial on refrigeration - III
Lecture 77 - Tutorial on refrigeration and liquefaction - IV
Lecture 78 - Tutorial on refrigeration and liquefaction - V
Lecture 79 - Hydrocarbon recovery in natural gas system - I
Lecture 80 - Hydrocarbon recovery in natural gas system - II
Lecture 81 - Hydrocarbon recovery in natural gas system - III
Lecture 82 - Tutorial on hydrocarbon recovery in natural gas
Lecture 83 - Piping in natural gas systems - I
Lecture 84 - Piping in natural gas systems - II
Lecture 85 - Tutorial on piping in natural gas systems - I
Lecture 86 - Tutorial on piping in natural gas systems - II
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