

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

NPTEL Video Course - Chemical Engineering - NOC:Basic Principles and Calculations in Chemical Engineering

Subject Co-ordinator - Prof. Subrata Kumar Majumdar

Co-ordinating Institute - IIT - Guwahati

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

- Lecture 1 - Definition, History, Role of Chemical Engineer
- Lecture 2 - Basic Features of Chemical Process
- Lecture 3 - Unit systems and dimensions
- Lecture 4 - Variables and Properties of Material in System
- Lecture 5 - Pressure and Temperature of Flow Process
- Lecture 6 - Rate of Process
- Lecture 7 - Principles of material balance and calculation
- Lecture 8 - Material Balances on Processes with Recycle and Bypass
- Lecture 9 - Material balances on reactive processes
- Lecture 10 - Material balances on combustion reactions
- Lecture 11 - State Equation of Ideal Gas and Calculation
- Lecture 12 - State Equation of non-Ideal Gas and Calculation
- Lecture 13 - Phase equilibrium
- Lecture 14 - Equilibrium Laws, Humidity and Saturation
- Lecture 15 - Humidity, Saturation Psychrometric chart
- Lecture 16 - Process of phase change
- Lecture 17 - Principles of Energy
- Lecture 18 - Laws and properties of thermodynamics
- Lecture 19 - Standard Heat of Formation
- Lecture 20 - The mechanical energy balance
- Lecture 21 - Enthalpy balances without reaction
- Lecture 22 - Energy balance with multiple streams without reaction
- Lecture 23 - Energy balance on heat of solution
- Lecture 24 - Energy balance with heat of reaction
- Lecture 25 - Energy balance with heat of reaction (Continued...)
- Lecture 26 - Energy balance with heat of combustion
- Lecture 27 - Material balance of transient process
- Lecture 28 - Unsteady state energy balance
- Lecture 29 - Least Square Method Linear equation fitting

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 - Non-linear algebraic equation system
- Lecture 31 - Numerical Integration
- Lecture 32 - Process Degrees of Freedom
- Lecture 33 - Process Flowsheeting and codes
- Lecture 34 - Case Study
- Lecture 35 - Case Study