NPTEL Video Course - Chemical Engineering - NOC:Plant Design and Economics

Subject Co-ordinator - Prof. Debasis Sarkar

Co-ordinating Institute - IIT - Kharagpur

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

Lecture 30 - Hierarchical Approach to Process Synthesis - IV
Lecture 31 - Basic Reactor Principles
Lecture 32 - Reactor Synthesis for Complex Reactions by Attainable Region
Lecture 33 - Reactor Synthesis for Complex Reactions by Attainable Region
Lecture 34 - Reactor Synthesis for Complex Reactions by Attainable Region
Lecture 35 - General Procedure for Reactor Design and Cost Estimation
Lecture 36 - Introduction to Separation Systems
Lecture 37 - Selection Criteria for Separation Processes
Lecture 38 - Design of Multi-component Distillation Column
Lecture 39 - Design of Multi-component Distillation Column
Lecture 40 - Introduction to Sequencing of Ordinary Distillation Columns
Lecture 41 - Sequences for Simple Nonintegrated Distillation Columns
Lecture 42 - Distillation Sequencing using Columns with Sidestreams
Lecture 43 - Distillation Sequencing using Thermal Coupling
Lecture 44 - Azeotropic Distillation
Lecture 45 - Azeotropic Distillation Methods and Cost Estimation
Lecture 46 - Introduction to Pinch Technology
Lecture 47 - Composite Curves
Lecture 48 - The Problem Table Method
Lecture 49 - The Heat Recovery Pinch and The Grand Composite Curve
Lecture 50 - Heat Exchanger Network Design
Lecture 51 - Introduction
Lecture 52 - Fires and Explosions
Lecture 53 - Fires and Explosions
Lecture 54 - Toxic Release, Hazard Identification and MSDS
Lecture 55 - Inherently Safer Design
Lecture 56 - Optimality Criteria for Unconstrained Functions
Lecture 57 - Examples
Lecture 58 - Equality Constrained Problems
Lecture 59 - Linear Programming Problems
Lecture 60 - Batch Process Scheduling