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

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NPTEL Video Course - Chemical Engineering - Advanced Chemical Reaction Engineering (PG)
Subject Co-ordinator - Prof. H.S. Shankar
Co-ordinating Institute - IIT - Bombay
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Course Overview - I
Lecture 2 - Course Overview - II
Lecture 3 - Design Equations - I
Lecture 4 - Design Equations - Illustrative Examples
Lecture 5 - Design Equations - II
Lecture 6 - Illustrative Examples
Lecture 7 - Illustrative Examples
Lecture 8 - Multiple Reactions - II
Lecture 9 - Modelling Multiple Reactions in Soil Environment - III
Lecture 10 - Semi Continuous Reactor Operation
Lecture 11 - Catalyst Deactivation - I
Lecture 12 - Catalyst Deactivation - II
Lecture 13 - Illustrative Example
Lecture 14 - Energy Balance - I
Lecture 15 - Energy Balance - II
Lecture 16 - Reacting Fluids as Energy Carrier
Lecture 17 - Illustrative Example
Lecture 18 - Energy Balance - III
Lecture 19 - Energy Balance - IV
Lecture 20 - Energy Balance - V
Lecture 21 - Illustrative Example
Lecture 22 - Energy Balance - VI
Lecture 23 - Illustrative Example
Lecture 24 - Illustrative Example
Lecture 25 - Illustrative Example
Lecture 26 - Residence Time Distribution Methods
Lecture 27 - Residence Time Distribution Models
Lecture 28 - Shrinking core Gas-Solid reactions Model
Lecture 29 - Shrinking core Ash Diffusion Model & Combination of Resistances
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Lecture 30 - 1) Gas Solid Reactions Temperature Effects on Rate & Equilibria 2) Introduction to Population Balacture 31 - Illustrative Example

Lecture 32 - Population Balance Modelling - II

Lecture 33 - Population Balance Modelling - III

Lecture 34 - Illustrative Examples

Lecture 35 - Introduction to Environmental Reactions

Lecture 36 - Reaction Engineering Examples in Biochemical & Environmental Engineering

Lecture 37 - Illustrative Examples

Lecture 38 - Illustrative Examples

Lecture 39 - Oxygen Sag Analysis in Rivers

Lecture 40 - Illustrative Examples

Lecture 41 - Illustrative Example
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