

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

NPTEL Video Course - Chemical Engineering - NOC:Environmental Quality Monitoring and Analysis

Subject Co-ordinator - Dr. R. Ravi Krishna

Co-ordinating Institute - IIT - Madras

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

Lecture 1 - Introduction  
Lecture 2 - Chemicals of Concern  
Lecture 3 - Water Quality Screening Parameters  
Lecture 4 - Water Quality Parameters  
Lecture 5 - Air quality parameters; Sustainability  
Lecture 6 - PM - Particulate Matter  
Lecture 7 - Physical/Chemical properties of interest  
Lecture 8 - Partition Constants  
Lecture 9 - Soil-air partition constants  
Lecture 10 - Application/Example of Equilibrium Partitioning  
Lecture 11 - Introduction to Environmental Monitoring and Sampling  
Lecture 12 - Environmental Sampling  
Lecture 13 - Environmental Analysis  
Lecture 14 - Environmental Analysis  
Lecture 15 - Environmental Analysis of Organics in Water  
Lecture 16 - Environmental Analysis  
Lecture 17 - Tutorial  
Lecture 18 - Tutorial (Continued...)  
Lecture 19 - Analysis Methods - Introduction and Water Quality Parameters  
Lecture 20 - Analysis Methods - Water Quality Parameters  
Lecture 21 - Analysis Methods - Review of Standard Methods  
Lecture 22 - Analysis Methods - Organics in water  
Lecture 23 - Analysis Methods - Overall Methodology for Organics  
Lecture 24 - Analysis Methods - Chromatography Fundamentals  
Lecture 25 - Analysis Methods - Gas Chromatography  
Lecture 26 - Analysis Methods - Gas Chromatography (Mass Spectrometry)  
Lecture 27 - Analysis Methods - Liquid Chromatography  
Lecture 28 - Monitoring methods for Air - PM - Part 1  
Lecture 29 - Monitoring methods for Air - PM - Part 2

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

- Lecture 30 - Monitoring methods for Air - Vapor - Part 1
- Lecture 31 - Monitoring methods for Air - Vapor - Part 2
- Lecture 32 - Monitoring methods for Air - Vapor - Part 3
- Lecture 33 - Monitoring and Measurement of Microorganisms
- Lecture 34 - Transport of Pollutants - Introduction
- Lecture 35 - Transport of Pollutants - Box Models in Water
- Lecture 36 - Transport of Pollutants - Box Models in Air
- Lecture 37 - Transport of Pollutants - Dispersion
- Lecture 38 - Transport of Pollutants - Gaussian Dispersion Model
- Lecture 39 - Dispersion Model - Parameters - Part 1
- Lecture 40 - Dispersion Model - Parameters - Part 2
- Lecture 41 - Gaussian Dispersion Model
- Lecture 42 - Gaussian Dispersion Model - Example, Additional topics
- Lecture 43 - Regulatory Models
- Lecture 44 - Introduction to Interphase Mass Transfer
- Lecture 45 - Interphase mass transfer - Application to Environmental Interfaces
- Lecture 46 - Interphase mass transfer - Flux and mass transfer resistance
- Lecture 47 - Interphase mass transfer - Boundary Layer and Mass Transfer Coefficient
- Lecture 48 - Interphase mass transfer - Individual and Overall Mass Transfer Coefficients
- Lecture 49 - Overall Mass Transfer Coefficient
- Lecture 50 - Estimation of the Mass Transfer Coefficients
- Lecture 51 - Air-Water Exchange
- Lecture 52 - Evaporation from different surfaces
- Lecture 53 - Sediment-Water exchange
- Lecture 54 - Application of Interphase mass transfer
- Lecture 55 - Contamination of Sediments
- Lecture 56 - Release from Sediments
- Lecture 57 - Unsteady state release from sediments
- Lecture 58 - Other mechanisms of chemical release from sediments - Part 1
- Lecture 59 - Other mechanisms of chemical release from sediments - Part 2
- Lecture 60 - Soil - Air Transfer
- Lecture 61 - Remediation of contaminated sediments - Application of transport models