

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

NPTEL Video Course - Metallurgy and Material Science - NOC: Bulk Material Transport and Handling Systems

Subject Co-ordinator - Prof. Khanindra Pathak

Co-ordinating Institute - IIT - Kharagpur

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

- Lecture 1 - Classification of Mining and Bulk Solid Handling Systems
- Lecture 2 - Properties of bulk material vis-a-vis different bulk handling operations
- Lecture 3 - Fundamentals of BMH and Transport: Capacity and Productivity Concepts
- Lecture 4 - Bulk material handling in Processing plants: Crushing and Screening Flow Charts
- Lecture 5 - Introduction to Bulk Material Transport and Autonomous Vehicles
- Lecture 6 - Constructional Components: Trends of Developments
- Lecture 7 - Belt Conveyor Construction: Belting for Bulk Material Conveyor
- Lecture 8 - Idlers and Belt Cleaners
- Lecture 9 - Feeding and Discharging Devices
- Lecture 10 - Safety and Troubleshooting
- Lecture 11 - Size Selection and Power Calculation
- Lecture 12 - Principle of operations and applicability
- Lecture 13 - Basic Design Calculations
- Lecture 14 - Introduction to Pneumatic Conveying systems
- Lecture 15 - Design Calculations for Pneumatic Conveying
- Lecture 16 - Exercise with Basic Design Calculations
- Lecture 17 - Stackers and Reclaimers: Classification and Selection Criteria
- Lecture 18 - Stackers and Reclaimers: Comparison of Different Types
- Lecture 19 - Principles of Blending and Reclaiming
- Lecture 20 - Case studies of stacker and reclaimers application
- Lecture 21 - System Layout
- Lecture 22 - Introduction to Bin Bunker and Silo
- Lecture 23 - Introduction to Bunker
- Lecture 24 - Introduction to Silo
- Lecture 25 - Silo Failures and Maintenance
- Lecture 26 - Basics of Silo Design
- Lecture 27 - Feeder Selection and Design
- Lecture 28 - Crushers: Classification and selection
- Lecture 29 - Secondary Crushers

---

Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

<http://www.digimat.in>

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

---

- Lecture 30 - Screen: Classification and Selection
- Lecture 31 - Monitoring and Maintenance of Processing Plant Equipment
- Lecture 32 - Concentration and Separation
- Lecture 33 - Fine Size Classification: Desliming and Cycloning
- Lecture 34 - Froth Flotation Techniques, Magnetic Separation, Jigs and Thickeners
- Lecture 35 - Jigs and Thickeners
- Lecture 36 - Coal Washery Equipment and Practices
- Lecture 37 - Classification and Selection
- Lecture 38 - Crusher Selection and Application
- Lecture 39 - Off-Highway trucks and Haul Roads - 1
- Lecture 40 - Off-Highway trucks and Haul Roads - 2
- Lecture 41 - Recent Developments in Truck Transportation
- Lecture 42 - RopeCon Transportation
- Lecture 43 - Aerial Ropeways: Introduction
- Lecture 44 - Aerial Ropeways Calculation
- Lecture 45 - Pipe Conveyor Belt: Enclosed Material Transport
- Lecture 46 - Underground Mine Transport System
- Lecture 47 - Rope Haulage for Underground Mine Transport
- Lecture 48 - Main and Tail and Endless Rope Haulage
- Lecture 49 - Pit Top and Pit Bottom Layout
- Lecture 50 - Haulage calculation
- Lecture 51 - Locomotive
- Lecture 52 - Low Profile Dumper
- Lecture 53 - Load Haul Dumper
- Lecture 54 - Introduction to Cage and Skip Winding
- Lecture 55 - Winding Calculations
- Lecture 56 - Safety Aspects in Bulk Solid Handling and Transportation
- Lecture 57 - Safety Aspects in Bulk Solid Handling and Transportation
- Lecture 58 - Basic Introduction of Automatic Control
- Lecture 59 - Automating Bulk Solids Processes
- Lecture 60 - Online Monitoring