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

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NPTEL Video Course - Metallurgy and Material Science - NOC: Mine Closure and Sustainability Planning
Subject Co-ordinator - Prof. Khanindra Pathak
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to closure concept
Lecture 2 - Mine Closure Objectives and Regulatory Aspects
Lecture 3 - Mining Footprint and Regulatory Aspects
Lecture 4 - Mine Closure Costs and Financing Approaches
Lecture 5 - Decommissioning of Mines
Lecture 6 - Demolition Techniques
Lecture 7 - Post Closure Liabilities and Activities
Lecture 8 - Post Closure Community Concerns and Sustainable Development Plans
Lecture 9 - Closure oriented Resource Development-Post Mining Land Uses
Lecture 10 - Post mining site monitoring
Lecture 11 - Planning inputs, tools and techniques
Lecture 12 - Tools and Techniques for Closure Plan Development and Procedures
Lecture 13 - Closure Plan Development Procedures
Lecture 14 - Monitoring, Review and Feedback of Closure Plan Implementation-Closure Criteria
Lecture 15 - Failure Mode and Effect Analysis Framework for Mine Closure Planning
Lecture 16 - Multiple Accounts Analysis (MAA) for Assessment of Closure Alternatives
Lecture 17 - Provisioning of capital
Lecture 18 - Closure costs and Rehabilitation Costs
Lecture 19 - Finance and Accounting: Closure cost estimate
Lecture 20 - Closure Economics and Audit
Lecture 21 - Application of Remote Sensing for Mine Closure-Introduction
Lecture 22 - Remote Sensing Sensors
Lecture 23 - Remote Sensing media and sensors
Lecture 24 - Image Processing and Data Interpretation
Lecture 25 - GIS for Mine Closure: Mapping and Geo-Spatial Data Analysis
Lecture 26 - Integration of phase operations
Lecture 27 - Integration of Interdepartmental work and phase operations - Part 1
Lecture 28 - Integration of Interdepartmental work and phase operations - Part 2
Lecture 29 - Risk Analysis Techniques and Management
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Lecture 30 - Post Mine Closure Waste to Wealth Conversion Lecture 31 - CSR and EMP Integration Lecture 32 - Introduction to Asset Management Lecture 33 - Principle of Asset Management and Decommissioning of Assets for Site Restoration Lecture 34 - Brownfield Redevelopment and Value Addition to Assets Lecture 35 - Landform Design and Post Mining Asset Creation Lecture 36 - Concept of Sustainable Development and Mining industry Lecture 37 - Sustainability Measurement and Reporting Lecture 38 - Sustainability Measurement and Reporting (Continued...) Lecture 39 - Sustainable Mineral Industry Lecture 40 - Policy and Legislative Framework of Sustainability for SDG and Mine Closure Lecture 41 - Communicating sustainability performance Lecture 42 - Framework of Sustainability reporting Lecture 43 - Sustainable accounting Lecture 44 - Case studies on Sustainability initiatives in Mining Industry Lecture 45 - Data Analytics for Sustainability management Lecture 46 - Cleaner Production Based Closure Management Lecture 47 - Regenerative environment design for sustainable Mine Closure Lecture 48 - Reusable resource identification in post closure mine site Lecture 49 - Optimization of Residual Value of Assets Lecture 50 - Post Mining Site for Community wealth Lecture 51 - Management of water resources Lecture 52 - Soil Treatment and Revegetation Lecture 53 - Bio-diversity: Post Land reclamation and plantation Lecture 54 - Physical and Chemical Stability issues Lecture 55 - Economic Utilization of Post Mining Structures and assets Lecture 56 - Techniques for closing underground workings Lecture 57 - Application of Industry 4.0 for Mine Lecture 58 - Best mining practices for Sustainable mining - Case studies Lecture 59 - Stability Monitoring and Enhancing tools Lecture 60 - VR and AR Technology for Post Mining Mine site Visualization and Design