NPTEL Video Course - Architecture - NOC:Landscape Architecture and Site Planning - Basic Fundamentals Subject Co-ordinator - Prof. Uttam Kumar Bannerjee Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

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Lecture 1 - Overview
Lecture 2 - Introduction to Landscape
Lecture 3 - Categories and Materials in Landscape
Lecture 4 - Objective and Professional Scope of Landscape Design
Lecture 5 - Objective and Professional Scope of Landscape Design (Continued...)
Lecture 6 - Introduction to History of Landscape Design
Lecture 7 - Introduction to History of Landscape Design (Continued...)
Lecture 8 - Introduction to History of Landscape Design (Continued...)
Lecture 9 - Introduction to History of Landscape Design (Continued...)
Lecture 10 - Introduction to History of Landscape Design (Continued...)
Lecture 11 - Introduction to History of Landscape Design (Continued...)
Lecture 12 - Introduction to History of Landscape Design (Continued...)
Lecture 13
Lecture 14
Lecture 15
Lecture 16 - Behavioral Principle
Lecture 17 - Behavioral Principle (Continued...)
Lecture 18 - Behavioral Principle (Continued...)
Lecture 19 - Behavioral Principle (Continued...)
Lecture 20 - Behavioral Principle (Continued...)
Lecture 21
Lecture 22
Lecture 23
Lecture 24
Lecture 25
Lecture 26
Lecture 27
Lecture 28
Lecture 29
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Lecture 30

Lecture	31	-	Landform	Design	
Lecture	32	-	Landform	Design	(Continued)
Lecture	33	-	Landform	Design	(Continued)
Lecture	34	-	Landform	Design	(Continued)
Lecture	35	-	Landform	Design	(Continued)
Lecture	36	-	Planting	Design	
Lecture	37	-	Planting	Design	(Continued)
Lecture	38	-	Planting	Design	(Continued)
Lecture	39	-	Planting	Design	(Continued)
Lecture	40	-	Planting	Design	(Continued)

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NPTEL Video Course - Architecture - NOC: Architectural Conservation and Historic Preservation Subject Co-ordinator - Prof. Sanghamitra Basu Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction Lecture 2 - Introduction (Continued...) Lecture 3 - Need, Debate and Purpose Lecture 4 - Heritage Significance and Values Lecture 5 - Heritage Significance and Values (Continued...) Lecture 6 - Assessing Heritage Values and Significance Lecture 7 - Heritage Values and Significance (Continued...) Lecture 8 - Assessing Heritage Significance Concept and Process Lecture 9 - Assessing Heritage Significance Concept and Process (Continued...) Lecture 10 - Divergent Approaches for Managing and Rehabilitating Heritage Properties Lecture 11 - Divergent Approaches for Managing and Rehabilitating Heritage Properties Lecture 12 - Divergent Approaches for Managing and Rehabilitating Heritage Properties Lecture 13 - Ethics of Conservation Lecture 14 - Evolution of Heritage Conservation Lecture 15 - Evolution of Heritage Conservation (Continued...) Lecture 16 - World Heritage Sites - Part 1 Lecture 17 - World heritage Sites - Part 2 Lecture 18 - World Heritage Sites - Part 3 Lecture 19 - World Heritage Sites - Part 4 Lecture 20 - World Heritage Sites - Part 5 Lecture 21 - Causes of decay in cultural property - Part 1 Lecture 22 - Causes of decay - Part 2 Lecture 23 - Causes of decay - Part 3 Lecture 24 - Causes of decay - Part 4 Lecture 25 - Documenting heritage properties Lecture 26 - Documenting Heritage Properties Lecture 27 - Investigation and Conservation of Historic Structures Lecture 28 - Investigation and Conservation of Historic Structures Lecture 29 - Investigation and Conservation of Historic Structures

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Lecture 30 - Conservation of Historic Structures Lecture 31 - Conservation of Historic Structures Lecture 32 - Historic Cities and Heritage Areas Lecture 33 - Historic Cities and Heritage Areas (Continued...) Lecture 34 - Historic Cities and Heritage Areas (Continued...) Lecture 35 - Historic Cities and Heritage Areas (Continued...) Lecture 36 - Historic Cities and Heritage Zones - India Lecture 37 - Historic Areas and Heritage Zones - India (Continued...) Lecture 38 - New Buildings in Historic Settings Lecture 39 - Heritage Impact Assessment in Historic Settings Lecture 40 - Adaptive Reuse Lecture 41 - Legislative and Organizational Policies for India Lecture 42 - Heritage Regulations and Role of Voluntary Organisations Lecture 43 - Heritage Conservation - Issues and Potentials

NPTEL Video Course - Architecture - NOC:Architectural Acoustics Subject Co-ordinator - Prof. Sumana Gupta, Prof. Sankha Pratim Bhattacharya Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction and Historical Overview Lecture 2 - Introduction to Acoustical Physics Lecture 3 - Frequency and Octave Lecture 4 - Sound Pressure and Intensity Levels Lecture 5 - Near and Far Field Propagation and Loudness Lecture 6 - Room Acoustics - I Lecture 7 - Room Acoustics - II Lecture 8 - Indoor Acoustics, Reflection and Absorption Lecture 9 - Concept of Reverberation Lecture 10 - Application of Reverberation Time Lecture 11 - Introduction to Acoustical Absorbers Lecture 12 - Panel Absorbers and Resonators Lecture 13 - Absorption in spaces of different volumes Lecture 14 - Acoustical Absorbers Lecture 15 - Reverberation time and Intelligibility Lecture 16 - Acoustical Criteria and Space Design Lecture 17 - Acoustical Criteria and Space Design (Continued...) Lecture 18 - Acoustical Criteria and Space Design (Continued...) Lecture 19 - Acoustical Criteria and Space Design (Continued...) Lecture 20 - Acoustical Criteria and Space Design (Continued...) Lecture 21 - Introduction to Auditorium Design Lecture 22 - Introduction to Auditorium Design (Continued...) Lecture 23 - Introduction to Auditorium Design (Continued...) Lecture 24 - Introduction to Auditorium Design Balcony and ceiling design Lecture 25 - Introduction to Auditorium Design Lecture 26 - Electro Acoustics - I Lecture 27 - Electro Acoustics - II Lecture 28 - Meteorological conditions and propagation of sound Lecture 29 - Topography and sound propagation Historical contexts

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Lecture 30 - Open air Theatre considerations Lecture 31 - Air Borne Sound Transmission Lecture 32 - Air Borne Sound Transmission (Continued...) Lecture 33 - Air Borne Sound Transmission (Continued...) Lecture 34 - Structure Borne Sound Transmission Lecture 35 - Structure Borne Sound Transmission (Continued...) Lecture 36 - Environmental Acoustics - I Lecture 37 - Environmental Acoustics - II Lecture 38 - Urban Noise Control Lecture 39 - Urban Noise Control Lecture 40 - Urban Noise Control

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NPTEL Video Course - Architecture - NOC: Building Materials and Composites
Subject Co-ordinator - Prof. Sumana Gupta
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to the course
Lecture 2 - Clay products - 1
Lecture 3 - Clay products - 2
Lecture 4 - Stone
Lecture 5 - Stone (Continued...)
Lecture 6 - Introduction to wood
Lecture 7 - Wood
Lecture 8 - Defects of wood and Wood joinery
Lecture 9 - Engineered wood
Lecture 10 - Bamboo
Lecture 11 - Glass
Lecture 12 - Glass (Continued...)
Lecture 13 - Glass (Continued...)
Lecture 14 - Glass wall and glass insulation
Lecture 15 - Ceramic tiles and vitrified tiles
Lecture 16 - Introduction to concrete
Lecture 17 - Fine Aggregates
Lecture 18 - Coarse Aggregates
Lecture 19 - Cement
Lecture 20 - Water, Plasticizer admixture and tests
Lecture 21 - Introduction to prefabricated items
Lecture 22 - CMU, AAC and Pavement Blocks
Lecture 23 - Precast Wall Panels
Lecture 24 - Floor panels
Lecture 25 - Columns, foundation, ferro-cement
Lecture 26 - Introduction to metals
Lecture 27 - Ferrous Metals 1 - Cast and Wrought Iron
Lecture 28 - Ferrous metals 2 - Steel
Lecture 29 - Ferrous metals 2 - Reinforcement bars, Corrosion, Light Gauge Steel
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Lecture 30 - Non-ferrous metals Lecture 31 - Damp proofing Lecture 32 - Damp proofing methods and materials Lecture 33 - Thermal insulation and sound insulation Lecture 34 - Insulation, Bitumen and Gypsum Lecture 35 - Composites Lecture 36 - Paints Lecture 37 - Paints (Continued...) Lecture 38 - Paints (Continued...) Lecture 39 - Plastics Lecture 40 - Plastics (Continued...)

NPTEL Video Course - Architecture - NOC: Environmental Soil Chemistry Subject Co-ordinator - Prof. Somsubhra Chakraborty Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Evolution of Soil Chemistry Lecture 2 - Evolution of Soil Chemistry (Continued...) Lecture 3 - Evolution of Soil Chemistry (Continued...) Lecture 4 - Evolution of Soil Chemistry (Continued...) Lecture 5 - Evolution of Soil Chemistry (Continued...) Lecture 6 - Inorganic Soil Components Lecture 7 - Inorganic Soil Components (Continued...) Lecture 8 - Inorganic Soil Components (Continued...) Lecture 9 - Inorganic Soil Components (Continued...) Lecture 10 - Inorganic Soil Components (Continued...) Lecture 11 - Chemistry of Soil Organic Matter Lecture 12 - Chemistry of Soil Organic Matter (Continued...) Lecture 13 - Chemistry of Soil Organic Matter (Continued...) Lecture 14 - Chemistry of Soil Organic Matter (Continued...) Lecture 15 - Chemistry of Soil Organic Matter (Continued...) Lecture 16 - Soil Solution-Solid Phase Equilibria and Sorption in Solids Lecture 17 - Soil Solution-Solid Phase Equilibria and Sorption in Solids (Continued...) Lecture 18 - Soil Solution-Solid Phase Equilibria and Sorption in Solids (Continued...) Lecture 19 - Soil Solution-Solid Phase Equilibria and Sorption in Solids (Continued...) Lecture 20 - Soil Solution-Solid Phase Equilibria and Sorption in Solids (Continued...) Lecture 21 - Ion Exchange Processes Lecture 22 - Ion Exchange Processes (Continued...) Lecture 23 - Ion Exchange Processes (Continued...) Lecture 24 - Ion Exchange Processes (Continued...) Lecture 25 - Ion Exchange Processes (Continued...) Lecture 26 - Kinetics of Soil Chemical Processes Lecture 27 - Kinetics of Soil Chemical Processes (Continued...) Lecture 28 - Kinetics of Soil Chemical Processes (Continued...) Lecture 29 - Kinetics of Soil Chemical Processes (Continued...)

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Lecture 30 - Kinetics of Soil Chemical Processes (Continued...) Lecture 31 - Redox Chemistry of Soils Lecture 32 - Redox Chemistry of Soils (Continued...) Lecture 33 - Redox Chemistry of Soils (Continued...) Lecture 34 - Redox Chemistry of Soils (Continued...) Lecture 35 - Redox Chemistry of Soils (Continued...) Lecture 36 - Soil Pollutants Lecture 37 - Soil Pollutants (Continued...) Lecture 38 - Soil Pollutants (Continued...) Lecture 39 - Soil Pollutants (Continued...) Lecture 40 - Soil Pollutants (Continued...) Lecture 41 - Pollutant-Soil Solution Interaction Lecture 42 - Pollutant-Soil Solution Interaction (Continued...) Lecture 43 - Pollutant-Soil Solution Interaction (Continued...) Lecture 44 - Pollutant-Soil Solution Interaction (Continued...) Lecture 45 - Pollutant-Soil Solution Interaction (Continued...) Lecture 46 - Retention of Pollutants on and within Soil Solid Phases Lecture 47 - Retention of Pollutants on and within Soil Solid Phases (Continued...) Lecture 48 - Retention of Pollutants on and within Soil Solid Phases (Continued...) Lecture 49 - Retention of Pollutants on and within Soil Solid Phases (Continued...) Lecture 50 - Retention of Pollutants on and within Soil Solid Phases (Continued...) Lecture 51 - Modeling the Fate of Pollutants in Soil, Risk and Remedies Lecture 52 - Modeling the Fate of Pollutants in Soil, Risk and Remedies (Continued...) Lecture 53 - Modeling the Fate of Pollutants in Soil, Risk and Remedies (Continued...) Lecture 54 - Modeling the Fate of Pollutants in Soil, Risk and Remedies (Continued...) Lecture 55 - Modeling the Fate of Pollutants in Soil, Risk and Remedies (Continued...) Lecture 56 - Analytical Techniques for Assessing Soil Pollution Lecture 57 - Analytical Techniques for Assessing Soil Pollution (Continued...) Lecture 58 - Analytical Techniques for Assessing Soil Pollution (Continued...) Lecture 59 - Analytical Techniques for Assessing Soil Pollution (Continued...) Lecture 60 - Analytical Techniques for Assessing Soil Pollution (Continued...)

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NPTEL Video Course - Architecture - NOC:Structural System in Architecture Subject Co-ordinator - Prof. Sankha Pratim Bhattacharya Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Structural System Lecture 2 - Force System Lecture 3 - Moment, Couple and Static Equilibrium Lecture 4 - Supports and Reactions Lecture 5 - Structural Loading and Support Reactions Lecture 6 - Theory of Elasticity - 1 Lecture 7 - Theory of Elasticity - 2 Lecture 8 - Shear Force Diagram Lecture 9 - Bending Moment Diagram Lecture 10 - SFD and BMD Lecture 11 - Bending Stress in Beam - I Lecture 12 - Bending Stress in Beam - II Lecture 13 - Bending Stress in Beam - III Lecture 14 - Shear Stress in Beam Lecture 15 - Theory of Column Lecture 16 - Deflection of Beams Lecture 17 - Indeterminate Beams Lecture 18 - Analysis of Fixed Beam, BMD and Deflected Shape, Portal Frame Lecture 19 - Structural Grid and Framing Lecture 20 - Structural Design Lecture 21 - Introduction to Truss Lecture 22 - Analysis of Truss - 1 Lecture 23 - Analysis of Truss - 2 Lecture 24 - Application of Truss in Architecture Lecture 25 - Space Frame Structures Lecture 26 - Introduction to Arch Lecture 27 - Structural Principle and Application of Arch Lecture 28 - Shell Structures Lecture 29 - Application of Arch and Shell in Architecture

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- Lecture 30 Structural Concept and Application of Dome in Architecture
- Lecture 31 Cable Supported Structures
- Lecture 32 Membrane Structures
- Lecture 33 Application of Tensile Structures in Architecture
- Lecture 34 Flat Plate and Flate Slab Structures
- Lecture 35 Waffle Slab and Folded Plate Structures
- Lecture 36 Temporary Structures
- Lecture 37 Building Foundation
- Lecture 38 Structural System for High-rise Buildings I
- Lecture 39 Structural System for High-rise Buildings II
- Lecture 40 Structural Detailing

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NPTEL Video Course - Architecture - NOC: Urban Landuse and Transportation Planning Subject Co-ordinator - Prof. Debapratim Pandit Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Landuse transportation planning Lecture 2 - Plans and planning process Lecture 3 - Urban landuse planning Lecture 4 - Comprehensive mobility plan Lecture 5 - Landuse transport interaction Lecture 6 - Theoretical foundations - Part 1 Lecture 7 - Theoretical foundations - Part 2 Lecture 8 - Modeling approaches Lecture 9 - Existing integrated land use transportation models Lecture 10 - Land use transportation model components and future challenges Lecture 11 - Sampling Theory - 1 Lecture 12 - Sampling Theory - 2 Lecture 13 - Data and Surveys Lecture 14 - Transport Planning surveys - Part 1 Lecture 15 - Transport Planning surveys - Part 2 Lecture 16 - Demographic Transition Lecture 17 - Demographic Models - 1 Lecture 18 - Demographic Models - 2 Lecture 19 - Microsimulation and Population Synthesis - 1 Lecture 20 - Microsimulation and Population Synthesis - 2 Lecture 21 - Urban Growth Assessment Lecture 22 - Urban land suitability assessment Lecture 23 - Accessibility - 1 Lecture 24 - Accessibility - 2 Lecture 25 - Land Price Model Lecture 26 - Discrete choice theory Lecture 27 - Residential mobility and location choice - 1 Lecture 28 - Residential mobility model using binary logistic regression Lecture 29 - Residential mobility and location choice - 2

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Lecture 30 - Residential location choice model using multinomial logistic regression Lecture 31 - Travel demand forecasting and Trip generation Lecture 32 - Multiple linear regression Lecture 33 - Trip Production and Attraction - 1 Lecture 34 - Trip Production and Attraction - 2 Lecture 35 - Trip distribution Lecture 36 - Mode choice theory Lecture 37 - Mode choice model Lecture 38 - Hybrid mode choice model - 1 (Factor Analysis) Lecture 39 - Hybrid mode choice model - 2 (Joint RP SP model) Lecture 40 - Nested logit model Lecture 41 - Introduction to Trip Assignment Lecture 42 - Route Choice Lecture 43 - Link assignment - 1 Lecture 44 - Link assignment - 2 Lecture 45 - Dynamic traffic assignment Lecture 46 - Transportation Software Lecture 47 - CUBE Overview Lecture 48 - Travel demand modelling using CUBE and VISUM Lecture 49 - Activity based modelling in CUBE Lecture 50 - Vehicular emission and pollution modelling Lecture 51 - Urban Freight Planning Lecture 52 - Urban Freight Planning Lecture 53 - Urban Freight Planning Lecture 54 - Last Mile Logistics - 1 Lecture 55 - Last Mile Logistics - 2 Lecture 56 - Employment location choice and Real estate Development location choice Lecture 57 - Activity based model - 1 Lecture 58 - Activity based model - 2 Lecture 59 - Mode choice using Machine Learning Lecture 60 - Shared Mobility

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NPTEL Video Course - Architecture - NOC: Urban utilities Planning : Water Supply, Sanitation and Drainage Subject Co-ordinator - Prof. Debapratim Pandit Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Urban Utilities Planning Issues Lecture 2 - Planning Strategies Lecture 3 - Planning Strategies (Continued...) Lecture 4 - Urban Utilities Lecture 5 - Water Sensitive Urban Planning Lecture 6 - Water Demand Prediction and Management Lecture 7 - Types of Urban Water Demand Lecture 8 - Fluctuations in Urban Water Demand Lecture 9 - Role of Government Lecture 10 - Cost of water supply Lecture 11 - Rainfall, Runoff and Ground Water Lecture 12 - Groundwater Properties and Flow Characteristics Lecture 13 - Groundwater Intakes and Issues Lecture 14 - Groundwater Yield Lecture 15 - Surface Water Intakes Lecture 16 - Pumping Stations Lecture 17 - Pumps Lecture 18 - Sizing of Pumps Lecture 19 - Service Reservoir - Part I Lecture 20 - Service Reservoir - Part II Lecture 21 - Distribution System Layout Lecture 22 - Conveyance of water - Part I Lecture 23 - Conveyance of water - Part II Lecture 24 - Pipes, Joints, Meters and SCADA Systems Lecture 25 - Distribution Network Design Lecture 26 - Water quality and testing - Part I Lecture 27 - Water quality and testing - Part II Lecture 28 - Water treatment - Part I Lecture 29 - Water treatment - Part II

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Lecture 30 - Water treatment - Part III
Lecture 31 - Sanitation basics - Part I
Lecture 32 - Sanitation Basics - Part II
Lecture 33 - Sewage Systems - Part I
Lecture 34 - Sewage Systems - Part II
Lecture 35 - Sewage Systems - Part III
Lecture 36 - Water Carriage System and Sewerage Layout
Lecture 37 - Quantity of Sanitary Sewage
Lecture 38 - Storm Water Drainage Planning - Part I
Lecture 39 - Storm Water Drainage Planning - Part II
Lecture 40 - Storm Water Drainage Planning - Part III
Lecture 41 - Sewer Design
Lecture 42 - Runoff estimation - Part 1
Lecture 43 - Runoff estimation - Part 2
Lecture 44 - Sewerage Network Design - Part 1
Lecture 45 - Sewerage Network Design - Part 2
Lecture 46 - Sewer appurtenances - Part 1
Lecture 47 - Sewer appurtenances - Part 2
Lecture 48 - Storm water drains
Lecture 49 - Sewer maintenance and cleaning
Lecture 50 - Laying of sewer and utility corridors
Lecture 51 - Sewage disposal and treatment in India: Introduction
Lecture 52 - Natural methods of sewage treatment
Lecture 53 - Artificial sewage treatment - Part 1: Primary treatment
Lecture 54 - Artificial sewage treatment - Part 2: Secondary treatment
Lecture 55 - Artificial sewage treatment - Part 3: Advanced methods
Lecture 56 - Ground water Recharge - Part 1
Lecture 57 - Ground water Recharge - Part 2
Lecture 58 - Urban flood management and drainage plans - Part 1
Lecture 59 - Urban flood management and drainage plans - Part 2
Lecture 60 - Urban flood management and drainage plans - Part 3
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NPTEL Video Course - Architecture - NOC:Urban Services Planning Subject Co-ordinator - Prof. Debapratim Pandit Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction Lecture 2 - Strategic Aspects Lecture 3 - Regulatory Framework Lecture 4 - Municipal Management and Finance - Part I Lecture 5 - Municipal Management and Finance - Part II Lecture 6 - Service Planning Basics - Part I Lecture 7 - Service Planning Basics - Part II Lecture 8 - Service Planning Basics - Part III Lecture 9 - Service Planning Basics - Part IV Lecture 10 - Service Planning Basics - Part V Lecture 11 - Solid Waste Management Rules and Guidelines Lecture 12 - Solid Waste Management Rules 2016 Lecture 13 - MSWM Plan Preparation - Part I Lecture 14 - MSWM Plan Preparation - Part II Lecture 15 - MSWM Plan Preparation - Part III Lecture 16 - Waste Generation - Part I Lecture 17 - Waste generation - Part II Lecture 18 - Waste quantification and characteristics Lecture 19 - Waste composition Lecture 20 - Waste storage Lecture 21 - Primary and Secondary waste collection - Part I Lecture 22 - Primary and Secondary waste collection - Part II Lecture 23 - Primary and Secondary waste collection - Part III Lecture 24 - Routing and scheduling for solid waste vehicles - Part I Lecture 25 - Routing and scheduling for solid waste vehicles - Part II Lecture 26 - Waste processing, recycling and recovery - Part 1 Lecture 27 - Waste processing, recycling and recovery - Part 2 Lecture 28 - Composting - Part 1 Lecture 29 - Composting - Part 2

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Lecture 30 - Composting - Part 3 Lecture 31 - SWM 2016 Specifications for Sanitary Landfills Lecture 32 - Site selection for Sanitary Landfills Lecture 33 - Sanitary Landfill Design - Part I Lecture 34 - Sanitary Landfill Design - Part II Lecture 35 - Sanitary Landfill design - Part III Lecture 36 - Waste to Energy - Part I: Biomethanation Lecture 37 - Waste to Energy - Part II: Refuse Derived Fuel Lecture 38 - Waste to Energy - Part III: Incineration Lecture 39 - Waste to Energy - Part IV Lecture 40 - Life Cycle Assessment Lecture 41 - Street sweeping and Cleaning of surface drains Lecture 42 - Construction and demolition waste management - Part I Lecture 43 - Construction and demolition waste management - Part II Lecture 44 - Special waste management - Part I Lecture 45 - Special waste management - Part II Lecture 46 - Healthcare facility standards - Part I Lecture 47 - Healthcare facility standards - Part II Lecture 48 - Urban Health Services - Part I Lecture 49 - Urban Health Services - Part II Lecture 50 - Health in Urban Planning Lecture 51 - Municipal Social Services: Introduction Lecture 52 - Economic and Social development Lecture 53 - Urban Poverty Alleviation Lecture 54 - Education Lecture 55 - Vulnerable population groups Lecture 56 - Vector Borne Disease Control Lecture 57 - Street Lighting Lecture 58 - Urban Forestry, Parks and Open Spaces Lecture 59 - Fire Stations Lecture 60 - Crematoriums and Burial Grounds

NPTEL Video Course - Architecture - NOC:Building Energy Systems and Auditing Subject Co-ordinator - Prof. Shankha Pratim Bhattacharya Co-ordinating Institute - IIT - Kharagpur Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Course Introduction Lecture 2 - Thermal Properties of Material - I Lecture 3 - Thermal Properties of Material - I (Continued...) Lecture 4 - Ventilation and Air Properties Lecture 5 - Psychometric Operations Lecture 6 - HVAC Systems Lecture 7 - Lighting System Lecture 8 - Electrical Machines and Appliances System Lecture 9 - Low Energy Cooling Systems - I Lecture 10 - Low Energy Cooling Systems - II Lecture 11 - Building Heat Gain Calculation Lecture 12 - Cooling Degree Days Method Lecture 13 - Cooling Load Calculation - I Lecture 14 - Cooling Load Calculation - II Lecture 15 - Periodic Cooling Load Lecture 16 - Envelope Performance Factor Lecture 17 - EPF - Prescriptive Requirements Lecture 18 - EPF - Analysis Lecture 19 - Daylighting Concepts Lecture 20 - ECBC recommendation for Daylighting Lecture 21 - Introduction to Eco-Niwas Samhita 2018 Lecture 22 - Overview of Residential Envelope Transmittance Value Lecture 23 - Computation of Residential Envelope Transmittance Value Lecture 24 - Thermal Comfort Parameters Lecture 25 - Thermal Comfort Indices Lecture 26 - Introduction to Life Cycle Analysis Lecture 27 - Embodied Energy Calculation Lecture 28 - Building Life Cycle Analysis Lecture 29 - Introduction to Energy Audit

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Lecture 30 - Energy Audit: Case Studies Lecture 31 - Introduction to Energy Performance Index Lecture 32 - Star Rating for Office Building Lecture 33 - Star Rating of Shopping Mall and BPO Lecture 34 - Introduction to Energy Retrofitting of Buildings Lecture 35 - Energy Retrofitting of buildings: Types System and key phases Lecture 36 - Solar Energy - I Lecture 37 - Solar Energy - II Lecture 38 - BIPV and Solar Thermal Lecture 39 - Wind and Bio Energy Lecture 40 - Net Zero Building and Sustainability

NPTEL Video Course - Architecture - NOC:Introduction to History of Architecture in India Subject Co-ordinator - Prof. Pushkar Sohoni Co-ordinating Institute - IIT - Madras Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Early Architecture Lecture 2 - Buddhist and Early Temple Architecture Lecture 3 - Sacrificial Altars and Divine Shelters
Lecture 4 - The Great Temple
Lecture 5 - Week-1 Review
Lecture 6 - Delhi Sultanate
Lecture 7 - Regional Sultanas
Lecture 8 - Temple and Mosque
Lecture 9 – Daulatabad Fort
Lecture 10 - Week-2 Review
Lecture 11 - Mughal Architecture - Part 1
Lecture 12 - Mughal Architecture - Part 2
Lecture 13 - Imbrication of Sultanate and Maratha Architecture
Lecture 14 - Maratha Temple
Lecture 15 - Week-3 Review
Lecture 16 - Princely States of India
Lecture 17 - Colonial Architecture In India
Lecture 18 - International, Art Deco, Modern
Lecture 19 - Architecture Today Commerce and Creativity
Lecture 20 - Week-4 Review

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NPTEL Video Course - Architecture - NOC:Strategies for Sustainable Design Subject Co-ordinator - Prof. Shiva Ji Co-ordinating Institute - IIT - Madras Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Strategies for Sustainable Design - Welcome Lecture Lecture 2 - Various Perspectives around Sustainability Lecture 3 - Spheres of Energy Efficient/Green/Environmental/Sustainable Designs Lecture 4 - Environmental Sustainability Lecture 5 - Social Sustainability Lecture 6 - Economic Sustainabilty Lecture 7 - Climate Change Mitigation and the Way Forward Lecture 8 - Future of Human Habitation Design Lecture 9 - Relevance of Sustainable Design in Contemporary Context Lecture 10 - Built Environment and Energy Consumption Lecture 11 - Reliance and Dependence of Building Design on Energy Lecture 12 - Current Scenario of Sustainable Design: Indian Lecture 13 - Current Scenario of Sustainable Design: International Lecture 14 - Designing Strategically for Preventing pollution: Air, Water, Soil, Noise, Light Radiation, etc Lecture 15 - Low Environmental Impact Lecture 16 - Thinking for Alternatives through Systemic Design Lecture 17 - Consumption and Consumerist Lifestyle Lecture 18 - Environmental impact Assessment Lecture 19 - Lifecycle Analysis - Part A Lecture 20 - Lifecycle Analysis - Part B Lecture 21 - Growth and Development in Construction and Allied Sectors Lecture 22 - Policy Push in Real Estate and Manufacturing Sectors Lecture 23 - Policy Push for Development of the Low Economic Regions Lecture 24 - Sustainable Building Materials Lecture 25 - Reduce/Reuse/Recycle Lecture 26 - National Building Code 2016 - Part 11 and Energy Conservation Building Code Lecture 27 - Guidelines for Building Design by SA Methods: GRIHA Lecture 28 - UN SDG for Sustainable Development Lecture 29 - LeNS Design Method and Tools such as SPSS, MSDS, DE

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Lecture 30 - Vernacular Design Case Example
Lecture 31 - Climate Responsiveness
Lecture 32 - Thinking the Unthinkable: Need for Innovation in Design Process
Lecture 33 - Design for Net-Zero Energy, Lighting, Ventilation, Views and Human Comfort
Lecture 34 - D4S with Inspiration from Nature
Lecture 35 - D4S for Optimization of Manufacturing
Lecture 36 - International Conventions, Laws and Emerging Technologies for SD
Lecture 37 - Environmental Laws
Lecture 38 - Emerging Technologies and their Possible Intervention in Design
Lecture 39 - Case 1 - Campus Planning and Design of IIT Gandhinagar
Lecture 40 - Case 2 - A Comparative Analysis of Product Designs
Lecture 41 - Case 3 - Design of First Net-Zero Building of India
Lecture 42 - Case 4 - A Comparative Analysis of Internatonal Design Projects
Lecture 43 - Summary

NPTEL Video Course - Architecture - NOC: Architectural Approaches to Decarbonization of Buildings Subject Co-ordinator - Prof. Iyer Vijayalaxmi Kasinath Co-ordinating Institute - School of Planning and Architecture Vijayawada Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to GHG and the role of buildings in its reduction Lecture 2 - Strategies to reduce GHG in Building Industry Lecture 3 - Policies, initiatives and future trends to reduce GHG in the Building Industry Lecture 4 - India's stand on Carbon Neutrality Lecture 5 - India's approach to long term low Low Carbon Development - Part 1 Lecture 6 - India's approach to long term low Low Carbon Development - Part 2 Lecture 7 - Embodied energy and Embodied Carbon Lecture 8 - Basics of Embodied and Operational Carbon - Part 1 Lecture 9 - Basics of Embodied and Operational Carbon - Part 2 Lecture 10 - Factors of Embodied energy calculation Lecture 11 - Operational Energy and Operational Carbon - Part 1 Lecture 12 - Operational Energy and Operational Carbon - Part 2 Lecture 13 - Strategies to reduce Operational Energy Lecture 14 - Strategies to reduce Operational Energy and Case study Lecture 15 - Impact of reducing Operational Energy and Operational Carbon Lecture 16 - Passive Design Strategies in Carbon neutral Architecture Lecture 17 - Orientation and Form for Passive cooling Lecture 18 - Appropriate Planning for Passive Architecture Lecture 19 - Appropriate fenestration for Passive Architecture Lecture 20 - Appropriate Planning and openings for Passive Architecture Lecture 21 - Settlement planning principles for carbon neutrality Lecture 22 - Settlement planning principles for carbon neutrality - case studies Lecture 23 - Appropriate Openings for reduced Operational Energy - Part 1 Lecture 24 - Appropriate Openings for reduced Operational Energy - Part 2 Lecture 25 - Methods of bringing in natural daylight Lecture 26 - Role of Landscape and water in Passive Design - Part 1 Lecture 27 - Role of Landscape and water in Passive Design - Part 2 Lecture 28 - Carbon neutrality through strategising building materials Lecture 29 - Choice of building materials for carbon neutrality - Part 1

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Lecture 30 - Choice of building materials for carbon neutrality - Part 2 Lecture 31 - Strategies to reduce Embodied Carbon through Design and Development Lecture 32 - Renewable building materials Lecture 33 - Renewable building materials and technologies Lecture 34 - Renewable building materials based Case studies Lecture 35 - High embodied carbon building materials Lecture 36 - Comparison between conventional and alternate building materials Lecture 37 - Environmental impacts of building materials and components Lecture 38 - Building Envelope types Lecture 39 - Dynamic Envelope - Case Studies Part 1 Lecture 40 - Dynamic Envelope - Case Studies Part 2 Lecture 41 - Low Energy Envelope - Part 1 Lecture 42 - Low Energy Envelope - Part 2 Lecture 43 - Natural Daylighting Strategies Lecture 44 - Daylighting optimized skylights Lecture 45 - Daylighting optimized fenestration Lecture 46 - Daylighting - Case studies 1 Lecture 47 - Daylighting - Case studies 2 Lecture 48 - Recap and Conclusion

NPTEL Video Course - Architecture - NOC:Building Materials as a Cornerstone to Sustainability Subject Co-ordinator - Prof. Iyer Vijayalaxmi Kasinath Co-ordinating Institute - School of Planning and Architecture Vijayawada Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Building materials, their classification, environmental issues Lecture 2 - Vernacular Materials Lecture 3 - Mud - Traditional Material Lecture 4 - Mud as a Building material Lecture 5 - Stone Lecture 6 - Thatch Lecture 7 - Bamboo Lecture 8 - Binders Lecture 9 - Strawbale Lecture 10 - Laterite Quarry Waste Lecture 11 - Alternate building materials Lecture 12 - Flyash Lecture 13 - Furnace Slag Lecture 14 - Cross Laminated Timber Lecture 15 - Construction and Demolition waste Lecture 16 - Hempcrete Lecture 17 - Phosphogypsum Lecture 18 - Aerated Concrete Lecture 19 - Alternate aggregate Lecture 20 - Innovative Building materials Lecture 21 - Bioluminiscent paints Lecture 22 - Milk Paints and Recycled Plastics Lecture 23 - Agro bricks Lecture 24 - Light emitting materials - concrete Lecture 25 - Co2 absorbing concrete Lecture 26 - Mycelium Lecture 27 - Fibre Reinforced Concrete Lecture 28 - Geopolymer concrete Lecture 29 - Introduction to Advanced Building Materials

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Lecture Lecture Lecture Lecture	31 32 33 34	- - -	Carbon Sequestration Ecobind Tiles Permeable Concrete Introduction to smart materials Types of Smart Materials Facade systems - Smart Windows
Lecture 3			1
			Photochromics
			Thermochromic
Lecture 3	39	-	Thermotropic materials
Lecture 4	40	—	Types of Thermotropic materials
Lecture 4	41	_	Phase Change Materials - Part 1
Lecture 4	42	_	Phase Change Materials - Part 2
Lecture 4	43	_	Adhesion changing smart materials
Lecture 4	44	_	Titanium di oxide products
			Mechanochromic, Chemochromic
			Electrochromics
			Nanocellulose and Electroluminiscent
			Concluding Lectuer
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NPTEL Video Course - Architecture - NOC:Bioclimatic Architecture: Futureproofing with Simple and Advanced Pas Subject Co-ordinator - Prof. Iyer Vijayalaxmi Kasinath Co-ordinating Institute - School of Planning and Architecture, Vijayawada Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Bioclimatic Architecture Lecture 2 - Strategies for Bioclimatic Architecture Lecture 3 - Simple Passive Strategies - Introduction Lecture 4 - Principles of Simple Passive Architecture Lecture 5 - Advanced Passive Strategies - Passive Heating Strategies Lecture 6 - Advanced Passive Strategies - Cooling Strategies Lecture 7 - Classification of Climate Lecture 8 - Climate Zones of India Lecture 9 - Climate charactesitcis in India - warm-humid, hot dry Lecture 10 - Climate characterisitc of composite climate Lecture 11 - Climate characteristics of temperate climate and cold climate Lecture 12 - Thermal Comfort and Thermal Comfort Models Lecture 13 - Mahoney's Tables Lecture 14 - Bioclimatic chart and Psychrometric Chart Lecture 15 - Simple Graphic tools to understand climate - Climate Consultant Lecture 16 - Orientation and form Lecture 17 - Openings - Size, Position, Shading device - Part 1 Lecture 18 - Openings - Size, Position, Shading device - Part 2 Lecture 19 - Urban Heat Island Lecture 20 - Earth Sheltering Lecture 21 - Solar Chimney Lecture 22 - Roof Pond System Lecture 23 - High Performance Glazing Lecture 24 - Double Roofing Lecture 25 - Cool Roof Lecture 26 - Thermal Mass and Night Flushing Lecture 27 - Double skin green facade Lecture 28 - solar air collectors Lecture 29 - Passive down draught evaporative cooling

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Lecture 30 - Direct Evaporative cooling Lecture 31 - Root Zone Treatment Lecture 32 - Trombe Wall and Water Wall Lecture 33 - Thermosiphon Solar Air Heater Lecture 34 - Wind towers Lecture 35 - Cavity walls Lecture 36 - Sunspace Lecture 37 - Green Roof Lecture 38 - PCM with Glazing Lecture 39 - Earth Air Tunnels Lecture 40 - Radiant Cooling System Lecture 41 - Passive Design Strategies for Moderate Climate Lecture 42 - Case study of Moderate climate Lecture 43 - Passive Design Strategies for cold climate and case studies Lecture 44 - Passive Design Strategies for Warm-Humid climate and case studies Lecture 45 - Passive Design Strategies for Hot-Dry climate Lecture 46 - Case studies - Hot-dry climate Lecture 47 - Passive Design Strategies for Composite climate and Case studies Lecture 48 - Recap and Conclusion

NPTEL Video Course - Architecture - NOC: Housing Policy and Planning Subject Co-ordinator - Prof. Uttam Kumar Roy Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Housing Lecture 2 - Housing Classifications Lecture 3 - Housing Situation Lecture 4 - Policy and Public intervention - 1 Lecture 5 - Policy and Public intervention - 2 Lecture 6 - Urban Reform Lecture 7 - Housing Policy Lecture 8 - Legal and Institutional Framework for Housing Lecture 9 - Land for Housing - 1 Lecture 10 - Land for Housing - 2 Lecture 11 - Affordability and Housing Finance Lecture 12 - Technology Systems in Housing Delivery - 1 Lecture 13 - Technology Systems in Housing Delivery - 2 Lecture 14 - Housing for All Mission (PMAY) and Technology Sub-mission Lecture 15 - Summing up of Part-1 (Policy) and Introduction to Housing Planning Lecture 16 - Urban and Regional Planning - 1 Lecture 17 - Urban and Regional Planning - 2 Lecture 18 - Development Controls Lecture 19 - Housing Infrastructure and Services-1 Lecture 20 - Housing Infrastructure and Services-2 Lecture 21 - Housing Infrastructure and Services-3 Lecture 22 - Housing Strategy for City-1 Lecture 23 - Housing Strategy for City-2 Lecture 24 - Housing Strategy for City-3 Lecture 25 - Planning for Plotted Housing Lecture 26 - Planning for Group Housing Lecture 27 - Community Development in Housing Lecture 28 - Cooperative Housing Lecture 29 - Institutional and rental housing _____

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- Lecture 30 Working Person s hostel and Serviced Apartments
- Lecture 31 Informal Housing Typologies
- Lecture 32 Approaches in Improving Slums and Squatters
- Lecture 33 Urban Village and Unauthorized Construction
- Lecture 34 Pavement Dwellers and Night Shelters
- Lecture 35 Old Age Home
- Lecture 36 Disaster Resistant Housing
- Lecture 37 Housing and Real Estate Development
- Lecture 38 Housing Management
- Lecture 39 Housing
- Lecture 40 Course Summary and Conclusion

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NPTEL Video Course - Architecture - NOC:Visual Communication Design for Digital Media Subject Co-ordinator - Prof. Saptarshi Kolay Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Visual Communication Design for Digital Media Lecture 2 - Elements of Design - Part 1 Lecture 3 - Elements of Design - Part 2 Lecture 4 - Principles of Design - Part 1 Lecture 5 - Principles of Design - Part 2 Lecture 6 - Types of digital media technology an overview of the field

Lecture 4 - Principles of Design - Part 1 Lecture 5 - Principles of Design - Part 2 Lecture 6 - Types of digital media technology an overview of the field Lecture 7 - Typography - 1 Lecture 8 - Typography - 2 Lecture 9 - Semiotics - 1 Lecture 10 - Semiotics - 2 Lecture 11 - Visual perception Lecture 12 - Contemporary Visual Language - 1 Lecture 13 - Contemporary Visual Language - 2 Lecture 14 - Technology Advancements in Digital Media Lecture 15 - Visual Design Methodology - 1 Generic Design Lecture 16 - Visual Design Methodology - 2_Generic Design Lecture 17 - Visual Design Methodology - 3 Animation Lecture 18 - Visual Design Methodology - 4 web design Lecture 19 - Visual Design Methodology - 5 graphic-design Lecture 20 - Case Studies of Visual Design on Digital Paradigm

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NPTEL Video Course - Architecture - NOC: Culturally Responsive Built Environments Subject Co-ordinator - Prof. Ram Sateesh Pasupuleti Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - A Place Lecture 2 - Place and Identity Lecture 3 - Habitus - A Sense of Place Lecture 4 - A Home - Introduction to Vernacular Architecture Lecture 5 - The New Vernacular Lecture 6 - Understanding Vernacular - Towards Anthropology Lecture 7 - Understanding Rock Shelters Lecture 8 - The Ecological and Sacred Dimension Lecture 9 - Winter Landscape and Urbanism Lecture 10 - Winter Cities Lecture 11 - Power in Built Form Lecture 12 - Spatial Analysis Lecture 13 - The Forbidden Space Lecture 14 - Religious Architecture Lecture 15 - Understanding Construction Workers' Housing Lecture 16 - Culture and Disasters - Towards Method and Framework Lecture 17 - Understanding Post Tsunami Response (Tamilnadu) Lecture 18 - Cultural Heritage Lecture 19 - Understanding the Cultural Context in Disasters and Development Lecture 20 - Culture, Climate Change Adaptation And Disaster Risk Reduction Lecture 21 - Conservation Lecture 22 - Conservation Lecture 23 - Learning from Vernacular

- Lecture 24 Protection of the World Cultural and Natural Heritage
- Lecture 25 Intangible Cultural Heritage
- Lecture 26 City HRIDAY Plan of Badami
- Lecture 27 Cultural planning Approaches
- Lecture 28 Urban Transformations in Doha
- Lecture 29 How The Other Half Builds?

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- Lecture 30 How To/Not To Relocate Slums?
- Lecture 31 Stone- as a Vernacular Building material
- Lecture 32 Timber as Vernacular Building material
- Lecture 33 Timber Construction (A journey from Advanced to Vernacular)
- Lecture 34 How To Study Vernacular Architecture?
- Lecture 35 Architecture with out Architects
- Lecture 36 Social Change in India (Sanskritisation)
- Lecture 37 Social Change in India (Westernization)
- Lecture 38 Social Change in India (Modernization- Globalization)
- Lecture 39 Pluralism in Built Environment Education
- Lecture 40 Summary and Conclusion

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NPTEL Video Course - Architecture - NOC: Contemporary Architecture and Design
Subject Co-ordinator - Prof. Saptarshi Kolay
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - World Architecture and Design History
Lecture 3 - Industrial Revolution and Beginning of Modern Era
Lecture 4 - Post Industrial Revolution
Lecture 5 - Post Industrial Revolution
Lecture 6 - Post Industrial Revolution
Lecture 7 - Post Industrial Revolution
Lecture 8 - Evolution and Timeline of Modern Architecture and Design
Lecture 9 - Phases of Modern Architecture - Bauhaus
Lecture 10 - Phases of Modern Architecture - De Stijl
Lecture 11 - Phases of Modern Architecture - Chicago School
Lecture 12 - Phases of Modern Architecture - Chicago and Prairie School
Lecture 13 - Phases of Modern Architecture - Prairie School
Lecture 14 - Phases of Modern Architecture - Organic - Part 1
Lecture 15 - Phases of Modern Architecture - Organic - Part 2
Lecture 16 - Phases of Modern Architecture - Art Deco - Part 1
Lecture 17 - Phases of Modern Architecture - Art Deco - Part 2
Lecture 18 - Phases of Modern Architecture - Internationalism - Part 1
Lecture 19 - Phases of Modern Architecture - Internationalism - Part 2
Lecture 20 - Phases of Modern Architecture - Expressionism
Lecture 21 - Phases of Modern Architecture - Monolithic Style
Lecture 22 - Phases of Modern Architecture - Tensile and Steel Structures - Part 1
Lecture 23 - Phases of Modern Architecture - Tensile and Steel Structures - Part 2
Lecture 24 - Phases of Modern Architecture - Brutalism
Lecture 25 - Phases of Modern Architecture - Metabolism
Lecture 26 - Phases of Modern Architecture - Brutalism and Metabolism in India
Lecture 27 - Phases of Modern Art - Part 1
Lecture 28 - Phases of Modern Art - Part 2
Lecture 29 - Phases of Post Modern Architecture - Part I
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Lecture 30 - Phases of Post Modern Architecture - Part II Lecture 31 - Phases of Post Modern Architecture - Historicism Lecture 32 - Phases of Post Modern Architecture - High Tech Lecture 33 - Phases of Post Modern Architecture - Neo Modern Lecture 34 - Phases of Post Modern Architecture - Critical Regionalism Lecture 35 - Phases of Post Modern Architecture - Memphis Milano Lecture 36 - Phases of Post Modern Architecture - Deconstructivism - Part I Lecture 37 - Phases of Post Modern Architecture - Deconstructivism - Part I Lecture 38 - Phases of Post Modern Architecture - Deconstructivism - Part II Lecture 39 - Evolution of Typography in Contemporary Era Lecture 40 - Phases of Post Modern Architecture - Industrial Design

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NPTEL Video Course - Architecture - NOC: Role of Craft and Technology in Interior-Architecture
Subject Co-ordinator - Prof. Smriti Saraswat
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Interior-Architecture
Lecture 2 - Craft
Lecture 3 - Interior-Architecture and Craft and Technology
Lecture 4 - Interior-Architecture and Craft and Technology
Lecture 5 - Summary and Discourse - I
Lecture 6 - Interior-Architecture
Lecture 7 - Traditional Knowledge Systems and the Ingenious skills of the communities
Lecture 8 - Interior-Architecture
Lecture 9 - Traditional Knowledge Systems and the Indigenous materials; tools and techniques
Lecture 10 - Summary and Discourse - II
Lecture 11 - Creative and Cultural Industries
Lecture 12 - Building Crafts
Lecture 13 - Building Crafts
Lecture 14 - Building Crafts; Craft and Technology and its Role in Creating/Enhancing Interior-Architecture
Lecture 15 - Summary and Discourse - III
Lecture 16 - Best Studies related to the Craft Sector
Lecture 17 - Case Studies from Gujarat
Lecture 18 - Case Studies from Rajasthan
Lecture 19 - Case Studies from Uttarakhand
Lecture 20 - Summary and Discourse - IV
Lecture 21 - Craft and Technology in Interior Architecture
Lecture 22 - Craft and Technology in Interior Architecture; Decoding Systems
Lecture 23 - Craft and Technology in Interior Architecture
Lecture 24 - Craft and Technology in Interior Architecture; Transformation through Time
Lecture 25 - Summary and Discourse - V
Lecture 26 - Overview of the Craft Sector Today
Lecture 27 - Craft Sector
Lecture 28 - Craft Sector
Lecture 29 - Craft Sector
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Lecture 30 - Summary and Discourse - VI Lecture 31 - Continuity and Revival Lecture 32 - Continuity and Revival Lecture 33 - Continuity and Revival Lecture 34 - Continuity and Revival Lecture 35 - Summary and Discourse - VII Lecture 36 - Interventions Lecture 37 - Interventions Lecture 38 - Interventions Lecture 39 - Interventions Lecture 40 - Summary and Discourse - VIII

NPTEL Video Course - Architecture - NOC: Urban Governance and Development Management Subject Co-ordinator - Prof. Uttam Kumar Roy Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Urbanisation Lecture 2 - Introduction to Urban Governance Lecture 3 - Constitutional Provision for Urban Local Governance Lecture 4 - Legislative Provisions Lecture 5 - Interfaces Lecture 6 - People & Community - 1 Lecture 7 - People & Community - 2 Lecture 8 - Land as Basic Resource Lecture 9 - Urban Environment and Ecology Lecture 10 - Distinctive Features of Non-Municipal Urban (NMU) and Nagar Panchayats Lecture 11 - Organisation Development Lecture 12 - Transparency and Accountability Lecture 13 - Capacity Building - 1 Lecture 14 - Capacity Building - 2 Lecture 15 - Improving Systems and Processes for Urban Governance Lecture 16 - Urban Reform and Managing Change - 1 Lecture 17 - Urban Reform and Managing Change - 2 Lecture 18 - Visioning for Cities Lecture 19 - Resolving Conflicts for Managing Change Lecture 20 - Leadership and Team Building Lecture 21 - Basic Concepts of Planning and Development Lecture 22 - Regional and Metropolitan Planning Lecture 23 - Urban Planning Lecture 24 - Urban Infrastructure and Services - 1 Lecture 25 - Urban Infrastructure and Services - 2 Lecture 26 - Overview of Municipal Finance Lecture 27 - Alternate Sources of Municipal Finance Lecture 28 - Municipal Accounts Lecture 29 - Value Capture Financing

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Lecture 30 - Public Private Partnership (PPP) in Urban Governance Lecture 31 - Housing Strategy for Cities Lecture 32 - Housing & Urban Poverty Lecture 33 - Real Estate Regulation and Development Lecture 34 - Urban Land Management Lecture 35 - Urban Risk and Disaster Management Lecture 36 - Managing Urban Environment - 1 Lecture 37 - Managing Urban Environment - 2 (Mandates for Blue and Green Infrastructures) Lecture 38 - Traffic and Transportation Management - 1 Lecture 39 - Traffic and Transportation Management - 2 Lecture 40 - Designing Urban Public Spaces Lecture 41 - Centrally Sponsored Programmes and Schemes Lecture 42 - AMRUT Lecture 43 - Smart City Lecture 44 - Swachh Bharat Mission and HRIDAY Lecture 45 - PMAY and NULM Lecture 46 - Fundamentals of Project Planning Lecture 47 - Formulation of Projects Lecture 48 - Project Monitoring and Management Lecture 49 - Essentials of Infrastructure and Engineering Design Lecture 50 - Managing Trans-municipal and Large Projects Lecture 51 - Enhancing City Image Lecture 52 - Essential Competencies of City Managers Lecture 53 - Problem Solving and Decision Making Lecture 54 - Effective Negotiation Lecture 55 - Communication Skills Lecture 56 - Time Management Lecture 57 - Stress Management Lecture 58 - Best Practices in Urban Management Lecture 59 - Reflective Learning and Excellence Lecture 60 - Course Summary, Doubt Clearing and Further Reading

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NPTEL Video Course - Architecture - NOC: User Interface Design
Subject Co-ordinator - Prof. Saptarshi Kolay
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction
Lecture 2 - User Interface Designer
Lecture 3 - Design methods - I
Lecture 4 - Design Methods - II
Lecture 5 - Human Factor in Interaction Design
Lecture 6 - User Research - I
Lecture 7 - User Research - II
Lecture 8 - Low Fidelity Design - I
Lecture 9 - Low Fidelity Design - II
Lecture 10 - High Fidelity Design
Lecture 11 - Visual Cognition
Lecture 12 - Contemporary Visual Language in Design - I
Lecture 13 - Contemporary Visual Language in Design - II
Lecture 14 - Usage of Typography in User Interface Design - I
Lecture 15 - Usage of Typography in User Interface Design - II
Lecture 16 - Design Semiotics and Visual Perception
Lecture 17 - Visual Communication Design
Lecture 18 - User Testing - I
Lecture 19 - User Testing - II
Lecture 20 - Contemporary Interface Design Technology
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NPTEL Video Course - Architecture - NOC: Disaster Recovery and Build Back Better
Subject Co-ordinator - Prof. Subhojyothi Samaddar
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Disaster risk
Lecture 2 - Disaster Recovery and Build Back Better
Lecture 3 - Risk Perception and Disaster Risk Preparedness - Part 2
Lecture 4 - Build Back Better - People's Perspectives
Lecture 5 - Architecture at Risk
Lecture 6 - Culture, climate change adaptation and disaster risk reduction
Lecture 7 - Ayutthaya at Risk
Lecture 8 - Disaster vulnerability
Lecture 9 - Cultural Heritage
Lecture 10 - Rock shelters at risk
Lecture 11 - The Built Environment Professions in Disaster Risk Reduction and Response
Lecture 12 - Gadri discussions
Lecture 13 - Community Participation in Disaster Risk Governance
Lecture 14 - Community Participation in Disaster Risk Governance
Lecture 15 - Frameworks
Lecture 16 - Disaster Preparedness from Cognitive and Heuristic Perspectives
Lecture 17 - Information for Disaster Preparedness
Lecture 18 - The Role of Social Networks in Disaster Preparedness
Lecture 19 - Diffusion of Disaster Preparedness Technology
Lecture 20 - Cities and Climate Change
Lecture 21 - Temporary Shelter Construction in India
Lecture 22 - Temporary shelter construction in Kenya
Lecture 23 - Build back better in Nepal recovery
Lecture 24 - Lessons from Peru
Lecture 25 - Progressive Housing in El Salvador
Lecture 26 - Decentralizing (re)construction in Colombia
Lecture 27 - Tsunami reconstruction in Tamilnadu - Part 1 (Approach)
Lecture 28 - Tsunami reconstruction in Tamilnadu - Part 2 (Findings)
Lecture 29 - Culture and (disaster)risk
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- Lecture 30 Cultural theory of risk
- Lecture 31 Guidance to DRR
- Lecture 32 Self-help housing in Turkey
- Lecture 33 The Production of refugee place in time
- Lecture 34 Assessments
- Lecture 35 Designing culturally responsive built environment in disaster context
- Lecture 36 Disaster Risk Communication
- Lecture 37 CAM and CBDRM
- Lecture 38 How to teach disaster recovery and built back better in-built environment education
- Lecture 39 Source, Message and Receiver in Disaster Risk Communication
- Lecture 40 Summary and Conclusion

NPTEL Video Course - Architecture - NOC:Sustainable Architecture

Subject Co-ordinator - Prof. Avlokita Agrawal

Co-ordinating Institute - IIT - Roorkee

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

Lecture 1 - Introduction to Sustainability Lecture 2 - Buildings, Needs and 'Sustainability' Lecture 3 - Sustainability and Sustainable Development Lecture 4 - Historic Origins of Sustainability Lecture 5 - Pioneers of Sustainable Development Lecture 6 - Environmental Impacts of Development Lecture 7 - Environmental Impacts of Development Lecture 8 - Social and Economic Impacts of Development Lecture 9 - Agenda 21 and UN Goals Lecture 10 - Established needs for Sustainability in Building Sector Lecture 11 - Definition and Characteristics of Sustainability Lecture 12 - Flavors of Sustainable Architecture Lecture 13 - Indicators and Terminologies in Sustainable Architecture Lecture 14 - Process of Designing Green Buildings Lecture 15 - Green Building Ratings and Components Lecture 16 - Fundamentals of Thermal Comfort Lecture 17 - Climatic Considerations, Physiological Objectives of Design Lecture 18 - Fundamentals of Climate Responsive Buildings - I Lecture 19 - Fundamentals of Climate Responsive Buildings - II Lecture 20 - Visual and Acoustic Comfort Lecture 21 - Sustainable Sites - I Lecture 22 - Sustainable Sites - II Lecture 23 - Sustainable Sites - III Lecture 24 - Sustainable Sites - IV Lecture 25 - Sustainable Sites - V Lecture 26 - Water Conservation - I Lecture 27 - Water Conservation - II Lecture 28 - Water Conservation - III Lecture 29 - Water Conservation - IV

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Lecture 30 - Water Conservation - V Lecture 31 - Materials and Resources - I Lecture 32 - Materials and Resources - II Lecture 33 - Materials and Resources - III Lecture 34 - Materials and Resources - IV Lecture 35 - Materials and Resources - V Lecture 36 - Energy Efficiency - I Lecture 37 - Energy Efficiency - II Lecture 38 - Energy Efficiency - III Lecture 39 - Energy Efficiency - IV Lecture 40 - Energy Efficiency - V Lecture 41 - Indoor Environmental Quality - I Lecture 42 - Indoor Environmental Quality - II Lecture 43 - Indoor Environmental Quality - III Lecture 44 - Indoor Environmental Quality - IV Lecture 45 - Indoor Environmental Quality - V Lecture 46 - Vernacular Architecture - I Lecture 47 - Vernacular Architecture - II Lecture 48 - Codes and Standards Lecture 49 - Introduction to Whole Building Simulation - I Lecture 50 - Introduction to Whole Building Simulation - II Lecture 51 - Whole Building Performance - I Lecture 52 - Whole Building Performance - II Lecture 53 - Whole Building Performance - III Lecture 54 - Whole Building Performance - IV Lecture 55 - Whole Building Performance - V Lecture 56 - Whole Building Performance - VI Lecture 57 - Whole Building Performance - VII Lecture 58 - Whole Building Performance - VIII Lecture 59 - Whole Building Performance - IX Lecture 60 - Whole Building Performance - X

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NPTEL Video Course - Architecture - NOC:Structure, Form and Architecture: The Synergy
Subject Co-ordinator - Prof. Shubhajit Sadhukhan
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Structure, Form and Architecture Lecture 2 - Relationship of Structure to Architectural Buildings - Part I Lecture 3 - Relationship of Structure to Architectural Buildings - Part II Lecture 4 - Loads on Structures Lecture 5 - Synthesis of Architectural and Structural Form Lecture 6 - Connecting Structure and Architecture - Part I Lecture 7 - Connecting Structure and Architecture - Part II Lecture 8 - Structural Transformation in Architectural History Lecture 9 - Factors affecting the Structural Forms Lecture 10 - Learning from Animal's Architecture Lecture 11 - Basic Structural Properties Lecture 12 - Structural Requirements Lecture 13 - Structural Arrangement Lecture 14 - Structural Forms and Shapes Lecture 15 - Structural Materials Lecture 16 - Structural Typology Lecture 17 - Compressive Structures Lecture 18 - Tensile Structures Lecture 19 - Load Bearing Structures Lecture 20 - Temporary Structures Lecture 21 - Framed Structure Lecture 22 - Arch Structures Lecture 23 - Vault Structures Lecture 24 - Dome Structures Lecture 25 - Grid Structures Lecture 26 - Shell Structures Lecture 27 - Trusses and Space Frames Lecture 28 - Folded Plate Structures Lecture 29 - Membrane Structures

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Lecture 30 - Pneumatic Structures Lecture 31 - Structure and Architectural Forms in Windy Areas Lecture 32 - Structure and Architectural Forms in Seismic Prone Areas Lecture 33 - Structure and Architectural Forms in Flood Prone Areas Lecture 34 - Cost Effective Structure and Architecture Lecture 35 - Structure and Light in Architecture Lecture 36 - Evolution of Highrise Structural System Lecture 37 - Highrise Structural Components - Part I Lecture 38 - Highrise Structural Components - Part II Lecture 39 - Mega Structure and Architecture-Case Studies Lecture 40 - Architecture and Structure - Past, Present and Future

NPTEL Video Course - Architecture - NOC: Engineering-Architectural Graphics - Part I: Orthographic projection Subject Co-ordinator - Prof. Avlokita Agrawal Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction to Engineering Graphics Lecture 2 - Drawing Instruments Lecture 3 - Sheet Layout and Fixing Sheet Lecture 4 - Types of Lines and Graphic Symbols Lecture 5 - Lettering Lecture 6 - Dimensioning Lecture 7 - Basic Geometrical Construction Lecture 8 - Scales Lecture 9 - Curves used in Engineering Practice: Conic Sections Lecture 10 - Curves used in Engineering Practice: Cycloids, Trochoids and Involutes Lecture 11 - Introduction to Orthographic Projection Lecture 12 - Orthographic Projections - 1st Quadrant Vs 3rd Quadrant Lecture 13 - Orthographic Projections - Projection of Points Lecture 14 - Orthographic Projections - Introduction to Projection of Lines Lecture 15 - Locus of Points Lecture 16 - Projection of lines parallel to both the reference planes Lecture 17 - Projection of line parallel to one and perpendicular to another plane Lecture 18 - Projection of lines inclined to one plane Lecture 19 - Projection of lines inclined to both the planes Lecture 20 - Projection of a point and line on auxiliary plane Lecture 21 - Projection of a plane perpendicular to both the reference planes Lecture 22 - Projection of a plane perpendicular to one and parallel to another plane Lecture 23 - Projection of a plane inclined to one and perpendicular to the other plane Lecture 24 - Projection of a plane inclined to both the reference planes - I Lecture 25 - Projection of a plane inclined to both the reference planes - II Lecture 26 - Introduction to types of solids Lecture 27 - Projection of solids in simple positions Lecture 28 - Projection of solids with axis inclined to one of the reference planes and parallel to another Lecture 29 - Projection of solids with axis inclined to both the reference planes

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Lecture 30 - Projection of spheres Lecture 31 - Orthographic Projections Introduction to Sections of Solids Lecture 32 - Orthographic Projections Sections of Prisms Lecture 33 - Orthographic Projections Sections of Pyramids Lecture 34 - Orthographic Projections Sections of Cylinders Lecture 35 - Orthographic Projections Sections of Cones Lecture 36 - Orthographic Projections Sections of Spheres Lecture 37 - Development of Surfaces - I Lecture 38 - Development of Surfaces - II Lecture 39 - Intersection of Surfaces - I Lecture 40 - Intersection of Surfaces - II

NPTEL Video Course - Architecture - NOC: Introduction to Urban Planning Subject Co-ordinator - Prof. Harshit Sosan Lakra Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Conceptual Understanding of the Urban Areas Lecture 2 - Urbanization and Sustainable Development Lecture 3 - Urban Planning and 73-74 Constitution Amendment Acts Lecture 4 - Types and Level of Plans Lecture 5 - Regional Plan - I Lecture 6 - Regional Plan - II Lecture 7 - Development Plan - I Lecture 8 - Development Plan - II (Case Study- Draft Bhopal Development Plan 2031) Lecture 9 - Zonal Plan Lecture 10 - Town Planning Scheme Lecture 11 - Local Area Plan (Urban Redevelopment Plan) Lecture 12 - Special Purpose Plan (AMRUT) Lecture 13 - Special Purpose Plan (HRIDAY) Lecture 14 - Special Purpose Plan (Smart City) Lecture 15 - Perspective Plan (Agenda 2030 SDGs) Lecture 16 - Contextualizing Cities (Egyptian, Mesopotamian, and Indus Valley Civilization) Lecture 17 - Contextualizing Cities (Vedic Period) Lecture 18 - Contextualizing Cities (Greek and Roman) Lecture 19 - Contextualizing Cities (Industrial Revolution) Lecture 20 - Contextualizing Cities (1900-1939) Lecture 21 - Contextualizing Cities (1940-1979) Lecture 22 - Contextualizing Cities (1980-2021) Lecture 23 - Public Health and Urban Planning - I Lecture 24 - Public Health and Urban Planning - II Lecture 25 - Public Health and Urban Planning - III Lecture 26 - Public Health and Urban Planning - IV Lecture 27 - Housing Issues in India Lecture 28 - Culture and Planning of Cities Lecture 29 - Urbanization and Environmental Problems

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- Lecture 30 Urbanization and Slums
- Lecture 31 Introduction to Planning Legislation
- Lecture 32 Evolution and Growth of Planning Legislation I
- Lecture 33 Evolution and Growth of Planning Legislation II (USA)
- Lecture 34 Evolution and Growth of Planning Legislation III (India)
- Lecture 35 Land Acquisition Act
- Lecture 36 Legal Requirements for Industrial Development
- Lecture 37 National Environmental Legal Requirements
- Lecture 38 Section I Cantonment Act and Section II Legal Requirement for Heritage Conservation
- Lecture 39 Zoning Regulation
- Lecture 40 Contemplating Learning Outcomes and Future Direction in Urban Planning

NPTEL Video Course - Architecture - NOC:Engineering, Architectural Graphics - Part II (Isometric and Axonomet Subject Co-ordinator - Prof. Avlokita Agrawal Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to isometric projection and isometric Scale Lecture 2 - Isometric projection of planar figures - quadrilaterals Lecture 3 - Isometric projection of planar figures - circles, semi circles and curves Lecture 4 - Isometric projection of straight prisms Lecture 5 - Isometric projection of straight pyramids Lecture 6 - Isometric projection of Straight Cylinders Lecture 7 - Isometric projection of Cones Lecture 8 - Isometric projection of Frustums of cones and pyramids Lecture 9 - Isometric projection of section of solids Lecture 10 - Isometric projection of spheres Lecture 11 - Isometric projection of combination of solids Lecture 12 - Isometric Projection of intersecting solids Lecture 13 - Converting orthographic views to isometric drawing - 1 Lecture 14 - Converting orthographic views to isometric drawing - 2 Lecture 15 - Converting Isometric drawing to orthographic views Lecture 16 - Introduction to axonometric projection Lecture 17 - Axonometric projection of planar figures- quadrilaterals, circles and curves Lecture 18 - Axonometric projection of prisms and pyramids Lecture 19 - Axonometric projection of Cylinders, cones and spheres Lecture 20 - Axonometric projection of intersecting solids and combination of solids

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NPTEL Video Course - Architecture - NOC: Environmental Impact Assessment
Subject Co-ordinator - Prof. Harshit Sosan Lakra
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - State of Global Environment (Air)
Lecture 2 - State of Global Environment (Biodiversity)
Lecture 3 - State of Global Environment (Oceans and Coasts)
Lecture 4 - State of Global Environment (Land and Soil)
Lecture 5 - State of Global Environment (Freshwater)
Lecture 6 - Definition, Process and Purpose of EIA
Lecture 7 - EIA Impact Areas, Current and Emerging - Part 1
Lecture 8 - EIA Impact Areas, Current and Emerging - Part II
Lecture 9 - EIA Origin in USA and World-Wide Development
Lecture 10 - EIA in India
Lecture 11 - World Sustainable Development Timeline (1970-1999)
Lecture 12 - World Sustainable Development Timeline (2000-2021)
Lecture 13 - EIA Law, Policy and Institutional arrangements for EIA systems - Part I
Lecture 14 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part II - Air
Lecture 15 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part III - Air
Lecture 16 - EIA Law, Policy and Institutional arrangements for EIA Systems - Part IV - Water and Geology
Lecture 17 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part V - Ecology
Lecture 18 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part VI - Coastal Ecology and (
Lecture 19 - EIA Law, Policy and Institutional arrangements for EIA Systems - Part VII - Noise
Lecture 20 - EIA Law, Policy and Institutional arrangements for EIA Systems - Part VIII - Ecosystem Services
Lecture 21 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part IX - Cultural Heritage and
Lecture 22 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part X
Lecture 23 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part XI
Lecture 24 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part XII
Lecture 25 - EIA Law, Policy and Institutional Arrangements for EIA Systems - Part XIII
Lecture 26 - EIA Process - Starting and Initial Stage
Lecture 27 - EIA Process - Impact Prediction
Lecture 28 - EIA Process - Impact Evaluation, Mitigation and Enhancement
Lecture 29 - EIA Process - Participation, Presentation and Review
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Lecture 30 - EIA Process - Follow-Up (Monitoring and Auditing) Lecture 31 - EIA Methods - Air Assessment - Part I Lecture 32 - EIA Methods - Air Assessment - Part II Lecture 33 - EIA Methods - Water Assessment Lecture 34 - EIA Methods - Soil, Land and Geology Lecture 35 - EIA Methods - Climate and Climate Change - Part I Lecture 36 - EIA Methods - Climate and Climate Change - Part II Lecture 37 - EIA Methods for Ecology (Definitions and Concepts) Lecture 38 - EIA Methods for Ecology (Baseline Study) Lecture 39 - EIA Methods for Ecology (Impact Prediction and Evaluation) Lecture 40 - EIA Methods - Ecosystem Services - Part I Lecture 41 - EIA Methods - Ecosystem Services - Part II Lecture 42 - EIA Methods - Coastal Ecology and Geomorphology - Part I Lecture 43 - EIA Methods - Coastal Ecology and Geomorphology - Part II Lecture 44 - EIA Methods - Noise Lecture 45 - EIA Methods - Transport Lecture 46 - EIA Methods - Landscape and Visuals Lecture 47 - EIA Methods - Cultural Heritage Lecture 48 - EIA Methods - Health Lecture 49 - EIA Methods - Socio-Economic Impacts (SIA) - Part I Lecture 50 - EIA Methods - Socio-Economic Impacts (SIA) - Part II Lecture 51 - EIA Methods - Land Acquisition, Resettlement and Livelihoods Lecture 52 - EIA Methods - Resource Efficiency Lecture 53 - EIA Methods - Risk and Risk Assessment Lecture 54 - EIA Methods - Cumulative Effects Lecture 55 - EIA - Environmental Management Plans Lecture 56 - EIA - Widening the scope: Strategic Environmental Assessment Lecture 57 - EIA - Reporting and Review of EIA Quality Lecture 58 - EIA Case Study - Mumbai Metro Line 3, Colaba - Bandra - SEEPZ Lecture 59 - EIA Case Study - Development of Water Aerodrome, Andaman and Nicobar - Part - I Lecture 60 - EIA Case Study - Development of Water Aerodrome, Andaman and Nicobar - Part - II

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NPTEL Video Course - Architecture - NOC: Modern Indian Architecture Subject Co-ordinator - Prof. P.S. Chani Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction - Part 1 Lecture 2 - Introduction - Part 2 Lecture 3 - Pre-Independence - Part 1: Indo-Saracenic Architecture Lecture 4 - Pre-Independence - Part 2: Colonial Architecture and Art Deco Lecture 5 - Pre-Independence to Independence - Part 1 Lecture 6 - Pre-Independence to Independence - Part 2 Lecture 7 - Revivalism Lecture 8 - The First Generation (1945-1970) - Part 1 Lecture 9 - The First Generation (1945-1970) - Part 2 Lecture 10 - The First Generation (1945-1970) - Part 3 Lecture 11 - The First Generation (1945-1970) - Part 4 Lecture 12 - The First Generation (1945-1970) - Part 5 Lecture 13 - The First Generation (1945-1970) - Part 6 Lecture 14 - Impact of Western Architects: Le Corbusier - Part 1 Lecture 15 - Impact of Western Architects: Le Corbusier - Part 2 Lecture 16 - Impact of Western Architects: Le Corbusier - Part 3 Lecture 17 - Impact of Western Architects: Le Corbusier - Part 4 Lecture 18 - Impact of Western Architects: Le Corbusier - Part 5 Lecture 19 - Impact of Western Architects: Le Corbusier - Part 6 Lecture 20 - Impact of Western Architects: Walter Gropius - Part 1 Lecture 21 - Impact of Western Architects: Walter Gropius - Part 2 Lecture 22 - Impact of Western Architects: Louis I Kahn - Part 1 Lecture 23 - Impact of Western Architects: Louis I Kahn - Part 2 Lecture 24 - Impact of Western Architects: Louis I Kahn - Part 3 Lecture 25 - Impact of Western Architects: Louis I Kahn - Part 4 Lecture 26 - Introduction to Critical Regionalism - Part 1 Lecture 27 - Introduction to Critical Regionalism - Part 2 Lecture 28 - Critical Regionalism in Indian Architecture - Part 1 Lecture 29 - Critical Regionalism in Indian Architecture - Part 2

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Lecture 30 - Critical Regionalism in Indian Architecture - Part 3 Lecture 31 - Critical Regionalism in Indian Architecture - Part 4 Lecture 32 - Critical Regionalism in Indian Architecture - Part 5 Lecture 33 - Structure: The Works of Mahendra Raj Lecture 34 - Point-Blocks and High Rises - Part 1 Lecture 35 - Point-Blocks and High Rises - Part 2 Lecture 36 - Search for a new Architecture - Part 2 Lecture 37 - Search for a new Architecture - Part 2 Lecture 38 - Search for a new Architecture - Part 3 Lecture 39 - Search for a new Architecture - Part 4 Lecture 40 - Search for a new Architecture - Part 5

NPTEL Video Course - Architecture - NOC:International Studies in Vernacular Architecture Subject Co-ordinator - Prof. Ram Sateesh Pasupuleti Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Culture, Identity and Built Environment Lecture 2 - Space and Meaning in Balinese Vernacular Architecture Lecture 3 - Adobe Construction and Religious Structures Lecture 4 - Social System, Beliefs and its Architecture Lecture 5 - Anthropology of Shelter-Conclusion Lecture 6 - Stone as a Vernacular Resource Material Lecture 7 - Earth as Vernacular Resource Material Lecture 8 - Bamboo as Vernacular Resource Material Lecture 9 - Timber as Vernacular Resource Material Lecture 10 - Advanced Material Adaptations: The conclusion Lecture 11 - Cultural Geography and Vernacular Architecture Lecture 12 - Cultural Geography and Small-scale Features in the Landscape Lecture 13 - Acculturation in Architecture Lecture 14 - Tradition and Transmission Lecture 15 - Transformation in Vernacular Context Lecture 16 - Disasters Vulnerability and Traditions Lecture 17 - Learning Disaster Mitigation from the Vernacular Lecture 18 - The Second Birth: Lessons from Disaster Recovery Lecture 19 - Climate Change and Traditions

Lecture 20 - Yonmenkaigi (Four square table system) Method for Collaborative Knowledge Development

NPTEL Video Course - Architecture - NOC:Introduction to Interaction Design Subject Co-ordinator - Dr. Sonal Atreya Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Interaction Design Lecture 2 - Components of Interaction Design Lecture 3 - Interaction Design Process Lecture 4 - Understanding User Lecture 5 - Conceptual Design - Part 1 Lecture 6 - Conceptual Design - Part 2 Lecture 7 - Role of Cognition Lecture 8 - Role of Social Interaction Lecture 9 - Designing for Emotional Interaction Lecture 10 - Interactive Interfaces Lecture 11 - Data Gathering Lecture 12 - Data Analysis Lecture 13 - Discovering Requirements Lecture 14 - User Personas and Scenarios Lecture 15 - Design and Prototyping - Part 1 Lecture 16 - Design and Prototyping - Part 2 Lecture 17 - Visual Interface Design Lecture 18 - Elements of User Interface Lecture 19 - Affordances and UI Transformations Lecture 20 - Component-Based Design Systems

NPTEL Video Course - Architecture - NOC: Understanding and Reducing Ghg Emissions - Focus on Scope 1 and 2 Emi Subject Co-ordinator - Prof. Avlokita Agrawal Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable Lecture 1 - Introduction, Sustainability, And Sustainable Development Lecture 2 - Sustainable Development And Sustainable Goals Lecture 3 - Sustainable Development Goals and Climate Change Lecture 4 - Climate Risk Lecture 5 - Impact of Development on Climate Natural Components Lecture 6 - UNFCCC Lecture 7 - Kyoto Protocol Lecture 8 - The Paris Agreement Lecture 9 - Green House Gases Lecture 10 - Carbon Footprint and Calculation Lecture 11 - The GHG Protocol Lecture 12 - ISO International Standards Lecture 13 - Identification and Determination of Scope 1,2 and 3 GHG Emissions Lecture 14 - Identification and Determination of Scope 1,2 and 3 GHG Emissions - Part II Lecture 15 - Identification and Determination of Scope 1,2 and 3 GHG Emissions - Part III Lecture 16 - India Specific GHG Programs - I Lecture 17 - India Specific GHG Programs - II Lecture 18 - Accounting Methods and Data Collection Lecture 19 - Tools for Calculation of GHG Lecture 20 - Understanding the Role of Buildings and Related Emissions Lecture 21 - Understanding Emissions of Airports Lecture 22 - Understanding Emissions of University Campuses Lecture 23 - Understanding Emissions of Fuel Supply Companies Lecture 24 - Understanding Emissions of IT Companies Lecture 25 - Understanding Emissions of Real Estate Companies Lecture 26 - Thermal Comfort in Building Lecture 27 - Passive Design Measures Lecture 28 - Advanced Passive Design Measures Lecture 29 - Natural and Mechanical Ventilation

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Lecture 30 - Daylighting and Lighting Design Lecture 31 - Factors Affecting Material Selection in Building? Lecture 32 - Material Selection for Emission Reduction Lecture 33 - Reducing Emission from purchased Electricity Lecture 34 - Strategies of Renovation and Retrofitting for Emission Reduction Lecture 35 - Case studies of Various Efficient Building Design Lecture 36 - Calculation of Emissions Reduction from HVAC System Lecture 37 - Calculation of Emission Reduction from Fenestration Lecture 38 - Calculation of Emission Reduction from Building Envelope Lecture 39 - Calculation of Emission Reduction from Source of Energy Lecture 40 - Course Summary

NPTEL Video Course - Architecture - NOC:Research Methodology for Planning and Architectural Studies Subject Co-ordinator - Prof. Shubhajit Sadhukhan Co-ordinating Institute - IIT - Roorkee Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction Lecture 2 - Types of Research Lecture 3 - Qualitative vs. Quantitative Research Lecture 4 - Research Methods vs Research Methodology Lecture 5 - Issues and Challenges in Planning and Architectural Research Lecture 6 - Research Process - I Lecture 7 - Research Process - II Lecture 8 - Research Process - III Lecture 9 - Research Writing - I Lecture 10 - Research Writing - II Lecture 11 - Basics of Literature Review Lecture 12 - Bibliometric Analysis Lecture 13 - Systematic Literature Review Lecture 14 - Meta Analysis Lecture 15 - Referencing Lecture 16 - Types of Data in Research Lecture 17 - Measurement and Scaling Techniques - I Lecture 18 - Measurement and Scaling Techniques - II Lecture 19 - Types of Surveys - I Lecture 20 - Types of Surveys - II Lecture 21 - Determining the Sample Size Lecture 22 - Sampling Techniques - I Lecture 23 - Sampling Techniques - II Lecture 24 - Sources of Data Lecture 25 - Preparation of Survey Questionnaire Lecture 26 - Methods of Data Collection - I Lecture 27 - Methods of Data Collection - II Lecture 28 - Methods of Data Collection - III Lecture 29 - Ethics in Data Management and Use

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Lecture 30 - Similarity vs. Plagiarism Lecture 31 - Processing of Data and Database Management Lecture 32 - Interpreting Data Lecture 33 - Descriptive Statistics Lecture 34 - Representation of Data and Inferences - I Lecture 35 - Representation of Data and Inferences - II Lecture 36 - Hypothesis Testing Lecture 37 - Parametric Tests Lecture 38 - Non-parametric Tests Lecture 39 - Quantitative Research Approach Lecture 40 - Quantitative Research - Case Study - I Lecture 41 - Quantitative Research - Case Study - II Lecture 42 - Quantitative Research - Case Study - III Lecture 43 - Quantitative Research - Case Study - IV Lecture 44 - Quantitative Research - Case Study - V Lecture 45 - Qualitative Research Approach Lecture 46 - Qualitative Research - Case Study - I Lecture 47 - Qualitative Research - Case Study - II Lecture 48 - Qualitative Research - Case Study - III Lecture 49 - Qualitative Research - Case Study - IV Lecture 50 - Qualitative Research - Case Study - V Lecture 51 - Mixed Method Research Approach Lecture 52 - Mixed Method Research Approach - Case Study Lecture 53 - Spatial Methods in Planning Research Lecture 54 - Spatial Methods in Planning Research - Case Study Lecture 55 - Research Methods for Behavioral Studies - The Basics Lecture 56 - Simulation Based Studies in Planning and Architecture Lecture 57 - Handling Big Data Research - The Basics Lecture 58 - Role of AI in Architecture and Planning Studies - The Basics Lecture 59 - Programming Language and Software for Research in Planning and Architecture Lecture 60 - Emerging Research Potential in Planning and Architecture

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