

[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](#)

[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 \(Continued...\)](#)

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 : Degrees of Intervention

Lecture 11 - Divergent Approaches for Managing and Rehabilitating Heritage Properties : Degrees of Intervention (Continued...)

Lecture 12 - Divergent Approaches for Managing and Rehabilitating Heritage Properties : Degrees of Intervention (Continued...)

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 : A Demonstration Example

Lecture 27 - Investigation and Conservation of Historic Structures : Case Study 1

Lecture 28 - Investigation and Conservation of Historic Structures : Case Study 2 (Part a)

Lecture 29 - Investigation and Conservation of Historic Structures : Case Study 2 (Part b)

Lecture 30 - Conservation of Historic Structures : Maintenance and Repair

Lecture 31 - Conservation of Historic Structures : Maintenance and Repair (Continued...)

[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: Heritage tourism, sustainability and way forward](#)

- 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: Some Examples
- 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
- 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: Planning Consideration - I](#)

[Lecture 39 - Urban Noise Control: Planning Consideration - II](#)

[Lecture 40 - Urban Noise Control: Architectural Consideration](#)

- 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: procurement details, properties, classification
- 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
- 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 \(Continued...\)](#)



[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 \(Continued...\)](#)

[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 \(Continued...\)](#)

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: Special Cases

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 - Indeterminate Beams and Frames

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

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 Flat 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](#)

- 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
- 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: Theory](#)
- [Lecture 52 - Urban Freight Planning: Demand Modelling](#)
- [Lecture 53 - Urban Freight Planning: Logistics](#)
- [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](#)

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

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



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

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

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 Sultanates

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

Lecture 1 - Strategies for Sustainable Design - Welcome Lectuer

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

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 International Design Projects](#)

[Lecture 43 - Summary](#)

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: Transport and Roads

Lecture 20 - Housing Infrastructure and Services-2: Drainage, Sanitation, Electricity and SWM

Lecture 21 - Housing Infrastructure and Services-3: Social Infrastructure and Facilities

Lecture 22 - Housing Strategy for City-1: An overview

Lecture 23 - Housing Strategy for City-2: Dealing with Core City Housing

Lecture 24 - Housing Strategy for City-3: Dealing with New Housing Areas

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

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: Action Plan](#)

[Lecture 40 - Course Summary and Conclusion](#)

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 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



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: Design for 'ALL' Perspective

Lecture 11 - Power in Built Form

Lecture 12 - Spatial Analysis: Know-how power mediates in Built Form

Lecture 13 - The Forbidden Space

Lecture 14 - Religious Architecture: A Continuum of Meaning

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: Reassembled

Lecture 19 - Understanding the Cultural Context in Disasters and Development

Lecture 20 - Culture, Climate Change Adaptation And Disaster Risk Reduction

Lecture 21 - Conservation: Introduction

Lecture 22 - Conservation: Principles

Lecture 23 - Learning from Vernacular: Conservation Practices and Challenges

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?

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](#)

Lecture 1 - Introduction

Lecture 2 - World Architecture and Design History

Lecture 3 - Industrial Revolution and Beginning of Modern Era

Lecture 4 - Post Industrial Revolution: For the Machine Movement

Lecture 5 - Post Industrial Revolution: Against the Machine Movement - Art and Craft Movement and Art Nouveau - Part 1

Lecture 6 - Post Industrial Revolution: Against the Machine Movement - Art and Craft Movement and Art Nouveau - Part 2

Lecture 7 - Post Industrial Revolution: Against the Machine Movement - Art and Craft Movement and Art Nouveau - Part 3

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

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 II](#)

[Lecture 38 - Phases of Post Modern Architecture - Pop Art](#)

[Lecture 39 - Evolution of Typography in Contemporary Era](#)

[Lecture 40 - Phases of Post Modern Architecture - Industrial Design](#)

Lecture 1 - Interior-Architecture: Definition and Understanding

Lecture 2 - Craft: Definition and Understanding (Varied Perspectives on Art and Craft)

Lecture 3 - Interior-Architecture and Craft and Technology: Establishing Inter-Relationships

Lecture 4 - Interior-Architecture and Craft and Technology: Exploring Applications

Lecture 5 - Summary and Discourse - I

Lecture 6 - Interior-Architecture: Documenting Knowledge and Skills

Lecture 7 - Traditional Knowledge Systems and the Ingenious skills of the communities

Lecture 8 - Interior-Architecture: Documenting Materials; Tools and Techniques

Lecture 9 - Traditional Knowledge Systems and the Indigenous materials; tools and techniques

Lecture 10 - Summary and Discourse - II

Lecture 11 - Creative and Cultural Industries: Understanding Definition; Significance and Scope

Lecture 12 - Building Crafts: Definitions; Perspectives and Frameworks

Lecture 13 - Building Crafts: Craft and Technology and its Role in Creating/Enhancing Interior-Architecture

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: Decoding Systems

Lecture 22 - Craft and Technology in Interior Architecture; Decoding Systems

Lecture 23 - Craft and Technology in Interior Architecture: Transformation through Time

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: Issues and Challenges

Lecture 28 - Craft Sector: Policies and Reforms

Lecture 29 - Craft Sector: Gaps

Lecture 30 - Summary and Discourse - VI

Lecture 31 - Continuity and Revival: Research and Documentation Perspective

[Lecture 32 - Continuity and Revival: Education and Training Perspective](#)

[Lecture 33 - Continuity and Revival: Innovation and Development Perspective](#)

[Lecture 34 - Continuity and Revival: Resource Building and Dissemination Perspective](#)

[Lecture 35 - Summary and Discourse - VII](#)

[Lecture 36 - Interventions: Process Based](#)

[Lecture 37 - Interventions: Product / Design Based](#)

[Lecture 38 - Interventions: Technology Based](#)

[Lecture 39 - Interventions: Marketing / Management Based](#)

[Lecture 40 - Summary and Discourse - VIII](#)

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

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: Concept and Mission

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



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

Lecture 1 - Disaster risk: Hazards X Exposure X Vulnerability

Lecture 2 - Disaster Recovery and Build Back Better: Risk Perception and Disaster Risk Preparedness - Part 1

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: Reassembled

Lecture 10 - Rock shelters at risk

Lecture 11 - The Built Environment Professions in Disaster Risk Reduction and Response

Lecture 12 - Gadri discussions: social dimension of risk, health and DRM

Lecture 13 - Community Participation in Disaster Risk Governance : Voices from Mumbai and Ghana

Lecture 14 - Community Participation in Disaster Risk Governance : Insights From Mumbai

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 : What Pioneers Contribute ?

Lecture 20 - Cities and Climate Change: Adaptation and Mitigation

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

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: Case of Tibetan refugees](#)

[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](#)

- 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: Impacts on Water
- Lecture 7 - Environmental Impacts of Development: Impacts on Land and Air
- 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
- 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

- 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
- 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](#)

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 Involutives

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

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](#)

- 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
- 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](#)

- 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

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 Geomorphology

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 Health

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

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](#)

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

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 1](#)

[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](#)



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

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 : NOC:Understanding and Reducing Ghg Emissions - Focus on Scope 1 and 2 Emission Reduction through Building Design and Construction (Architecture)**

**Co-ordinators : Prof. Avlokita Agrawal**

- 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
- 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](#)