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NPTEL : NOC:User Interface Design (Architecture)

Co-ordinators : Prof. Saptarshi Kolay

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Lecture 16 - Design Semiotics and Visual Perception

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NPTEL : NOC:Disaster Recovery and Build Back Better (Architecture)

Co-ordinators : Prof. Subhojyothi Samaddar

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Lecture 4 - Build Back Better - People's Perspectives

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

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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

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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)

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- Lecture 5 - Pioneers of Sustainable Development
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- Lecture 9 - Agenda 21 and UN Goals
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[Lecture 14 - Structural Forms and Shapes](#)

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[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 Involute

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 I

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

NPTEL : NOC:Introduction to Interaction Design (Architecture)

Co-ordinators : Dr. Sonal Atreya

[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](#)

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

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](#)