UNIT 1: Introduction to Smart City 3.0

1.5. Urban Design

Duration: 60 minutes

Teaching Topic:

– Introduction to Urban Design:

Urban design is the practice of planning and shaping cities to create functional, attractive, and sustainable urban environments. It involves arranging buildings, public spaces, transportation systems, and infrastructure to enhance the quality of life for residents. Originating from ancient civilizations, urban design gained prominence in the 20th century due to urbanization challenges. Key objectives include creating human-scale environments, fostering connectivity, promoting mixed land uses, incorporating green spaces, celebrating cultural heritage, and facilitating economic development. Collaboration among various professionals and stakeholders is essential in urban design projects, ranging from masterplans to streetscapes. In today's era of rapid urbanization and climate change, urban design plays a critical role in shaping resilient, inclusive, and livable cities for present and future generations.

Sub-Topic 1: Concept, Development, History of Urban Design

Duration: 25 minutes

– Concept:

The concept of urban design involves purposefully planning urban spaces to create livable, attractive, and sustainable environments. It focuses on arranging buildings, streets, public areas, and infrastructure to enhance the quality of life for residents while considering social, economic, and environmental aspects. Urban design aims to promote pedestrian-friendly environments, connectivity, mixed land uses, green spaces, cultural inclusivity, and economic vitality. Through strategic planning and collaboration among professionals and stakeholders, urban design seeks to address the challenges of urbanization while creating resilient and vibrant cities.

- **Development:**

The development of urban design began with ancient civilizations' intentional planning of cities. However, it gained prominence in the 20th century due to urbanization challenges. Urban design evolved as a response to rapid urban growth, addressing issues like congestion, sprawl, and environmental degradation. Key milestones include the emergence of modern planning movements, such as the Garden City and City Beautiful movements, and the rise of influential urban designers like Ebenezer Howard and Le Corbusier.

Today, urban design continues to evolve, integrating principles of sustainability, inclusivity, and resilience to shape the future of cities.

–History:

The history of urban design traces back to ancient civilizations' intentional city planning. It gained prominence in the 20th century in response to urbanization challenges. Influenced by movements like the Garden City and City Beautiful, modern urban design emerged. Notable figures such as Ebenezer Howard and Le Corbusier shaped its development. Today, urban design continues to evolve, incorporating sustainability and inclusivity to address contemporary urban challenges.

Sub-Topic 2: Principles of Urban Design

Duration: 25 minutes

–Principles of Urban Design:

The principles of urban design are:

1. Human Scale: Designing spaces to cater to the needs and comfort of pedestrians, promoting walkability and social interaction.

2. Connectivity: Establishing well-connected networks of streets, pathways, and public transit to facilitate movement within and between urban areas.

3. Mixed Land Uses: Encouraging a diverse mix of residential, commercial, cultural, and recreational activities to create vibrant and dynamic communities.

4. Green Spaces and Sustainability: Incorporating green infrastructure, parks, and sustainable design practices to enhance environmental quality and resilience to climate change.

5. Cultural Heritage and Social Inclusivity: Celebrating cultural diversity, preserving historic landmarks, and fostering social cohesion by designing inclusive and accessible public spaces.

6. Economic Viability: Supporting economic growth and prosperity through strategic urban interventions that attract investment, create job opportunities, and enhance the urban fabric.
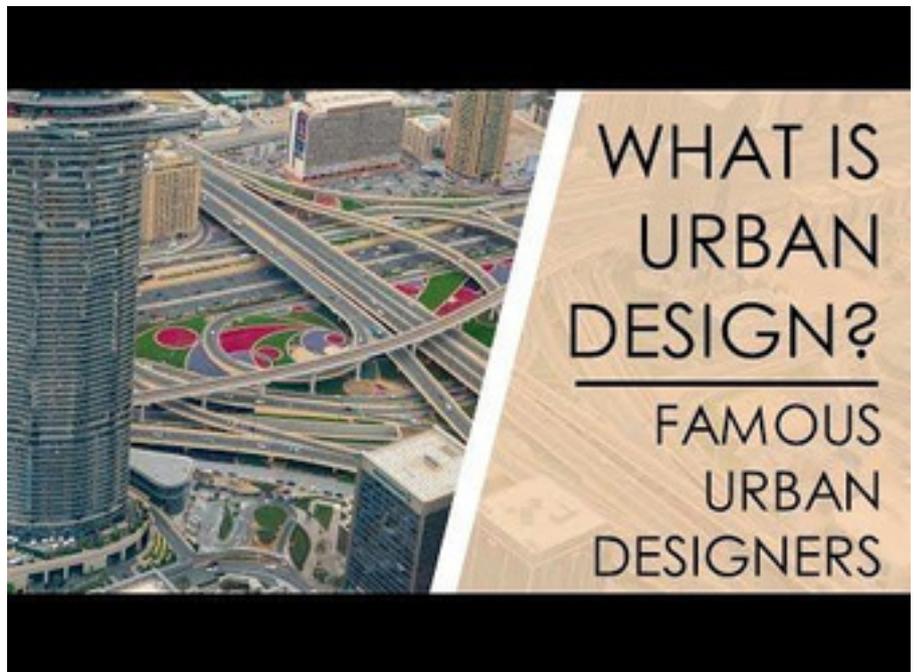
Learning Aims:

1. To understand the concept, development, and historical evolution of urban design.

2. To explore the fundamental principles underlying effective urban design.

Methodology:

Learning Video: (10 minutes)

- Introduction to Urban Design: A brief overview video covering the concept, development, and historical background.

Materials:

– Internet Connection for accessing online resources and case studies.

- Laptop or Smartphone for displaying presentation and accessing online content.

References:

https://www.udg.org.uk/about/what-is-urban-design

https://en.wikipedia.org/wiki/Urban_design

https://www.sciencedirect.com/topics/earth-and-planetary-sciences/urban-design

Video material