DESIGN OF SMART CITIES SYLLABUS

Module 1: Smart City

- Smart City Overview
- Complexities of Smart Cities
- Urban Network
- Sensor Network
- Role of Urban Networks
- Trends in Urban Development
- Community Resource Sensing

Module 2: Urban Planning

- Urban Planning Fundamentals
- Databases for Urban Planning
- Principles of Urban Planning
- Data Organization
- Role of Planning in Smart Cities
- Case Studies

Module 3: Energy Sustainability in Smart Cities

- Energy and Decision Making
- Energy as a Catalyst for Sustainable Transformation
- Cohesion and Efficiency in Smart Cities

Module 4: Security, Privacy, and Ethics in Smart Cities

- Security Challenges in Smart Cities
- Security Threats in Smart Cities
- IoT-Related Safety Measures for a Safer Smart City

Module 5: Smart Cities Planning and Development

- City Planning
- Understanding Smart Cities
- Dimensions of Smart Cities
- Global Standards and Performance Benchmarks for Smart Cities
- Financing Smart City Development
- Governance of Smart Cities

Module 6: Process Control and Stabilization

- Structural Concepts
- Specific Applications
- Structural Health Monitoring
- Process Control and Stabilization
- Internet of Vehicles (IoV)
    - Importance
    - Applications
    - Security Issues
- Perspectives on Intelligent Transport Systems (ITS)
    - ITS Highway Safety Perspective
    - Environmental Aspects of ITS

Module 7: Project Management in Smart Cities

- Case Studies on Project Management
    - Web Application Implementation
    - Mobile-Based Implementation