



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

SHRI VAISHNAV INSTITUTE OF PLANNING M. PLAN (URBAN PLANNING)

COURSE CODE	COURSE AREA	COURSE TYPOLOGY	COURSE NAME	TEACHING SCHEME/WEEK			CREDITS	EXAMINATION SCHEME					
				L	T	S		THEORY			STUDIO		TOTAL MARKS
								Two -Term Exam (20%) (MST)	Teacher's Assessment (20%) (SS)	End Sem University Exam (50%) (ESUE)	Internal Assessment (50%) (IA)	External Viva (50%) (EV)	
GEMPLN318	PL	THEORY	SMART CITIES: FROM CONCEPTS TO IMPLEMENTATION	3	-	-	3	20	20	60	-	-	100

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; S – Studio; C - Credit;

***Teacher Assessment** shall be based on the following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed 10 marks.

Course Educational Objectives (CEOs):

- Understand the fundamental concepts and principles of smart cities.
- Explore the latest technological innovations driving smart city initiatives, such as the integration of digital technologies, sustainable urban development, IoT, and renewable energy solutions, and assess their potential impact on urban environments.
- Analyze urban challenges and evaluate how smart city solutions can address issues related to transportation, energy consumption, waste management, pollution, and more.
- Study Successful Smart City Projects: Review case studies of existing smart city projects in terms of understanding their goals, implementation strategies, and outcomes to derive insights for future smart city initiatives.

Course Outcomes (COs):

After completion of this course, the students are expected to be able to demonstrate the following knowledge, skills, and attitudes.

The students will be able to

- Demonstrate a comprehensive understanding of smart cities' key concepts, principles, and components.
- Evaluate and apply the latest technological innovations and solutions driving smart city initiatives to address specific urban challenges effectively.
- Analyze and critically assess smart city projects' potential social, economic, and environmental impacts, considering citizen well-being, economic growth, and environmental sustainability.
- Formulate informed and ethical perspectives on smart city development, incorporating considerations of responsible governance practices.



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Syllabus

Unit I

10 HRS

INTRODUCTION

Definition of a smart city; need for smart cities; Introduction to Smart Cities Mission in India - its objectives and vision; Smart Cities framework; Status of cities in Indian context under Smart Cities Mission; the process of undertaking the cities to be smart cities

Unit II

9 HRS

CHALLENGES BEFORE INDIAN SMART CITIES

Mobility of Population; Transportation Management; Energy Management; Information and Communication Technology; Land Acquisition and its Process; Challenges for Smart City in north-eastern States

Unit III

7 HRS

SMART CITY INITIATIVES IN A GLOBAL CONTEXT

Examining the Worldwide and European Scenarios, Analyzing Data from Global Examples, and Comparing Case Studies from Around the World.

Unit IV

8 HRS

SMART CITIES: INDIAN SCENARIO

Identifying the Smart Cities; Process of selection of Smart Cities, case Examples of Lavasa: India's first fully planned hill city, Kochi: Kerala, Haldia: West Bengal, Gujarat International Finance Tech City (GIFT); Smart City activities in other locations

Unit-V

8 HRS

POLICIES & REGULATIONS

The funding pattern for the Smart Cities; the nature and extent of central government support; government initiatives; tendering for Smart Cities; Proposed benchmarks for Smart Cities.



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References Readings:

- Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines, Volume I & II (A&B)
- Smart Cities for Sustainable Development - Ram Kumar Mishra, Ch. Lakshmi Kumari, Sandeep Chachra, P.S. Janaki.
- Smart Cities For Dummies - Jonathan Reichenal
- Smart Cities in India - TERI
- Making a City Smart - MOHUA, GOI
- India's Smart City Program: Challenges and Opportunities - Centre for Sustainable Development, Columbia University
- Understanding Smart Cities: An Integrative Framework - Hafedh Chourabi

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