



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code 3724815

Semester – II

Subject Name: Smart Metropolitan Planning

Type of course: Program Elective - III

Prerequisite: Basic understanding on concept of smart city and metropolitan city planning terminology.

Rationale: The course helps developing an understanding on smart city and metropolitan planning concept and its problems and issues for the same.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No	Content	Total Hrs
1	Urban Growth and System of Smart Cities Growth of smart cities, complexity and its impact on national development, cities as engines of growth, cities as ecosystems, cities towards smart development.	12
2	City – Region Linkages City, fringe and the periphery - physical and functional linkages, peri-urban development.	14
3	Metro and Smart Cities: Problems and Issues Growth trends and processes, characteristics, problems, concepts and concerns of urban sustainability, issues related to diversity and unintended growth, economic, social and environmental sustainability, quality of life, inclusivity and equity, climate change, transit oriented development, participatory planning. Inner city – issues and problems, approach to development.	14
4	Human Settlement Planning, Urban Policies and Programmes for smarter development Concepts, approaches, strategies and tools; Policies and programmes at various levels, impact on metro and smart city development.	14

Reference Books:

1. Brendan Gleeson, Toni Darbas, Laurel Johnsan and Suzaanne Lawson, “ What is Metropolitan Planning?”, Griffith University (July 2004)



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Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand the concepts of Smart City and its fundamentals	25
CO-2	Metropolitan Planning will be also taken into account by the students	45
CO-3	The problems and issues pertaining to smart and metropolitan planning shall be addressed	30

List of Experiments:

- 1) Smart city concept inception in the form of report
- 2) Smart city listings and working on one smart city case study in poster format
- 3) Evaluate transportation alternatives, scaled to the size and complexity of the region, to the nature of its transportation issues, and to the realistically available options (For any potential smart city In India)

Major Equipment: Computers/ Laptop with higher configuration and internet, server. DVR system with camera and hard drive for traffic studies

List of Open Source Software/learning website:

- 1) <http://smartcities.gov.in>
- 2) <http://www.suratsmartcity.com/>
- 3) <http://www.ampo.org/>