

5th Semester	RCI5D006	Traffic Engineering	L-T-P 3-0-0	3 Credits
------------------------------------	-----------------	----------------------------	------------------------	----------------------

MODULE-I**(08 Classes)****TRANSIT SYSTEM AND ISSUES**

Introduction to Mass Transport, Role of various modes of Mass Transport, Transport System Performance at National, State, Local and International levels, National Transport Policy, Urban transportation problems and their impact, Modes of mass transit- their planning, construction and operation, Case studies of existing mass transit systems

Technical and economic evaluation of mass transit projects.

MODULE-II**(08 Classes)****PUBLIC TRANSIT SYSTEM**

Urban Transport System, Public Transport System Re-genesis and Technology, Physical performance of Public Transport System, Public Transport and Urban Development Strategies, Mass Transit concepts- Trip interchanges and assignments, Characteristics of Rail Transit, Vehicle Characteristics.

MODULE-III**(08 Classes)****BUS TRANSIT PLANNING AND SCHEDULING**

Route Planning and Scheduling, Bus Transport System, Performance and Evaluation, Scheduling, Conceptual patterns of bus service, Network Planning and Analysis, Bus Transport System Pricing, Bus Transit System Integration, Analytical Tools and Techniques for Operation and Management, Bus Rapid Transit Systems, Case Studies.

MODULE-IV**(06 Classes)****RAIL TRANSIT TERMINALS AND PERFORMANCE EVALUATION**

Performance Evaluation, Efficiency, Capacity, Productivity and Utilisation, Performance Evaluation Techniques and Application, System Network Performance, Transit Terminal Planning and Design.

MODULE-V**(10 Classes)****IMPACT OF TRANSIT**

Policies and Strategies for Mass Transport, Need for Integrated Approach, Unified Transport Authorities, Institutional arrangement, Urban Transport Fund, Parking Policies, Private Sector in Mass Transport, Bus and Rail Integration, Co-ordination of Feeder Services, Transit Oriented Land Use Development., Case Studies, Urban Transportation and Land use, Impact of Transport Development on Environment, Remedial measures, Policy Decisions, Recent Trends in Mass Transportation Planning and Management.

Books

1. Michael J.Bruton , "An Introduction to Transportation Planning", Hutchinson,1985
2. Michael D.Meyer and Eric J.Miller , "Urban Transportation Planning – A Decision Oriented Approach", McGraw Hill Book Company, New York,1984
3. F.D.Hobbs, "Traffic Planning and Design", PoargamonOress

4. John W.Dickey, "Metropolitan Transportation Planning" – Tata McGraw Hill Publishing Company Limited, New Delhi, 1980
5. Paul H.Wright, "Transportation Engineering – Planning and Design", John Wiley and Sons, New York, 1989.

Digital Learning Resources:

Course Name	Urban transportation planning
Course Link	https://nptel.ac.in/courses/105/107/105107067/
Course Instructor	Dr. M. Parida IIT Roorkee