URBAN TRANSPORT PLANNING

Course Code: 15CE2114	**L**	**P**	**C**
	3	**0**	**3**

Course Outcomes: At the end of the course, the student will be able to:

CO1: To impart the knowledge on transport planning and traffic survey fore casting.

CO2: To familiarize the student with transport economics and transport systems.

CO3: The students will demonstrate the ability to select land use transport models and economic evaluation of transport plans with the knowledge of transport economics and environment.

CO4: To impart the students, with the knowledge of transport planning process, traffic surveys and forecasting.

UNIT-I (10-Lectures)

TRANSPORT PLANNING PROCESS:

Stages of transport planning-Land use transport interaction.

TRAFFIC SURVEYS AND FORECASTING

Survey and analysis of existing conditions –Forecast analysis of future conditions –Transportation surveys analysis and application.

UNIT-II (10-Lectures)

STAGES IN TRANSPORT PLANNING:

Trip generation –theory and modeling techniques –Linear Regression Analysis-Statistical Analysis of regression analysis-Category Analysis

UNIT-III (10-Lectures)

TRIP DISTRIBUTION

Theory and modelling techniques and methodologies.-Gravity Model-Trip distribution based on growth rates.

UNIT-IV (10-Lectures)

TRIP ASSIGNMENT AND MODAL SPLIT

Trip assignment–theory and modelling techniques and methodologies. Modal split-theory and analytical techniques.

UNIT-V (10-Lectures)

LAND USE TRANSPORT MODELS: Lowry & Garin Lowry Models

TRANSPORT ECONOMICS AND ENVIRONMENT:

Economic evaluation of transport plans –Vehicle operating costs –Value of travel time savings and accident costs –Fuel crisis and promotion of public transport. Severance and land consumption-air pollution-noise.

TEXT BOOKS

1. Michael D. Meyer and Eric J. Miller, *"Urban Transportation Planning: A Decision Oriented Approach"*, 2nd Edition, McGraw-Hill Book Company, New York, 1984.
2. Dr. L.R. Kadiyali, *"Traffic Engineering and Transport Planning"*, 6thedition, Khanna Publishers, 1999.

REFERENCES

1. Thirumurthy A.M., "Environmental Facilities and Urban Development in India – A System Dynamic Model for Developing Countries, Academic Foundations, 1st Edition, India, 1992.
2. James H. Banks, "Introduction to Transportation Engineering", 2nd edition, Tata Mc Graw Hill, 1995.
3. David Hensher& others (Eds), Proceedings of Seventh World Conference on Transport Research: Volume 1–Travel Behavior, Volume 2 – Modelling Transport Systems, Volume 3 –Transport Policy, Volume 4 –Transport Management, Pergammon Press, USA, 1996.
4. John W. Dickey, "Metropolitan Transportation Planning", 2nd Edition, Tata McGraw-Hill Publishing Company Ltd, New Delhi, 1980.