INTRODUCTION

Transportation Systems are the integral part of the modern society. Efficient transportation systems are vital to the social and economic development any region. Planning, designing, constructing and managing transportation systems are time consuming and expensive. In order to effectively spend the scarcely available fund, it is important to plan the transportation facilities considering future needs. For this purpose an exhaustive travel demand model is needed which can help us to consider outcomes considering different development scenarios. Transportation systems, especially the ones which promote personalized vehicles, creates many negative externalities such as emissions, noise pollution, etc. Thus the planning has to sustainable causing minimum negative impact on the nature. Once a facility, such as a highway is constructed, managing vehicle traffic and pedestrian is another challenging tasks. It is important to understand the traffic behavior and evaluate performance and safety of these facilities. Such analysis can help to propose and assess traffic management measures such as intelligent transport systems. The topics relevant to these issues will be discussed in this course by eminent experts in the field of transportation engineering.

BROAD OBJECTIVES

This course is aimed at providing insights into the various aspects related to transportation planning and traffic management for surface transport systems. Professionals working on infrastructure related projects have good field experience, but sometimes lack the theoretical background. This course is will help to bridge the gap between theory and practice. Some recent advances in the field of transportation engineering will also be discussed. Demonstration of some popular softwares such as CUBE Voyager, VISSIM, and NLOGIT will be given. The participants will be able to perform the traditional four-stages of demand modeling process using the web-based experiments developed at IIT Bombay as part of a MHRD sponsored Virtual Lab Project. Additional discussion between participants and experts will be facilitated through panel discussion.

COURSE CONTENTS

- Introduction to Transportation Planning and four-stage demand model
- Trip Generation, Trip Distribution, Mode choice and Traffic Assignment
- Behavior modeling
- Sustainable planning
- Public Transportation Planning
- Smart Cities and Smart Transportation
- Case studies of transportation planning models
- Fundamentals of Traffic Flow
- Traffic Control at intersections
- Urban Traffic Management Methods
- Capacity and level of service (LOS) concept
- Road geometry and traffic
- Transport safety
- Overview of Cube Voyager, VISSIM, and NLOGIT packages

WHO MAY BENEFIT

Officers, Engineers and Scientists working in Civil/Transportation Engineering related areas, Research Organizations, Urban planning departments, Municipal corporations, Public Work Department, Transportation Planning bodies, Consulting companies, NGOs, and self-employed practitioners engaged in Transportation planning and traffic management. As participants are expected from all over India, this course would provide an excellent opportunity for the participants to interact with one another and discuss problems and solutions of mutual interest.

FACULTY

Most of the lectures of the course will be delivered by the faculty members of the transportation system engineering (TSE) group at IIT Bombay. They include Professors Gopal R Patil (course coordinator), K V Krishna Rao, Tom Mathew, P Vedagiri, Avijit Maji and Nagendra Velaga. Experts from industry will also be invited. The TSE group is widely recognized in the country for their expertise in transportation planning and traffic management.
LECTURE NOTES
To fully realize the objectives of the course, the lecture notes/slides will be made available to the participants at the time of registration at IIT Bombay.

VENUE
Seminar Hall, Civil Engineering Department, IIT Bombay.

ACCOMMODATION
Accommodation sharing basis is available in the Institute Guest house for a limited number of participants on payment basis and with an advance request.

IMPORTANT DATES
Last date for receipt of registration form: 23 June 2017
Notification of acceptance: 25 June 2017
Course dates: 3 – 7 July 2017

REGISTRATION
The registration fee is INR 20,000 + 15% service tax per participant. The demand draft should be drawn in favor of "Registrar IIT Bombay (CEP A/c)" payable at Mumbai.

No income tax is to be deducted at source from the course fee, as IIT Bombay is exempt from the same. The course fee includes course material, lunch and coffee/tea.

Completed registration forms should be sent to:

Prof. Gopal R. Patil, Course Coordinator
Department of Civil Engineering
Indian Institute of Technology Bombay
Powai, Mumbai – 400 076.
Phone : (022) – 25767308
Fax : (022) – 25767302
Email : gpatil@iitb.ac.in
REGISTRATION FORM

Five-day CEP Course on
ADVANCES IN TRANSPORTATION PLANNING AND TRAFFIC MANAGEMENT
3 – 7 July 2017

NAME (BLOCK LETTERS): ____________________________________________

___________________________________________________

Gender: M / F

DESIGNATION: ______________________________________________________

ORGANIZATION: _____________________________________________________

MAILING ADDRESS: _________________________________________________

____________________________________________________________________

____________________________________________________________________

TELEPHONE:  ____________________ MOBILE: __________________________

EMAIL: ________________________________________

QUALIFICATIONS: ______ EXPERIENCE: ______ Yrs.

IIT Guest House accommodation required?* YES / NO

PAYMENT:  D.D. No.:  Dt.  Rs.

[Demand draft should be drawn in favor of "Registrar, IIT Bombay (CEP A/c)"]

Date:  Signature of Applicant

*Subjected to the availability of guest house rooms. The guest House bill to be paid directly by participant (Rs. 1000/- per person per day on twin sharing basis; Rs. 1200 per person per day single).

(PHOTOCOPY ADDITIONAL COPIES OF THIS FORM, IF NEEDED)