

**AICTE QIP
SHORT TERM TRAINING PROGRAMME**

On

**MODELING AND CONTROL OF TRAFFIC
UNDER MIXED CONDITIONS**

December 02, 2019 – December 07, 2019

Coordinators:

**Dr. Bhargava Rama Chilukuri
Dr. Lelitha Devi Vanajakshi**

Sponsored by

All India Council for Technical Education



Organized by

**Department of Civil Engineering
Indian Institute of Technology Madras**

BACKGROUND

The proposed short-term course is designed to enhance the current understanding of data collection, analysis, modelling, and control of traffic under mixed conditions. Some of the major topics covered will include macroscopic and microscopic data collection and analysis methods, Macroscopic and Microscopic models, control theory concepts, traffic control fundamentals, and simulation applications. We will also present results from ongoing

research activities at IIT Madras in the area of traffic flow modeling and control.

COURSE CONTENT

Traffic Sensors and data analysis
Emerging sensors
Image processing
Analysis techniques
Traffic Flow Models
Multi-class models
Macroscopic models
Microscopic models
Traffic Signals
Signal timing concepts and analysis
Oversaturated intersections
Tutorial
Control Theory
State-space overview
Kalman Filter theory and applications
Highway control strategies
Simulation
Traffic flow models
Applications
Current research at IIT Madras
Visit the ITS Lab and field deployment locations

FACULTY

1. Dr. Bhargava Rama Chilukuri
Assistant Professor, IIT Madras.
2. Dr. Lelitha Devi Vanajakshi
Professor, IIT Madras
3. Dr. Karthik Srinivasan
Professor, IIT, Madras
4. Dr. Gitakrishnan Ramadurai
Associate Professor, IIT Madras
5. Dr. Shankar Ram
Professor, IIT Madras
6. Dr. Akhilesh Maurya
Associate Professor, IIT Guwahati
7. Dr. Gowri Asaithambi
Assistant Professor, IIT Tirupati
8. Dr. Venkatesn Kanagaraj
Assistant Professor, IIT Kanpur
9. Dr. Anil Bachu
Assistant Professor, IIT Patna

COURSE MATERIAL

Each registered participant will be provided with lecture notes/slides.

COURSE DURATION & VENUE

The course is of six days duration from **December 02 to December 07, 2019**. Classes will be held at the **Visvesvaraya Seminar Hall**, Department of Civil Engineering, IIT Madras, Chennai.

AICTE QIP
SHORT TERM TRAINING PROGRAMME
R *on*
Modeling and Control of Traffic under Mixed
Conditions

December 02, 2019 to December 07, 2019

Application Form

- **Name (block letter):**
- **Designation:**
- **Organization:**
- **Address for communication:**

Ph. No.:

E-mail:

- **Highest Academic Qualification:**
Specialization:
- **Experience (in years):**
(a) **Teaching:** (b) **Industrial:**

Amount of TA required as per entitlement mentioned in this brochure (only for AICTE approved college teachers):

- **Accommodation:** Required / Not Required
(Local participants will not be provided accommodation)

All data provided are true to the best of my knowledge and belief. Kindly register me for the short-term course on “Modeling and Control of Traffic under Mixed Conditions” to be held at IIT Madras.

Place:

Date:

Signature of the Applicant:

SPONSORSHIP

Prof./Dr./Mr./Ms./Mrs./_____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course “Modeling and Control of Traffic under Mixed Conditions” at IIT Madras from December 02 to December 07, 2019, if selected.

Date: _____
Signature of Sponsoring Authority
Designation:
Official Seal:

Candidates have to send a DD for Rs. 500/- as caution-money:

DD No. _____ Date: _____

Bank: _____

Amount: _____

Signature of the Applicant

The duly sponsored application form should be posted to:

Dr. Bhargava Rama Chilukuri
Department of Civil Engineering
IIT Madras, Chennai-60036.

ELIGIBILITY

The course is open to faculty with a background in Civil Engineering and/or related engineering branches from engineering colleges approved by AICTE. **No course fee** is charged for participants sponsored by AICTE approved institutions. However, Rs 500/- caution-money has to be sent by the provisionally selected participants, which will be returned back once the participant joins the course.

All payments are to be made by demand draft drawn on any nationalized bank in favour of **CCE, IIT Madras payable at Chennai.**

FINANCIAL ASSISTANCE

A limited number of participants from AICTE recognized engineering institutions will be eligible for to and fro railway fare via shortest route in 3-Tier AC class and free lodging and boarding in IIT Madras guest house during the course period. Candidates attending the course for complete duration only will be eligible for TA and DA.

BOARDING AND LODGING

Boarding and lodging facilities will be provided for the selected candidates from AICTE approved institutions in the Taramani guest house at IIT Madras. Accommodation will be on twin sharing basis.

IMPORTANT DATES

Last date for email confirmation : **14-11-2019**
Last date for receiving application and DD : **14-11-2019**
Intimation of selection (by email) : **15-11-2019**

QIP STTP details, application, and updates:

Center for Continuing Education, IITM:

<http://www.cce.iitm.ac.in/>

Department of Civil Engineering, IITM:

<http://www.civil.iitm.ac.in/>

Course coordinators Profile:

Dr. Bhargava Rama Chilukuri

http://www.civil.iitm.ac.in/new/?q=bhargava_edu