STEPS FOR REGISTRATION

Please follow the steps below for registering in the GIAN program: **"URBAN TRAFFIC MODELING AND CONTROL"**

Step 1: Register at the GIAN portal using the link: http://www.gian.iitkgp.ac.in/ and by clicking on '**Course Registration/Participant Login**.'

Step 2: It shall state –Registration to the portal is one time affair and will be valid for life time of GIAN. One time non-refundable fee of 500/- INR will be charged for this service.

Step 3: Once done with registration, please select the course "URBAN TRAFFIC MODELING AND CONTROL" from the list of courses and confirm it.

Step 4: Send the copy of registration details from GIAN website and scanned copy of DD of applicable fee to Email: gian.utmac@gmail.com for advance processing.

Last Date of Registration: August 15, 2018

REGISTRATION FEE:

Students	₹ 1,500/-*
Academician	₹ 5,000/-
Participants from Industry/ Research Organizations	₹ 10,000/-
Participants from Abroad	USD 200/-

* Refundable subject to joining the course

All candidates must pay the applicable fees using Demand Draft (DD). The participants will be provided with accommodation on payment basis.

For more detail, please visit www.iitg.ac.in/maurya/GIAN-UTMAC

COURSE COORDINATOR

Dr. Akhilesh Kumar Maurya
Associate Professor, Department of Civil Engineering, IIT Guwahati,
Assam – 781039, INDIA
Email: maurya@iitg.ac.in
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Prof. R. (Jay) Jayakrishnan,
University of California
Irvine, CA
Professor, Civil and
Environmental Engineering

R. (Jay) Jaykrishnan has been a Professor at the University of California, Irvine, since 1991. He got his B. Tech from IIT Madras in 1985, followed by his MS and PhD at the University of Texas at Austin. He is among 4 or 5 transportation engineering faculty from India with the longest tenure in the United States universities. UC Irvine is also ranked as a top-5 or top-10 transportation research program in the world.

As part of his PhD, he developed Dynasmart, the earliest-existing dynamic modeling system for Intelligent Transportation Systems and dynamic route guidance, which was used in one of two earliest models for DTA Dynamic Traffic Assignment, developed by the Federal Highway Administration (FHWA) of USA. He has over 100 refereed publications to his credit, and has advised over 20 PhD graduates during his long career, with 11 of them in faculty positions in the USA and around the world. He is a member of several professional societies, and is a recipient of the prestigious Pike Johnson Award for the best paper in Transportation planning (out of several thousand submitted) to the Transportation Research Board, USA, in 2010.

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

URBAN TRAFFIC MODELING AND CONTROL

For more detail: www.iitg.ac.in/maurya/GIAN-UTMAC

ONE WEEK GIAN COURSE

4-8TH SEPTEMBER, 2018

INTERNATIONAL FACULTY

R. (Jay) Jayakrishnan,
Professor, Civil and Environmental Engineering, University of California, Irvine,CA 92697-3600, USA

COURSE COORDINATOR

Akhilesh Kumar Maurya
Associate Professor, Department of Civil Engineering, IIT Guwahati, Assam – 781039, INDIA

HOST INDTITUTE

DEPARTMENT OF CIVIL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
ASSAM 781039, INDIA

OVERVIEW

Social and economic development of any country is closely tied to the efficiency of its transportation systems. The fast pace of growth of vehicle ownership as well as rapid urbanization experienced in many parts of India has caused significant deterioration in mobility in the recent past. Urban congestion also has impacts by way of massive costs in energy usage, loss of productivity from delays, and deleterious environmental effects from vehicle emissions. Controlling vehicle movements with a proper understanding of the fundamentals of traffic behavior as well as the region-specific characteristics is thus important, underscoring the urgent need to produce more experts on the topic.

Traffic modeling and control have had several decades of history around the world, though it is not sufficiently well-understood and practiced in many cities and townships in India, outside of the larger metro areas where rapid developments have happened in the past two decades. Though many Indian universities lately produce graduates who are well-versed in transportation planning, expertise in traffic control still requires a certain level of maturation nation-wide. This is particularly so, when it comes to the detection of traffic state in the networks, and use of real-time information, including the use of applications and other facilities possible via smart phone communication that is prevalent in India. Thus it is timely that policy-makers, professionals, academics and students of transportation systems are exposed to the fundamentals of traffic behaviors and control within a more information-rich environment that is increasingly available now.

OBJECTIVES

The objectives of the course are:

- Understanding transportation systems components and traffic elements
- Understanding the basic science of vehicular traffic flow, both for homogeneous and mixed flow.
- Understanding traffic variables, detection, measurement, technology, modeling and control
- Understanding the use of information in route-level flows, and possibilities of flow control.

WHO CAN ATTEND?

- Students and faculties dealing with transportation engineering
- Professionals/Engineers from different government/private organizations dealing with urban traffic management and control
- New entrepreneurs who have plans for developing smartphone-based applications in transportation without having background in transportation engineering.

IIT GUWAHATI

IIT Guwahati, the sixth member of the IIT fraternity was established in 1994 and its academic programme commenced in 1995. With 11 depts. and 5 inter-disciplinary academic centers, it has built up its world class infrastructure for carrying out advanced research and has been equipped with state-of-the-art scientific and engineering instruments sprawling across 285 hectares plot of land on the north bank of the river Brahmaputra.

CIVIL DEPARTMENT

Civil Engineering is considered to be the most versatile branch among all the engineering branches. It is the branch with a lot of diversity from Geotechnical Engineering to Structural engineering, Environmental to Hydraulics, Transportation to Hydrology; Civil Engineering can be considered as a single largest branch among all the engineering branches. The vision of the department is to give an exposure to Civil Engineers to various challenges in the profession. The department offers courses as B.Tech., M.Tech. and Ph.D. programmes.

COURSE COORDINATOR

Akhilesh Kumar Maurya is currently an Assosciate Professor in Department of Civil Engineering at IIT Guwahati, India. He received his Ph.D. degree in Civil Engineering from IIT Kanpur and M. Tech. degree in Computer Aided Design from IIT Roorkee. He is active academically and professionally in the area of traffic flow modeling, driver behaviour, road safety audit and accident analysis, traffic data collection and analysis studies since more than one decade. He has published more than 80 technical papers in international journals and conferences. He has received the DAAD fellowship for one month visited at Technische Universität Darmstadt. He is currently Vice President of “Transportation Research Group (TRG)” of India and life member of “Indian Roads Congress”. He is also certified “Road Safety Auditor” by International Road Federation (India) and Australian Road Research Board. Apart from several Indian Institutions, he has also delivered invited lectures at various International Institutes like Technische Universität Berlin, Technische Universität Darmstadt, University Duisburg-Essen and National University of Singapore.