STEPS FOR REGISTRATION

Please follow the steps below for registering in the GIAN program ***'Transport Data Analysis, Modelling & Simulation in the era of Smart Mobility'***

Step 1: Register at the GIAN portal on the link http://www.gian.iitkgp.ac.in/ 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. Once registered in the portal, an applicant will be able to apply for any number of GIAN courses as and when necessary. One-time Non-refundable fee of 500 /- INR is to be charged for this service.

Step 3: Once done with registration, please select the course ***'Transport Data Analysis, Modelling & Simulation in the era of Smart Mobility'*** from the list of courses and confirm it.

Step 4: Send the copy of registration details from GIAN website to the following

Email: *gian.itsmobility@gmail.com*

Last Date of Registration: October 31, 2019

REGISTRATION FEE

Students	3000 /- INR
Academician	5000 /- INR
Participants from Industry/ Research Organizations	10000 /- INR
Participants from abroad	250 /- USD

Fee Includes lunch, tea and snacks on all workshop days. Accommodation can be arranged by extra payment.

SELECTION AND MODE OF PAYMENT

Selected candidates will be intimated through e-mail.

For payment please consider any of the options:

1. DD in the favour of "**Director, SVNIT-CCE, Surat**" Payable at Surat
2. Bank Transfer at

Account Name	Director, SVNIT - CCE
Account No	37030749143
Bank	State Bank of India
Branch	SVRCET Surat
Branch Code	3320
IFSC Code	SBIN0003320
MICR Code	395002012
SWIFT Code	SBININBB260

In case of any queries, please feel free to contact the Course coordinators.

COURSE COORDINATOR

Dr. Sriniwas S. Arkatkar
Associate Professor, Civil Engineering Department, SVNIT, Ichchhanath, Surat, Gujarat, Pin – 395007.
E-mail: sarkatkar@ced.svnit.ac.in
Phone: 0261-2201825 (O).

INTERNATIONAL FACULTY

Dr. Ashish Bhaskar
Senior Lecturer, Queensland University of Technology, Brisbane, Australia

Dr. Ashish Bhaskar is a Senior Lecturer at the Queensland University of Technology (QUT), Brisbane, Australia. He holds a Bachelor of Technology degree in Civil Engineering from the Indian Institute of Technology-Kanpur, Masters in Transport Engineering from the University of Tokyo, Tokyo, Japan, and PhD in Intelligent Transport Systems from Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.

Dr. Bhaskar is addressing the problem of road traffic congestion and its impacts. His research includes transport data analytics, modelling, simulation and control.

QUT provides platform to the transit and traffic operators in South East Queensland to share their data. Exploiting these real datasets, he has lead applied multimodal research projects worth over $3m. This includes, implementation of fail-safe ramp metering algorithm in STREAMS motorway management system. In last five years, he has published over 60 articles (with over 1100 citations, h-index of 19, and i-10 index of 32); and graduated six PhDs and three master by research students.

Dr. Bhaskar has taught at all levels of undergraduate program which includes both large class of size over 900 students (first year) and small class of around 50 students (final year elective units). His overall student satisfaction score for teaching is over 4.2 on the scale of 5. He is the member of QUT College of Mentors and has mentored over five early career academics for research supervisions, teaching and beyond.

He has high level of participation in various academic services. This includes: a) Journal editorial board member (International Journal of Intelligent Transport Systems Research; and Journal of Big Data Analytics in Transportation); b) Scientific committee member of World Congress on Transport Research Society (WCTRS) and chair for WCTRS Special Interest Group on Intelligent Transport Systems (ITS); and c) Subject Area Coordinator, Civil Engineering Undergraduate Program, QUT.

MHRD Govt. of India

सत्यमेव जयते

GIAN
GLOBAL INITIATIVE OF ACADEMIC NETWORKS

Transport Data Analysis, Modelling & Simulation in the Era of Smart Mobility

One-Week GIAN Course

23 – 27 December 2019

INTERNATIONAL FACULTY

Dr. Ashish Bhaskar

Senior Lecturer,
Civil Engineering and Built Environment,
Queensland University of Technology, Brisbane, Australia

COURSE COORDINATOR

Dr. Shriniwas Arkatkar

Associate Professor,
Civil Engineering Department
S V National Institute of Technology
Surat 395007, Gujarat, India

HOST INSTITUTE

PG SECTION IN TRANSPORTATION ENGINEERING AND PLANNING
CIVIL ENGINEERING DEPARTMENT
SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY
SURAT-395007, GUJARAT, INDIA

Building Urban Transport Information Systems in the era of Smart Mobility

OVERVIEW OF THE COURSE

Transport system provides the mobility of people and goods and are the veins of the local, national and global economy. It's a dynamic system with complex interactions between vehicle, infrastructure and human. These interactions are generally overlooked or over-simplified in practice for solving problems in urban systems, especially in developing economies, due to the lack of tools and expertise for mobility modelling. Hence, it is very important to comprehend the data needs to build urban information systems for better mobility in space and time. Indian Government has taken serious initiatives for 'Smart Cities' for which 'smart mobility' is vital. The need of the hour is to think outside the box and support the long overdue Smart Mobility, the mobility powered by an efficient, effective and productive integrated multimodal transport system.

With the advancement in technology different sources of data has emerged, this includes Bluetooth, Wi-Fi, Smart card based public transport, Automatic Vehicle Identification, Uber, Google, etc. These data sources provide opportunities to revolutionize the development, calibration and validation of transport models ranging from long-term demand forecasting to real time traffic management and control and dynamic simulations. This also comes with challenges related to data collection, storage, cleansing, crunching, integration and fusion. New skills and tools are needed to intelligently exploit the ongoing asset being generated by these data sources. This course aims to support the practitioner and researcher capacity building needs for the planning, operations, management and control of the Smart Urban Transport Systems, specifically in the developing economies. The course will focus on the state-of-the-art and best international practices in data-driven modelling and management. It will build fundamental understanding of the existing and emerging transport data and introduce tools and techniques needed to manage and process the data. Participants will be introduced with the existing and potential data driven based applications. Moreover, the need for further research in the domain will be discussed. The teaching and learning will be supported by hands-on analysis and modelling exercises with the data from both India and overseas.

COURSE OBJECTIVES

The primary objectives of the course are as follows:

- Analyze transport data and evaluate urban transport system performance for various intelligent transport facilities
- Understand functioning of Wi-Fi/Bluetooth based sensors for building urban information system, focusing gathering more accurate travel related information.
- Apply and appreciate modelling and simulation methodologies for flow of traffic on road network and public transport operations.
- Identify research needs for data thirst transport system planning, operations, management and control.
- Revisit transport planning process for better urban transport system planning, operations, management and control using different data sources.

ABOUT SVNIT SURAT

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and was upgraded as a National Institute of Technology with the status of 'Deemed University' on October 4th, 2002. Sardar Vallabhbhai National Institute of Technology (SVNIT) is one of the pioneering engineering institutions of the country, which has contributed many outstanding engineers in India and abroad. It is conducting seven UG programs, eighteen PG programs, and a Ph.D. program in all disciplines of engineering and applied sciences. Special attention is also given to interdisciplinary researches.

ABOUT DEPARTMENT

The Department of Civil Engineering is one of the pioneering departments of the Institute. The department has highly qualified faculty members engaged in teaching, research and development with the aim of achieving excellence in their fields. Department also offers Post Graduate and Doctoral Programs in the following areas:

- Transportation Engineering and Planning
- Environmental Engineering
- Water Recourses Engineering
- Urban Planning
- Construction Technology & Management (In the pipeline)

The major strength of the department is due its multidisciplinary activities like R&D, Consultancy, and Testing etc.

COURSE COORDINATOR

Dr. Shriniwas S. Arkatkar is currently working as an Associate Professor in the Department of Civil Engineering at SVNIT Surat. Prior to joining SVNIT Surat he has worked in the Department of Civil Engineering BITS Pilani Rajasthan. He is having more than 10 years of experience of teaching, research and consultancy in the field of transportation engineering. Before joining BITS, he pursued his Ph.D. research in the Transportation Engineering Division, Department of Civil Engineering, IIT Madras. He obtained his undergraduate degree in the area of Civil Engineering in the year 1999 and post graduate degree in the area of Urban Planning in the year 2001, from Visvesvaraya National Institute of Technology (VNIT), Nagpur, India.

Dr. Arkatkar has published more than 150 research papers in the international / national journals and conference proceedings. He has also published one research monograph. He has experience, working in diverse fields of transportation. They include: traffic flow modelling, traffic Safety, intelligent transportation systems (ITS), transportation planning, traffic operations, and traffic simulation applications. He is actively involved currently as Executive Secretary, Transportation Research Group of India (TRG) and as member of SIGs of WCTRS, Indian Roads Congress (IRC), Governing Council member in the Institute of Urban Transport (IUT), MoUD. His research activities were acknowledged with two "best research paper" awards. He is also actively involved in guiding research scholars: Ph.D. and PG students on different topics of traffic and transportation planning.