

**Online Short-Term Training Programme (STTP)**

**On**

**“Tools for Transportation Data Analysis &  
Modelling”  
(TTDAM 2023)**

**October 09 - 14, 2023**

***Coordinators***

**Dr. Nishant Mukund Pawar**

**Dr. Munavar Fairouz C.**

**Dr. Harikrishna M.**

**Centre for Transportation Research (CTR)**

**(A Centre of Excellence funded by MoE)**



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## **OVERVIEW OF THE PROGRAMME**

Transportation Engineering is one of the specialisations in Civil Engineering, which requires voluminous amounts of data for the analysis, planning and design of transportation systems. A majority of the collected and observed data needs to be analysed efficiently to arrive at meaningful conclusions for the proper design of transportation systems. Big data and data analytics have always been part of Transportation Engineering. However, the importance of handling and analysing big data for acquiring meaningful and critical information has increased in recent years. Most of the transportation engineering works require an in-depth knowledge of the techniques for rigorous statistical analysis and modelling, so as to derive meaningful inferences. Mathematical statistics is used to analyse the multi-faceted attributes of transportation systems, some of which cannot be established with complete certainty. Therefore, it is important to have a thorough understanding of the appropriate statistical analysis techniques for analysing transportation-related data.

This short-term programme aims to introduce various traditional, as well as emerging tools and techniques available for data analysis in the field of Transportation Engineering. The objective of this programme is to empower research scholars, teachers, practising engineers and planners so that they can apply the latest tools and techniques in transportation data analysis, particularly qualitative data, and arrive at logical, convincing and effective solutions. This programme also gives hands-on training, which will be useful for the participants to apply the techniques on different software such as SPSS and R. This short-term program will be the fifth edition of TTDAM, which aims to enrich the participants with theoretical and practical aspects about the use of different statistical analysis techniques and software for proper analysis of transportation data.

## **PROGRAMME OUTLINE**

The programme will cover the conceptual aspects related to emerging tools and techniques for transportation data analysis. The primary objectives of the programme are as follows:

- Transportation Data - Types and Measurement
- Transportation Surveys – Survey Methodology and Design
- Design of Questionnaire
- Univariate and Bivariate Data Analysis
- Discrete Choice Models - Analysis and Estimation
- Exploratory and Confirmatory Factor Analysis
- Structural Equation Modelling
- Parametric Survival Analysis
- Agent Based Modelling
- Practical case studies on applications of the above in Transportation Engineering

## RESOURCE PERSONS

The lectures of the programme will be handled by faculty from IITs, NITs and other renowned technical institutions in the country.

## REGISTRATION FEE

- Registration Fee (inclusive of GST @18%)
  - **UG/ PG Students/Research Scholars** : Rs. 2360/-
  - **Faculty/Academicians** : Rs. 4720/-
  - **Industry Professionals** : Rs. 9440/-
  - **International Participants (Students)** : USD 50
  - **International Participants (Academicians)** : USD 100
  - **International Participants (Industry)** : USD 200
- Interested participants need to pay the non-refundable registration fee through online mode to the following account. (while payment, write TTDAM 2023 in the column of purpose)
- **Account No.:** 37618269594
- **Account Holder Name:** DIRECTOR NIT CALICUT Continuing Education Programme
- **Bank:** State Bank of India, NIT Calicut Campus
- **IFSC:** SBIN0002207
- **SWIFT CODE** (For International transaction): SBININBB392
- Transaction details have to be entered in Google form for registration (link provided in how to apply).

## WHO CAN ATTEND

Academicians, UG and PG Students, Research Scholars, personnel from government organisations and industry.

## COURSE MATERIAL

Necessary course materials and software access will be provided to the participants during the course.

## HOW TO APPLY

- Prospective applicants for participation in the course should register through the following link: <https://tinyurl.com/m6fm94js>
- The payment and identity proof should be uploaded in the Google form.
- **Last date to apply: October 02, 2023.**
- Selected candidates will be informed through email by October 06, 2023.
- Selection will be based on First come First Serve Basis, as the total number of participants is limited to 60.

## **ADDRESS FOR CORRESPONDENCE**

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## **ABOUT NIT CALICUT**

The Institute was initially established as Calicut Regional Engineering College (CREC), which was the forerunner to the present National Institute of Technology, Calicut (NITC) in 1961. NITC, located about 22 kilometres north-east of Calicut City, offers eleven Undergraduate programmes, Thirty-one Postgraduate programmes and doctoral programmes in various fields of Science, Technology, Architecture, Engineering and Management.

## **DEPARTMENT OF CIVIL ENGINEERING**

The Department of Civil Engineering, one of the oldest Departments in this Institute was established at the inception stage of the Calicut Regional Engineering College (CREC), which was the forerunner to the present National Institute of Technology, Calicut (NITC) in 1961. The Department has highly qualified faculty members engaged in teaching and research and development. The Department offers Undergraduate programme in Civil Engineering and Post Graduate and Doctoral Programmes in the areas of Structural Engineering, Traffic and Transportation Planning, Offshore Structures, Environmental Geotechnology and Water Resources Engineering. The Department is a recognized QIP centre of the AICTE for both M.Tech. and Ph.D. programmes.

## **CENTRE FOR TRANSPORTATION RESEARCH (CTR)**

The Centre for Transportation Research (CTR) is a Centre of Excellence funded by the Ministry of Human Resources Development, under the scheme 'Establishment of 50 Centres of Excellence in frontier areas of Science and Technology', in the year 2013. The objectives of the Centre are to undertake research in various aspects of transportation and develop solutions that lead to sustainable transportation, create a pool of quality conscious and qualified transportation engineers sensitive to societal requirements, enhance the skills and knowledge of working transportation professionals and bring awareness among public for their active and informed participation.