

NIT CALICUT

National Institute of Technology Calicut is one of the premier technical institutions in India. NITC is set in a picturesque landscape at the foothills of the Western Ghats, located on the Kozhikode - Mukkam road about 22 km from Kozhikode city. The Institute offers under-graduate, graduate and Ph.D. programmes under different departments. The Institute has excellent infrastructure in computing, information technology, laboratories and library.

DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering is one of the oldest Departments in this Institute in 1961. Over the years, the Department has grown many folds and at present, the Department offers an undergraduate programme in Civil Engineering leading to the B.Tech. degree and four graduate programmes leading to the M.Tech. degree of the Institute. In addition to the above, there are a number of students pursuing research at the Department in various fields of Civil Engineering, leading to Ph.D. The Department is a recognized QIP centre of the AICTE for both M.Tech. and PhD programmes. The Department has been regularly conducting a number of short-term training and faculty development programmes for the benefit of faculty of technical institutions and working professionals.

CENTRE FOR TRANSPORTATION RESEARCH

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.

One Week High-End Workshop on

Application of Unmanned Aerial Vehicles (UAVs) for Advanced Data Interpretation in Transportation Engineering (AUDIT 2023)

Under the KARYASHALA Scheme - A SERB Initiative

THE WORKSHOP WILL BE CONDUCTED IN OFFLINE MODE

31st July – 4th August
2023



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CENTRE FOR TRANSPORTATION RESEARCH
DEPARTMENT OF CIVIL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT
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COORDINATORS

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OVERVIEW OF THE COURSE

Unmanned Aerial Vehicles (UAVs) or Drones have been equipped with advanced technology and features. Drones can be used easily using remote or mobile phones, and hence have seen an incredible amount of use now days over wider application in different sectors. The Government of India (GoI) is targeting to make our country as a global leader in drone technology. In line with vision of GoI in budget 2022, Drone Shakti scheme was introduced to boost drone sector. In particular to Transportation Engineering, given the complexity and many parameters influencing traffic flow and pavement management, there is a need for gathering and analyzing many data in a process of development and calibration of transportation models. Drones are more cost effective and cover continuous segment of roadway while traditional traffic monitoring devices capture traffic parameters at fixed and discrete locations, hence it requires many units to monitor a road segment. Additionally, it will be easier to extract traffic and pavement related data by using drone and calibration models can be developed. The use of drones enables the recording of data on a larger sample which enables reliable estimation of the traffic flow and pavement condition parameters. The main objectives of this program is to discuss the various applications of Drones to collect data in different fields of Transportation Engineering such as Traffic Flow, Drivers Behavior, Road Safety, Pavement Management, Infrastructure Management and their applications in the domain of Transportation Engineering. The following topics will be covered in this programme (but not limited to):

- Data Requirements
 - Operation of Drones
 - Recording of Data using Drones
 - Extraction of Data
 - Exploration of Data
 - Analysis and Modelling
- For,
- Traffic Flow Modelling
 - Highway Safety
 - Pavement Evaluation and Management
 - Use of Surrogate Measures
 - Driver Behaviour

IMPORTANT DATES

Last date for receiving registration: 20th June, 2023

Intimation to the participants: 28th June, 2023

Programme dates: 31st July – 4th August, 2023

RESOURCE PERSONS

The sessions will be handled by experts from the leading research organizations around the World including IITs and NITs.

HOW TO APPLY?

- Interested participants have to complete their registration by filling the following Google form on or before **20th JUNE 2023**.

Registration Link: <https://forms.gle/fDfB4yQ27L73ChuP9>

- Candidates will be shortlisted based on academic and research credentials.
- The shortlisted candidates will be intimated through email on or before **28th June, 2023**.
- **Registration is free for the programme. Free accommodation and working lunch will be provided during the workshop for all selected participants.**
- **TA will be reimbursed as per the SERB norms and rules.**

WHO CAN ATTEND

- The course is open to Ph.D, PG and final year engineering students who are having a strong willingness to get excellence in their research pursuits.
- **Only 25 participants will be selected as per the scheme norms.**
- Preference shall be given to students from TIER II/ TIER III institutes as per the norms of accelerate vigyan “Karyashala” scheme.

CORRESPONDENCE

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