

*International Conference
on*

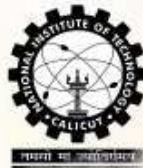
Innovative Methods and Practical Applications for Cognizant Transportation Systems (IMPACTS2023)

Organised by
**Transportation Engineering Research Center (TRC),
College of Engineering Trivandrum**

In association with
**Centre for Transportation Research, NIT Calicut
and
KSCSTE - National Transportation Planning and Research Centre**

March 20-22, 2023

Funded by
Directorate of Technical Education, Govt. of Kerala



INTRODUCTION

The biggest challenge that confronts cities today is the increasing dependence on personalised vehicles resulting in congestion, unsafe roads and high pollution levels. Unless policies are formulated to promote sustainable transportation, the conditions will worsen. There is a need to modernise old technology and use latest technology to provide sustainable transportation. Cities require interdisciplinary solutions for dealing with the core areas of pavement design, construction and maintenance, energy management, mobility and urban development. Mobility, accessibility and safety continue to be daunting challenges to transportation professionals world over. In this context, cutting edge research that could provide sustainable solutions to transport related problems is the need of the hour. Smart mobility focuses on how future transport system will utilise technology to make the system more efficient and comfortable.

IMPACTS2023 aims to provide an opportunity for the students, research scholars, faculty and professionals working in areas related to or with application in traffic and transportation engineering to present their work, exchange information and create awareness on the innovation and practical solutions for a sensible transportation system.

COLLEGE OF ENGINEERING TRIVANDRUM

College of Engineering Trivandrum, established in 1939, has the unique status of being the premier engineering institute in the state of Kerala. The college ranks among the top in the country in quality and number of top jobs held by its alumni. Department of Civil Engineering has been in existence since the inception of the college and has grown into a full-fledged department with specialization in all the major areas of Civil Engineering. The department plays a very active role in consultancy, research, testing, certification and continuing education programmes for Civil Engineering discipline.

TRANSPORTATION ENGINEERING RESEARCH CENTER (TRC)

The Government of Kerala has set up Transportation Engineering Research Center (TRC) in the department of Civil Engineering to bridge the missing link between academics and implementing agencies with the intention of contributing its academic and research output to offer 'better roads for the public of Kerala'. The main objective of this center is to promote interdisciplinary research and to transfer the innovative research knowledge of the institute to the practising engineers for ensuring better transportation system for the state. It aspires at joining hand in hand with the practising engineers for planning, designing, and building better roads and managing it efficiently throughout the service life.

CENTRE FOR TRANSPORTATION RESEARCH (CTR)

The Centre for Transportation Research (CTR), CED, NIT Calicut 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.

KSCSTE- NATIONAL TRANSPORTATION PLANNING AND RESEARCH CENTRE

National Transportation Planning and Research Centre (NATPAC), an institution under Kerala State Council for Science, Technology and Environment (KSCSTE) is a premier R & D institution in the country which works on multi-modal system of transportation covering road, rail, water, air etc. The headquarters of the Centre is at Thiruvananthapuram and have a Regional Centre at Kozhikode. Since its inception in 1976, the Centre has been handling research and consultancy projects as per the Country/State's requirements in the arena of Highway Engineering, Traffic & Transportation Planning, Traffic Safety, Transport Economics and Management, Techno - Economic Feasibility, Water Transportation, Innovative Transport System Applications etc.

INVITATION FOR PAPERS

Papers on the themes listed below (but not limited to) are invited for IMPACTS2023.

Theme I: Pavement Material Characterization, Design, Construction & Management

- Characterization and modelling of pavement materials
- Pavement recycling
- Innovative methods in pavement construction
- Geotechnical aspects in pavements
- Design concepts for pavements
- Pavement maintenance and management systems

Theme II: Travel Demand Modelling & Forecasting

- Planning of urban transport systems
- Travel behavioural modelling
- Network design for passenger and freight transport
- Transport economics and appraisal
- Operations and management of public transport and freight systems
- Transport impact assessment
- Planning of smart cities

Theme III: Traffic Flow Modelling and Safety

- Traffic control and management
- Transport network analysis
- ICT for traffic systems
- Crash investigation and reconstruction
- Road user behaviour
- Road safety analysis and modelling

Theme IV: Intelligent Transportation System

- Connected and autonomous vehicles
- Internet of Things (IoT) in Transportation
- Mobility as a Service (MaaS)
- Application of AI and ML in transportation
- Big data analytics for transportation
- Information systems and communications

Theme V: Logistics and Freight transport

- Logistics planning and policy
- Freight and network capacity
- Intermodal freight including terminal design and operation
- Design and construction of integrated rail transportation infrastructure

Theme VI: Environment & Sustainability in Transportation

- Environmental impact assessment of transport projects
- Green mobility- Electricity/Hydrogen
- Policies and planning for sustainability in transport systems
- Renewable energy applications in transport sector
- Pollution and environmental issues related to transportation

The accepted papers must be presented at the conference. At least one author of a paper should register for the conference. The language of the Conference is English.

GUIDELINES FOR MANUSCRIPT SUBMISSION

A. For full paper submission in IMPACTS2023, the author(s) have to use the “Microsoft Conference Management Toolkit (CMT)” platform. Please use the following URL to log in to the CMT website for full paper submission:

<https://cmt3.research.microsoft.com/IMPACTS2023>

B. In case login ID is not available, a new account can be created by giving the required details.

C. Click on “Log in” and provide your user name and password. After logging into your account provide all the required information like title, abstract, keywords and topic/theme. Further, provide all co-authors details on this page.

D. The submitted full paper for IMPACTS2023 should NOT include any author(s) details (like Name, email, affiliation, acknowledgment etc.) in the body of the paper including the front page. All these details need to be entered only in the CMT.

The full-length paper template is available on the conference website:

<http://www.impacts2023.cet.ac.in>.

DATES TO REMEMBER

| | |
|----------------------------------|---------------------------------------|
| Full Paper Submission | : January 20, 2023 |
| Acceptance Notification | : February 15, 2023 |
| Submission of camera-ready paper | : February 28, 2023 |
| Registration | : February 20, 2023 to March 15, 2023 |

REGISTRATION FEE (Inclusive of 18% GST)

| | |
|---|------------|
| •International delegates from Industry | : USD 100 |
| •International delegates from Research Organisations & Academic Institutions | : USD 60 |
| •International Students and Research Scholars | : USD 30 |
| •National Delegates from Industry | : INR 5000 |
| •National Delegates from Research Organisations & Academic Institutions | : INR 3000 |
| •Students, Research Scholars and Delegates from Government organisations in India | : INR 1500 |

MODE OF PAYMENT

The registration fee shall be paid through online transfer to;

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|-----------------------|--|
| Account Number | : 41517409738 |
| Account Holder's Name | : IMPACTS2023 |
| Name of Bank | : State Bank of India |
| Branch | : Engineering College (Kulathoor), Trivandrum |
| IFSC | : SBIN0070268 |

CONFERENCE PROCEEDINGS

Attempts are being made to get the Conference Proceedings published. Papers will be selected for publication through the double blind peer review process. By submitting papers to this conference, the author(s) confirm(s) explicitly that the work meets the highest ethical standards for author and co-authors. It will be updated shortly in conference website.

SPONSORSHIP

IMPACTS2023 will provide great opportunity for interaction among industries, consultants, government agencies, educational institutions, academicians, professionals and decision makers. Industries and organizations are invited to be part of the event. The event sponsors will be provided an opportunity to make a presentation and exhibit their products (space will be provided). The sponsorship fee inclusive of 18% GST.

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|-------------------------|-----------------|---|
| Premier Sponsor | INR 2,00,000/- | 4 delegates + 15 minutes Presentation time + exhibition space |
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