



Indian Institute of Technology Indore
Department of Electrical Engineering & Center
for Electric Vehicle and Intelligent Transport
Systems (CEVITS)

Organizes

**Science and Engineering Research
Board (SERB) funded
High-end Workshop**

on

**Vehicular Communications
for Next-Generation
Intelligent Transportation
Systems**

(13 – 19 July 2022)

About IIT Indore

IIT Indore is located in Indore which takes pride of being the cleanest city in India. It was established in 2009 with motto of 'ज्ञानम सर्वजनहिताय (Knowledge is for the well-being of everyone)'. It belongs to IIT family which is known to provide best education in Engineering and Technology across India. IIT Indore has shown relentless effort in providing best platform for education as well as research in several areas of science and technology. In Times Higher Education World University Rankings 2021, IIT Indore is ranked at 201-250 among global universities and 2nd among India universities in Computer Science, 76th among young universities,

and 78th among Asian universities. Recently, IIT Indore is ranked 13th and 30th in the National Institutional Ranking Framework (NIRF) rankings 2021 released by Ministry of Education, Government of India, under Engineering and Overall categories, respectively.



About KARYASHALA

'KARYASHALA' scheme by SERB is meant for skill development training on topics required for scientific research work. It is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills

Registration Fee: NIL

Course Features

- Certificate to the participants on successful completion of the course

- Course materials and stationery/consumable items will be provided to the participants

General Information

- **Eligibility:** M. Tech & PhD students of Electrical/Electronics & Communication Engineering or any other specialization relevant to Wireless & Vehicular Communication Systems.
- **Accommodation** for participants may be provided at IIT Indore hostel with catering facilities, if requested.
- Students selected for this workshop are eligible for **Travel allowance (TA) reimbursement** for their journey to IIT Indore from their home town or host institute as well as return journey **as per SERB & GoI norms**.
- Daily necessary expenses such as stationary, consumables, accommodation, food etc. for participants will be covered under the funds approved by SERB as per norms.
- After last date of registration, selected candidates will be intimated through email.
- Selected candidates will have to acknowledge participating in the workshop through return email failing which the waitlisted candidates may be called for attending the workshop.
- Candidates will be selected on the basis of merit.
- The candidate must upload a letter of authentication about your current affiliation and No Objection Certificate (NOC) from Supervisor/Head of the Department/Head of the in the registration link for participating in the workshop, if selected. There is no dedicated format for the same however, it must be obtained on the institute/university letterhead.

Course Timings
10:00 AM – 04:30 PM
Venue
IIT Indore
Mode of Workshop
Physical

**Last Date of
Registration**
20 June 2022

Registration Procedure

- Register online using the following link:
<https://forms.gle/J28iZpCfrLtwLuX69>

Number of Seats

- **Total number of seats is limited to 25**

Brief description about the workshop

The current scenario of transportation infrastructure in India demands the need for developing efficient intelligent transportation systems (ITS) because of increasing population, traffic congestion, etc. Vehicular communication is a key enabler for the next-generation ITS applications such as platooning, remote vehicle monitoring, etc. This workshop will provide fundamentals of vehicular communication systems along with advanced coding techniques, modelling of vehicular channels, various radio access technologies for next-generation ITS, connected and automated vehicles, unmanned aerial vehicle (UAV) communication, ITS standardization activities, vehicular Internet-of-Things (IoT) networks, and advanced network security techniques specific to vehicular networks.

Tentative Workshop Contents

- Vehicular Communications for Intelligent Transportation Systems (ITS)
- Vehicle-to-everything (V2X) Communication
- Vehicular Radio Access Technologies for ITS
- Vehicular Channels: Characterization and Modelling
- Advanced Coding Techniques in Vehicular Communications
- Vehicular IoT networks
- Manually Driving and Automated Driving Vehicular Networks

- Routing Protocols and Resource Allocation Techniques in Vehicular Networks
- Unmanned Aerial Vehicle (UAV) Communication
- Security Aspects in Vehicular Communication Systems
- Hands-On-Training Sessions using MATLAB

Expert Speakers:

Experts from Industry and Academia (IITs, NITs, IIITs, etc.) will be delivering talks along with few hands-on training sessions

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