

## About IIT Indore

Since its inception in 2009, the institute has been supporting and affirming the value of academic development and is devoted to excellence in teaching, research and learning. We have a variety of academic programs that the students can find to suit their unique interests. We offer over 8 UG (5 major and 3 minor) and 29 PG programs driven by around 160 faculty who are engaged with the research-based teaching to push the boundaries of human knowledge. MTech in Electric Vehicle Technology (EVT) program is an additional step towards similar direction where the E-Mobility related activities are growing worldwide.

## Motivation

- The motivation behind starting this program is to provide concepts in EVT field so that the students should be able to compete successfully in the emerging E-Mobility job market and to conduct research in the field of Automotive Vehicles that will serve India's and the global needs.
- Electrical Vehicles (EVs) have so far been a nascent market for India and there is a huge scope for their development as the current status and growth of Indian automobile industry is remarkable.
- EV industry is likely to grow rapidly once the mass production of cheaper fuel cells will reach in the next 3-5 years.

## Novelty

- Unique and first-of-its-kind program for multidisciplinary students.
- Transcending the boundaries of multiple themes and covering the entire spectrum of program to present viable ways for designing and developing EVs.
- Providing a timely opportunity to link academia, industry and research in the development of EVs.

## Program Structure

- **Educational Qualification:** Four-year Bachelor's degree or five-year integrated degree (with first division) in Mechanical or Electrical or Electronics and Communication or Automobile or Instrumentation and Control or Electronics or Instrumentation or Production or Mechatronics Engineering.
- **Categories of Admission:** Indian nationals under Teaching assistanceship (TA), Sponsored Industry professionals & scientist from R&D Centers (SW), Defence Forces (DF) and international candidates under ISF, ISW and GSW.
- **Qualifying Examination**
  - **TA:** Valid GATE qualification in the respective branch or XE (with Fluid mechanics/Material Science/Solid mechanics/Thermodynamics) for Indian students.
  - **International:** Valid score of TOEFL or IELTS and valid score of GRE.
- **Duration: Two years:** Course work in first year. Project work in second Year (scope for industry-academia-collaboration)
- **Stipend:** Only TA candidates are eligible for stipend/financial support from the Institute.

## Admission Process

- **For International Category:** [Click here](#)
- **For TA Category:** Apply through Common Offer [Acceptance Portal \(COAP\)](#). Applicant also needs to submit application on [Institute portal](#).
- **For Non-TA Categories:** Application needs to submit on [Institute portal](#)
- Additional details available at: institute website [Advertisement](#)

## Master of Technology

In

## Electric Vehicle Technology

*A postgraduate degree program offered by*

## Indian Institute of Technology

## Indore

*For students, Sponsored Industry professionals, Scientist from R&D Centers and Defense Force personnel*

**Admission for 2021-22**



## Center for Electric Vehicles & Intelligent Transport Systems

**(CEVITS)**

**IIT Indore,**

**Simrol, Indore, India**

**453 552**

## Courses

- **Compulsory Courses:** Hybrid Electric Vehicles; Vehicle Dynamics; Autotronics; Electrical Machines and Drives; Vehicular Communication System; Energy Storage in Electric Vehicle
- **Elective Courses:** Fuel Cell Technology; Advances in Energy Storage Materials; Driver-Vehicle Interaction; Vibrations and Noise Control; Reliability Engineering; Computational Fluid Dynamics; Machine Learning; Computer Vision; Embedded Systems; System on Programmable Chip Design; Composite Materials; FEM.

## PhD Program in EVs

Part/Full time PhD program in EVs is available in the following areas for Non-TA categories and Fellowship Awardees from CSIR, DST, UGC etc. CFD; Fuel Cells; Energy Materials and Futuristic Battery Materials; Autonomous Vehicular Systems; Electrochemical Energy Storage for EVs; Vehicle Dynamics; Hydrogen Storage; Composite Materials for Automotive Applications; Traffic Engineering; Crashworthiness of Materials; Hybrid Vehicle; Vehicle Simulation; Autotronics System Design; Vehicular Communication System; Power Electronics Related to EVs; Automotive Human Factors; Advanced Materials for EVs; Light-weight Materials for EVs; Thermal Management of EVs; The Triboelectric and Nano Generator; NVH of EVs; Speed Control of EVs; Energy Storage; Computer Vision for EVs; Na-Ion Batteries and Supercapacitors for EVs. Sponsored students can finish their course work in one or two semesters at IIT Indore and then they can carry out remaining PhD research work at parent/sponsored organization. Please visit (<https://academic.iiti.ac.in/phdadvt.php>) for more admission details or write to the program coordinator.

## Faculty

Total 23 faculty of IIT Indore from various department such as Civil, Computer Science, Electrical, Humanities, Mechanical, Metallurgical Engineering & Material Science, Physics and Chemistry are associated with CEVITS and will be involved in teaching above course as well as carrying out project/research in the broad field of EVs. They are also available to guide sponsored PhD candidates in the areas listed under PhD program in EVs.

## About CEVITS

The CEVITS is established at IIT Indore in 2021 and total 23 faculty of IIT Indore are associated with it to fulfill the following. The center has sort to:

- attract, train and retain outstanding students.
- foster innovation and research in the interdisciplinary field of EVs and smart transportation that will advance the automotive and related industrial base of India.
- promote strong relationships with industry and foster entrepreneurship spirit among the faculty and students.
- complement the most important and ambitious Gol National Mission for Electric Mobility (NMEM) and Green Initiative Mission.
- address the major concerns and dilemma to numerous stakeholders and researchers, and endeavour them to integrate their "know-why" with manufacturers' "know-how".
- establish links beyond the level of the individual researcher and innovation practitioner, and to open-up opportunities for more sustainable, solution-oriented collaborations among academic groups, private and third sector such as small and medium-sized enterprises, technology transfer offices etc.

## Important dates

Last date for Registration on COEP (For TA)	Please visit ( <a href="https://coap.iitd.ac.in/">https://coap.iitd.ac.in/</a> )
Online Application for MTech in EVT under TA	April 12- May15, 2021
Online Application for MTech in EVT (For Non-TA)	April 15-June 15, 2021
Start of MTech Program	July 25, 2021

## Contact Details

If you have any other queries or need additional information on MTech and PhD Programs, you may write to the program coordinator.

### **Dr. Shailesh I. Kundalwal** **Program Coordinator**

The Center for Electric Vehicles & Intelligent Transport Systems

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