About the Programme

FDP on *Advances in Artificial Intelligence for Autonomous Vehicles* will be held on February 10th – 15th, 2025. This Faculty Development Program is designed to empower educators with cutting-edge knowledge and skills essential for preparing the next generation of engineers and researchers in the rapidly evolving field of autonomous vehicle technology. This program aims to delve into the intersection of artificial intelligence and electric vehicles, exploring how AI can revolutionize various aspects of electric mobility, from battery management and energy efficiency to autonomous driving capabilities. Faculty participants will engage in gaining insights into the latest advancements in AI-driven solutions for autonomous vehicles. The program focuses on enhancing technical expertise and emphasizes effective teaching methodologies and curriculum development, ensuring that educators can effectively convey the intricacies of this interdisciplinary field to their students. By the end of the program, participants will be equipped with the knowledge and resources to integrate AI applications into electric vehicle curricula, fostering innovation and excellence in the academic community.

Program Objectives

1. To introduce the role of artificial intelligence in developing autonomous vehicles.
2. To impart knowledge on AI concepts, techniques, tools, and their significance in autonomous vehicles.
3. To provide a platform for exchanging ideas, knowledge, and experiences among participants and experts relevant to the emerging areas in AI for autonomous vehicles.
4. Identify opportunities and challenges for breakthrough research in autonomous vehicle technologies.

Topics to be Covered

- Introduction to AI in Electric Vehicles
- Machine Learning Basics for EV Applications
- Sensor Technologies for Autonomous Electric Vehicles
- Battery Management Systems and AI Optimization
- AI-driven Power Electronics for Electric Drivetrains
- Autonomous Navigation and Control Systems
- Energy Efficiency Enhancement through AI
- Data Analytics for EV Performance Moni
- Hands-on using AI techniques for autonomous vehicles.
- Research opportunities and challenges in autonomous vehicles

About The Institute

Manipal Institute of Technology Bengaluru is an off campus of **Manipal Academy of Higher Education** (MAHE) (*an Institution of Eminence Deemed to be University*), located in Yelahanka, Bengaluru, the Silicon Valley and Infotech capital of India. The campus is sprawling in a large land space of about 125 acres with state-of-the art infrastructure and soon going to be one of the premier Technical Institution of modern India in a beautiful clement climatic condition round the years. **MAHE** is considered as one of the best Universities in India and has global recognition for quality education. The university has NIRF ranking of 4 amongst universities in India, QS World University Rankings in the band of 951-1000 in 2024. It is a globally engaged institution with active partnership with more than 220 leading universities around the globe from the 6 continents. Manipal Institute of Technology Bengaluru is the new flagship engineering institute of MAHE. Being a metropolitan city, Bengaluru is well connected with all foreign countries and states of India. MIT Bengaluru is already having students from pan India and abroad. It offers 7 B.Tech. Engineering program in streams of Computer Science & Engineering, Artificial Intelligence, Cyber Security, Information Technology, Data Science and Electronics & Communication. It also offers Ph.D. program in different Engineering branches like Computer Science, Information Technology, Electronics, Mechanical, Civil, Biotechnology and in the areas of Physics, Chemistry and Mathematics. All the programs are approved by All India Council of Technical Education (AICTE), MHRD, Government of India.

About The Department

Computer Science & Engineering (CSE) department of Manipal Institute of Technology Bengaluru offers B.Tech programme in CSE and AI. The department aims to encourage research and innovation in Computer Science Engineering and other allied areas. The objective of the B.Tech program in CSE is to prepare the students to undertake careers that involve innovation, problem solving using computational techniques, or to undertake advanced studies to develop careers in the allied areas of computer science. The program offers a wide range of core courses, program electives and open electives in emerging areas of CSE. The department also has several industry collaborations.

Resource Persons: Eminent resource Persons from reputed academic institutions and industries

Eligibility: The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry) etc.

Targeted Participants: Faculty members, research scholars, PG Scholars, and industry persons.

Registration Fee: Registration and FDP is FREE OF COST

There is no registration fee for the FDP. But participants are required to Email scanned copy of filled registration form to megha.arakeri@manipal.edu.

Selection: The number of participants is limited to 150 and will be selected on the first-come, first-served basis. The selected candidates will be intimated through e-mail only.

How to Apply: Application in the attached format should reach to the Programme Coordinator on or before 10 Days before of start date of the FDP. For the confirmation, please mail the scanned copy of filled registration form to megha.arakeri@manipal.edu; Google registration form will be created 45 days before the start date of the FDP and distributed accordingly.

Certificate: Certificate to the participants will be issued on successful completion of the FDP Programme as per the FDP guidelines.

Registration Process

REGISTRATION LINK:
https://atalacademy.aicte-india.org/login

1. Register as a participant → Fill your details.

2. Select workshop: Karnataka → Month → February→ Thrust Area → Smart cities and Mobility → online Mode.

3. Select Institute → Manipal Academy of Higher Education

E-Mail your Registration Form to:

megha.arakeri@manipal.edu

Chief Patron

Dr. Ramdas M. Pai, Chancellor, MAHE

Patrons

Dr. H. S. Ballal, Pro-Chancellor, MAHE

Lt. Gen. (Dr.) M. D. Venkatesh, Vice Chancellor, MAHE

Dr. Narayan Sabhahit, Pro Vice Chancellor, MAHE

Dr. Madhu Veeraraghavan, Pro Vice Chancellor, MAHE, Bengaluru

Dr. P Giridhar Kini, Registrar, MAHE

Dr. Iven Jose, Director, Manipal Institute of Technology Bengaluru, MAHE

Dr. Raghavendra Prabhu P, Deputy Registrar, MIT Bengaluru, MAHE

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FDP Co-Coordinator:

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MANIPAL ACADEMY of HIGHER EDUCATION
(Institution of Eminence Deemed to be University)

ATAL Faculty Development Programme on

Advances in Artificial Intelligence for Autonomous Vehicles

10th Feb – 15th Feb, 2025

Organized by
Department of CSE
Manipal Institute of Technology Bengaluru
Manipal Academy of Higher Education

Sponsored By

AICTE Training and Learning (ATAL) Academy, AICTE New Delhi