



COEP Technological University

Department of Mechanical Engineering



offers

1-Year Full Time Post Graduate Diploma in Electric Mobility

in collaboration with

The Automotive Research Association of India (ARAI), Pune, India

ABOUT THE COURSE:

Automotive Industry is currently going through paradigm shift towards Electrification. With Electric Mobility, we are moving towards the future with immense technological opportunities. With opportunities come challenges; there will be fundamental changes for the user's vehicle manufacturers, governments and policymakers. Vehicle technology will become truly interdisciplinary.

The first step in facing technological challenges and exploiting opportunities is to learn, understand the technology. PGD-EM is an apt course for those who wish to dive into exciting careers in future mobility solutions. The course is designed for fresh graduates and experienced professionals working in industries. The professionals from ARAI and faculty of COEP together with eminent resource personalities, will prepare the students for upcoming challenges and opportunities in transition from ICE mobility to Electric Mobility.

The course includes class room lectures, video lectures, presentations and tutorials, which are all reinforced with practicals on ARAI's the state-of-the-art Centre of Excellence in E-Mobility. Students will be exposed to current developments in EV Technology, charging issues, government policies through case-studies and real world projects.

COURSE DETAILS:

Trimester I

- Bridge Course
- Fundamentals of Automotive Electrical & Electronic Systems (for Mechanical group)
- Fundamentals of Automotive Mechanical Systems (for Electrical group)
- Applied Mathematics
- EV System Design and Architecture
- Energy Storage Systems for Electric Vehicles
- EV Motor Drives and Power Electronics
- Lab 1
- Mini Project 1

Trimester II

- Vehicle Dynamics and Traction Systems
- Sensors and Controls in Electric Vehicles
- IOT for Electric Vehicles
- Elective 1
- Elective 2
- Lab 2
- Mini Project 2

Trimester III

- Full time Project

Elective Courses (Elective 1 & 2):

- Thermal Design and Management of EV Systems
- Safety and Automotive Standards
- Energy Management and Vehicle Integration
- Advance Electric Drives
- Embedded Systems and In-Vehicle Communication Protocols
- FEM and CFD for Electric Vehicles
- Design Validation Process

Place of Study/Project :-

Trimester-I

- Students will be at COEP & ARAI Academy



Trimester-II

- Students will be at COEP & ARAI Academy



Trimester-III

- Full Time Project @ COEP/ ARAI / Industry

Total Number of Seats: 40

ELIGIBILITY CRITERIA:

Engineering Graduate in Mechanical /Automobile /Electrical /Electronics & Telecommunication / Instrumentation and allied branches.

COURSE FEES:

Rs. 1,75,000/- for Full Course

SELECTION CRITERIA:

Online / Offline Technical and Personal Interviews.

Last Date of Online Application From:
31st July 2023

Project Opportunities:

Students will get the opportunities to do their final Trimester projects in:

- ARAI
- Research Institutes
- Vehicle Manufacturers
- Component Manufacturers etc.

How to Apply:-

Admission details can be availed by visiting:

<https://www.coep.org.in/content/postgraduatediplomaprogram>

PG Diploma Certificate:-

The final PG Diploma is awarded by College of Engineering Pune in association with ARAI, Pune

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