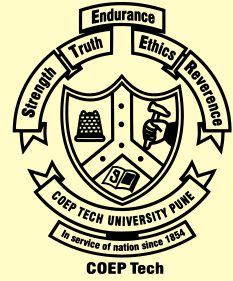


COEP Technological University
Department of Mechanical Engineering



offers

**ONE YEAR FULL TIME POST GRADUATE DIPLOMA IN
ELECTRIC MOBILITY (PG-DEM)**



Our Partners in the initiative



DESIGN

DEVELOP

DELIVER

About the Course

Mobility with internal combustion engines (ICE) has been the backbone of the Industrial Revolution. With Electric Mobility, we are moving towards the future with immense technological opportunities. Due to fossil fuels depletion and environmental pollution, Electric mobility has become an unavoidable part of the energy transition from ICE to Electrical. 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. The one-year Post-Graduate Diploma in Electric Mobility (PG-DEM) is a course for those who want to prepare for exciting careers in future mobility solutions. The course is designed for fresh graduates and experienced professionals working in the industries.

COEP Technological University is the torch bearer of Engineering education in Pune and India. The professionals of ARAI and the faculty of COEP Tech. Univ., together with other institutes and industries in India, will develop you for upcoming challenges and opportunities in the transition from ICE Mobility to Electric Mobility.

The course includes classroom lectures, video lectures, presentations and tutorials, all reinforced with practicals on state-of-the-art EV infrastructure. You will be exposed to current developments in ELECTRICAL VEHICLE technology, charging issues, and Government policies through case studies and real-world projects. One of the prime objectives of the course is to create innovators in the field of Electric mobility, and accordingly, the spectrum of learning is vast that goes from fundamentals to advanced technology.

What you will learn?

- Electric Vehicles system design and integration
- Energy Storage Systems such as Lithium-Ion Batteries, Supercharges and Fuel Cells
- Powertrains and controls in EV
- Thermal management and mechanical design of EV components and systems
- International standards, Government policies and regulations for electric mobility

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Faculty

In-house as well as renowned and experienced faculty from the industries, R&D organizations and other reputed institutes will be involved in teaching-learning process of the entire program.

Eligibility Criteria

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

Course Fee

Rs. 1,50,000/- (Rupees One Lakh Fifty Thousand only) for full course

Selection Criteria for Admission

Written Test / Interview

Total Number of Seats

40 Seats

Course Commencement Date

28th August 2023

For more details, please contact

Prof. M. R. Nandgaonkar

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DESIGN

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**STRUCTURE OF ONE YEAR FULL TIME POST GRADUATE DIPLOMA
IN
ELECTRIC MOBILITY (PG-DEM)
Trimester I**

Sr. No.	Course Code	Course Name	Teaching Scheme			Credits
			L	T	P	
1	PGEM1	Bridge Course a) Fundamentals of Automotive Electrical And Electronic Systems (for Mechanical group) b) Fundamentals of Automotive Mechanical Systems (for Electrical group)	3	0	0	3
2	PGEM2	Applied Mathematics	2	1	0	3
3	PGEM3	EV System Design and Architecture	3	0	0	3
4	PGEM4	Energy Storage Systems for Electric Vehicles	2	1	0	3
5	PGEM5	EV Motor Drives and Power Electronics	2	1	0	3
6	PGEM6	Lab 1	0	0	4	2
7	PGEM7	Mini Project 1	0	0	4	2
		Total	12	3	8	19
		Total Academic Engagement and Credits	23			19

Trimester II

Sr. No.	Course Code	Course Name	Teaching Scheme			Credits
			L	T	P	
1	PGEM8	Vehicle Dynamics and Traction Systems	2	1	0	3
2	PGEM9	Sensors and Controls in Electric Vehicles	2	1	0	3
3	PGEM10	IOT for Electric Vehicles	3	0	0	3
4	PGEM11	Elective 1	2	0	0	2
5	PGEM12	Elective 2	2	0	0	2
6	PGEM13	Lab 2	0	0	4	2
7	PGEM14	Mini Project 2	0	0	8	4
		Total	11	2	12	19
		Total Academic Engagement and Credits	25			19

Trimester III

Sr. No.	Course Code	Course Name	Teaching Scheme			Credits
			L	T	P	
1	PGEM14	Industrial In-Plant Training (15-18 Weeks)	0	0	0	12
		Total	0	0	0	12
		Total Academic Engagement and Credits	0			12
		Course Total Credit				50