

Type of Event: Workshop

Name of the Event: Electric Vehicle & Beyond

Coordinator's Name and contact Details: Dr. Rehana Perveen, Phone - 8799129570, email ID- rehana.e9512@cumail.in

Student Coordinators:

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Objectives of the Program

Environmental concerns due to emissions and the depleting fossil resources are turning the attention of the automobile manufactures and the public towards renewable sources like solar and wind which are carbon emission free. Conventional engines in the automobiles are replaced by battery and electrical motors which can be designed as power converters. The important components of the system are the battery charging stations which have AC or DC inputs from the grid network or directly from the Renewable Energy Sources, batteries in the vehicles, converters and electric motors. The government is encouraging research in Electric Vehicles due to the advantages with monetary benefits to the manufacturers and users.

Outcome of the workshop

Participants will be able to understand the various parameters of

1. Modelling and Simulation of Electric and Hybrid Vehicle
2. Electric and Hybrid Vehicle Technology
3. EV Batteries & Charging System
4. Vehicles Networking
5. Battery Management System
6. Job opportunities & Internship
7. Development of Professional Skills
8. As a future career prospective in Electrical vehicle engineering

9. Best Entrepreneurship opportunities accessible.

10. Global exposure in Multinational companies like Tesla, Toyota, Mahindra & Mahindra ltd and many more

Experts:

Mr. Prasanthkumar Palani, Automotive Homologation Engineer, Haritha techlogix

Bangalore

Contents of the program

- Fundamentals, Performance and Control of Brushless DC Motors.
- Power Drives for Electric Vehicles.
- The Future of Electric Mobility in India – Challenges & Opportunities.
- Electric Vehicles Development and Case study on Battery, Infrastructure, Regulation and Safety aspects. Case study of Electric Vehicle Car Models Development.

Duration of event:

Days	Session- I (10-12)am	Session- II (2-4)pm
30 Aug 2021	Electric Vehicle components & system architecture Part I	Electric Vehicle components & system architecture Part II
31 Aug 2021	Role of Modelling and simulation in electric vehicle systems design	Opportunities in Testing of electric and hybrid vehicles

Valedictory Session: From 4:00 PM onwards on 31 August 2021

Materials provided: Videos and reading material