



## Centre of Excellence in E-Mobility

*Certification by Greaves Cotton*

### Group-I:

1. Modelling, simulation and analysis of performance of a super capacitor for e-vehicles

### Group-II:

1. Propose a Scheme and Solution on time to recharge a battery by reducing the charging time.
2. A simulation model to study the behavior of a metal air battery(Fuel Cell) at different discharging current and temperature
3. Design and Development of a BMS system involving active balancing topology and an algorithm to implement the same.
4. Design and Development of Electrical vehicle propulsion model using MATLAB Simulink

### Group-III:

1. A Smart System to avoid congestion at the Charging Pool

### Group-IV:

1. Design and simulation of isolated power supplies for e-vehicles.

### Group-V:

1. Design and Simulation of Motor Equations to predict Power, Torque, Power consumption of vehicle and Range
2. Design of LED/LCD Cluster to display speed, Battery SOC bar, and odometer
3. Design of Hall effect Sensors in Motors to calculate speed of the vehicle in terms of RPM and KMPH

### Group-VI:

1. Aluminium air battery for electric vehicles

### Group-VII:

1. Development of a Fuel Cell Vehicle / Electric Vehicle via renewable energy route

### Group-VIII:

1. Accurate State-of-Charge Indication for Battery-Powered Electric Vehicles
2. Battery Management System for Electric Vehicles

### Group-IX:

1. Connected Electric Vehicles - Infrastructure Functions through Communication

### Group-X:

1. A Business Process Model for Reverse Logistics of Used Electric Vehicle Batteries
2. Cost-effective supply chain for electric vehicle battery remanufacturing

### Group-XI:

1. Technological benchmarking study of E-Vehicles with focus on Electric Vehicles in the Indian automotive sector.

### Group-XII:

1. Standards Practices and Certification guidelines for Electric Vehicles

### Group-XIII:

1. Customer journey mapping process of a typical Indian E-vehicle customer

**For Information Contact:**

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