

Tentative Curriculum for M.Tech (E-Mobility)

SEMESTER –I

1. E-mobility, and Fundamental of Electric and Hybrid Vehicles
2. Modelling, Dynamics and control of EVs
3. EV Batteries & Charging System
4. Artificial Neural Network & Fuzzy Logic Applications
5. Elective –I

Elective –I

- a. Power Electronic Converters for Smart grids and Electric Vehicles
- b. Modelling and Simulation of EHV
- c. Electric Vehicle 2 Grid / Grid 2 Vehicle technologies in Smart Grid

SEMESTER –II

1. Electric Motor drives & real time Control for vehicular traffic systems
2. EV Standards & Testing
3. IoT in EV Applications
4. Elective –II
5. Elective –III

Elective –II

- a. Vehicular networks in communication
- b. Intelligence and Communication in smart grid
- c. In-Vehicle Networking

Elective –III

- a. CAD & Optimization Techniques with specific reference to Electric Motors
- b. Computer Aided Modelling, Analysis of Electric Machines for EV drive application
- c. Energy storage & Conversion

SEMESTER –III

Project work Phase-1

SEMESTER –IV

Project work Phase-2