### Outcome & Recognitions

The innovative projects on Smart Control of Adaptive Automobile and Wireless Charging System for Electric Bicycle, developed under Center of Excellence for Electric Vehicles have got recognition through an article published in EV Tech News presented by Motor India Magazine. Erkey Motors Pvt. Ltd, Chhattisgarh has partly sponsored the innovative projects.

### Activities organized under Centre of Excellence for Electric Vehicles

- Webinar on Electric Mobility in India (Challenges, Technologies and Developments).
- Orientation Programme on Bridging the Skill Gap: Fostering Skills, Innovation & Employability.
- Three-day skill development programme on Electric Vehicle Engineering Fundamentals.
- Department of EEE, MECS organised AICTE sponsored online STTP on Recent Advances in EV Technologies - Series A, B, C & D.





Two-day Hands-on Learning Programme on "Electric Vehicle Engineering Fundamentals"





E-Auto E-Bike



# Matrusri Engineering College



(Sponsored by: MATRUSRI EDUCATION SOCIETY, Estd:1980)
(Approved by AICTE & Affiliated to Osmania University)
Saidabad, Hyderabad-500059, Telangana, India www.matrusri.edu.in
All B.E Programs (CIVIL, CSE, ECE, EEE, Mechanical) Accredited by NBA, IT

# CENTER OF EXCELLENCE FOR ELECTRIC VEHICLES



### Center of Excellence (COE) for Electric Vehicles

Center of Excellence (COE) for Electric Vehicles has been established in Matrusri Engineering College to serve as Technology Demonstrator for Training, Skill Development, Learning, and Research & Development.

### **Objectives:**

The main objectives of Center of Excellence for Electric Vehicles are

- To strive towards bridging the skill gap between the modern day learners and the workforce that is required for the future.
- To develop Innovative Products & solutions and use technologies to cater the most effective methods for Skill Development.

#### Background:

India has drawn up a blueprint to create a specialized workforce support to its electric mobility mission, which is expected to generate 10 million jobs. The plan involves creating a skilled workforce with electric vehicle expertise in areas such as design and testing, battery manufacturing and management, sales, services, and infrastructure. The Ministry of Skill Development and Entrepreneurship is preparing the program to cater to the workforce demand expected from the electric mobility industry. Center of Excellence for Electric Vehicles has been established in Matrusri Engineering College for transforming lives of students through technology based skill acceleration, fostering employability.

### Facilities at Center of Excellence for Electric Vehicles

- **♦** E-bicycle
  - o 250 W Motor, 10 AH Li Battery & Charger
- ♦ E-Auto L3
  - o 1 kW, 48 V Motor
  - o 48 V, 90 Ah Li lon DIY Battery pack
- Cell Impedance Testing Machine
  - o AC 110V-240V, 50/60HZ, 10-30W, 100ms
- Cells Charging System
  - o 3.7 V, 2 A for Li Cells
- Cells Discharging System2 A Discharge Circuit for Li Cells
- Battery Management System Standard Circuits, 12V-72V
- Battery Cells
  - o LFP Prismatic & Cylindrical
  - o NMC Cylindrical
  - o Coin, AA & C type



### MoU with SkillShark Edutech

The departments of Electrical and Electronics Engineering, Mechanical Engineering & Electronics and Communication Engineering of Matrusri Engineering College, Saidabad have signed MoU with SkillShark Edutech for technology based skill development education and establishing Center of Excellence for Electric Vehicles.



### Inauguration of COE

Centre of Excellence for Electric Vehicles is inaugurated by Sri Jayesh Ranjan, the Principal Secretary of the Industries & Commerce (I&C) and Information Technology (IT) Departments of the Telangana government.













Inauguration of Center of Excellence for Electric Vehicles

## Working Models developed by the students using facilities at Center of Excellence for Electric Vehicles





**Smart Control of Adaptive Automobile** 



Wireless Charging System for Electric Bicycle

### **COE** Coordinator

Mr. GVSSN Srirama Sarma Assistant Professor, EEE Dept.

### **Department Coordinators**

- 1. Mr. M Srinivas Asst. Professor, EEE
- 2. Mr. Sampath Siddam Asst. Professor, Mech.
- 3. Mr. V Karunakar Reddy Asst. Professor, ECE