



## **BVRIT HYDERABAD College of Engineering for Women**

(Approved by AICTE | Affiliated to JNTUH)

(NAAC Accredited – A Grade | NBA Accredited B. Tech. (EEE, ECE, CSE and IT))

Bachupally, Hyderabad -500 090

***Name of the Event:*** Electric Vehicle Manufacturing with Golf Cart

***Date(s) of Conduction (DD-MM-YYYY):*** 01-11-2023 to 10-11-2023

***No. of Participants:*** 120

***Resource Person(s) with designation (if applicable):*** Skyy Skill Academy

***Faculty Co- coordinators:*** Dr. Prasanta Kumar Jena, Assistant Professor, EEE

### **About the Event:**

The Electrical and Electronics Engineering (EEE) Department of BVRITH College of Engineering for Women conducted a 10-Day workshop on electric vehicle (EV) manufacturing with golf cart in collaboration with Skyy Skill Academy. The program was designed for the II<sup>nd</sup> and III<sup>rd</sup> year students with the aim of providing both theoretical knowledge and hands-on experience in the manufacturing of electric vehicles.

The workshop began with a series of theoretical sessions covering the fundamental aspects of electric vehicles. Students were introduced to the concept of electric vehicles, their components, and the latest advancements in the EV industry. Key focus was on the development of EV models using CATIA software. Students engaged in the development of 3D models and gained proficiency in the virtual representation of EV structures.

The practical aspect of the workshop involved a step-by-step guide to the manufacturing process. Students engaged in material cutting, welding, polishing, and powder coating and painting of the chassis. The workshop progressed to the moulding of glass fibres for EV body parts, followed by the polishing and painting of these fibre parts. Students actively participated in cutting and welding sheet metal to construct the chassis frame. The assembling process was demonstrated and students were involved in assembling rear differentials, front axials, wheels, and the braking system.

Instructors provided detailed insights into the motor, controller, and battery, explaining the crucial connection steps. Students then actively participated in the installation of the motor, controller, and battery into the chassis. The workshop covered the cutting of rooftop sheet metal,

followed by punching, polishing, and painting of the rooftop. Students were actively engaged in the wiring and connection of motor, controller, battery, light key indicators, and other electronic components.

The culmination of the workshop involved final polishing of the assembled electric vehicle. Following this, students were given the opportunity to participate in a test drive of the developed model, providing them with a real-world experience of their efforts.

With an impressive participation of 120 students, the workshop set out to provide a holistic understanding of EV manufacturing. The workshop enhanced the students' theoretical understanding of electric vehicles and provided them with practical skills in manufacturing and assembly. Participants gained hands-on experience in various manufacturing processes, from material cutting to the assembly of complex components. The workshop encouraged teamwork and collaboration as students worked together on different aspects of EV manufacturing. The hands-on training allowed students to apply theoretical knowledge to real-world scenarios, preparing them for future challenges in the electric vehicle industry. The workshop equipped students with skills that are highly relevant to the growing electric vehicle industry, enhancing their employability.

**Photos:**



**Sign of Faculty Corodinator**

**Sign of HoD**