Enhancing electric vehicle battery reliability: failure recognition, testing, and life prediction

***1**Megha Dhote, **2**Shivani Dehariya, **3**Shubham Rahangdale,
4Somnath Gurjar, **5**Suman Kumar Jha*

Assistant Professor, Department of Electronics and Communication Engineering, Bhopal Insititue of Technology, Bangrasia, Bhopal, (MP), India
2,3,4,5 Department of Electronics and Communication Engineering, Bhopal Insititue of Technology, Bangrasia, Bhopal, (MP), India

*Corresponding Author: Megha Dhote

Abstract:

With the pressing need to mitigate vehicle emissions and the escalating demand for fossil fuels, automotive manufacturers worldwide are exploring alternative avenues to introduce new car models that can captivate the market. Electric Vehicles (EVs) have emerged as a promising solution to leverage current global concerns regarding fossil fuel prices and environmental impact. Given the pivotal role of car batteries in the overall performance of EVs, numerous researchers are dedicated to enhancing this crucial component. This paper delves into the reliability of EV batteries, encompassing aspects such as failure recognition, testing methodologies, and life prediction techniques. By addressing these key elements, the paper aims to identify reliability features, ultimately leading to the extension of battery lifespan.

Keywords:

Electric vehicle battery, Reliability improvement.