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Solution for Predictive Maintenance and Battery Life Saverfor Electric Vehicles

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Abstract: In today's era, due to inflation, environmental pollution and expensive maintenance of diesel vehicles, people will definitely think about the use of electric vehicles as an alternative. Electric vehicles are made up of two main components such as BLDC motor and battery which are used for energy storage device. The prototype of this device is necessary to optimize the use of batteries and is designed to monitor and detect the battery status. By using the parameters of voltage and current, the battery status will be predicted. These parameters are managed by the BMS (Battery Management System). In addition to this, it will display the voltage and current, battery parentage of vehicle, status of the battery through LCD display. It will also alert you before the battery become drain. In case, there is no other charging station nearby and the primary battery is drained completely the system will automatically switch to the secondary battery with the help of relay.

Keywords: Battery, BMS, Micro-controller, Motor, LCD Display, Voltage Sensor, Current Sensor, Relay, etc.

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