ABSTRACT

Battery Management System (BMS) needs realtime and accurate information, if there is no monitoring system, it will complicate the monitoring system. The solution is to make a system that supports BMS monitoring based on web applications, the method is to use Arduino as a microcontroller and ESP8266 as data communication. This final project aims to make it easier to monitor the results of the battery monitor and also the monitoring system and also display the sensor values in the web application, the battery management system can be accessed without being limited by distance and time, this system is tested with several comparisons of how accurate the delivery of sensor values received by the database and the ease of use of the system created, the results of scenario testing using a web-based application that can monitor the battery from anywhere to find out the voltage, current, and soc parameters in the BMS which has an average value of 40V voltage, 24209mA current, and soc 40%. This monitoring system is designed using Laravel, MySQL, and Bootstrap.

Keywords: Battery management system, Monitoring System, Microcontroller