

ABSTRACTS

Car is one of the means of transport are often used in daily life - today. Its use is practical and comfortable making the car to be excellent. Due to the higher oil prices, make a lot of people are looking for alternative fuel cars, one of which is an electric car. Currently, the development of electric cars in Indonesia is becoming the talk. Batteries become one of the discussion on listrik. Baterai car on electric cars that use an assortment. It takes control and monitor appropriately to make the electric car as an efficient vehicle with proper battery management.

In this final project will be designed system monitoring and management. The battery electric car batteries in electric cars will be taken data. Data to be monitored is the current battery voltage. Data from the sensor is processed and sent to the microcontroller Arduino Due. Then the data is displayed on the LCD in real-time. After that, two batteries than the capacity of the battery voltage in order to balance capacity. By doing so, the electric car battery condition can be easily observed and controlled, time and mileage of electric cars can be predicted.

Results from this study indicate that the battery balancing system running but is very slow. Balancer system takes 12 hours 54 minutes for balancing battery with a voltage difference is 0.9 V. While the battery monitoring system can predict the remaining time and distance of oncoming cars well and has performed measurements with a current average of 13 Ampere and the average voltage of 12.4 V The car can drive for 32 minutes 24 seconds with the distance of 1.46 km. By comparison in the table of the test with the rest of the predictions 13,72A current travel time is 38.2 minutes and 1.83 km. The predictions of the rest time and distance running properly.

Keywords: Battery, Balancing and Monitoring Battery, Electric Car