

## **ABSTRACT**

*Batteries in electric vehicles, especially scooters, are very important to monitor to avoid the danger of overheating or to maintain battery life. Air pollution needs to be reduced to reduce the effects of global warming, one of which is by using electric powered vehicles. In the current era, technological developments and mobility encourage people to innovate and create transportation tools that use electricity as an alternative energy source to replace fuel oil, one of which is an electric scooter. In order for an electric scooter to run, a source of electrical energy is stored in a battery that is flexible and efficient. Batteries have the property of converting chemical energy into electrical energy, so it is necessary to carefully monitor their capacity. This can be done by monitoring several important parameters, namely: voltage, current, temperature on an electric bicycle. On electric scooters, it is necessary to take regular battery indicator readings. In this research, temperature sensor and voltage sensor are connected to Arduino. Arduino then sends data from the two sensors to the Blynk application via an internet connection. Users can access this data from the Blynk application on their smartphone and monitor battery performance on the electric scooter. Data sent from Arduino to the Blynk application can be used to monitor battery conditions on electric scooters in real-time and assist users in making decisions regarding the use of electric scooters. Through the test results obtained an average value of power on the battery of 71,46 W at a speed of 10 km/hour, at a speed of 20 km/hour the average value obtained was 79,34 W, and at a speed of 30 km/hour the average value the average power obtained is 87,62 W. So, the higher the vehicle speed, the higher the required battery performance.*

**Keywords:** *Arduino, Battery, Blynk, , Electric Scooters, IoT.*