

## **ABSTRACT**

So far, students at universities who have large land and long distances between buildings make students tired quickly and student mobility becomes slow, even if students bring a vehicle the parking is still quite far from the lecture building and not to mention many vehicles are lost in the campus area. This shows the need for more effective and safer modes of transportation, such as electric otopeds. Utilizing an arduino microcontroller with a GPS module as a tool to monitor and check the presence of electric autopeds and the BLDC motor drive, it gets power from electrical energy from a lithium battery. The results of testing this system, electric otopeds can be used for a maximum distance of 40,6km and high mobility by students because of the 36v10,4ah battery power. This otoped has GPS installed, so students don't have to worry about finding the location of the otoped. Therefore, this electric otoped has been tested for its durability and efficiency, so it can be used on campus to facilitate mobility in the campus area.

Keywords: Scooters, BLDC Motor, GPS, Battery.