

ABSTRACT

The Increase of the human's life necessities, many people always think the easiest way to fulfill those needs, such as by applying technology into daily life, for example in the mobilization of people is always a lot of wasted time on the way, if it must be on foot.

In this final project the author will make a system such as an electric car that is small which can be used in certain condition, function for accelerate the mobilization human from the beginning to the point of interest enough to just stand on it, because these tools are small-sized size 37 cm x 30.5cm x 12,5cm (length x width x height) can be taken in accordance with the wishes of users, This tool will move according to the pressure exerted by the user manually, using loadcell sensor that is placed on the top of the tool, the pressure is converted into a PWM that will drive the DC motor, the decision-making system will be using fuzzy logic, so the system will try to make the appropriate speed received sensor.

This tool uses four wheels of which two front wheels are connected directly to the DC motor and two rear wheels that is passive, This tool uses four wheels of which two front wheels are connected directly to the DC motor and two rear wheels that is passive. By using a DC motor which has specs 24VDC, rated torque 18 kgf.cm, 36 kgf.cm stall torque, load speed 351 rpm $\pm$ 10%, no load speed of 468 rpm $\pm$ 10%, no load current $\leq$ 250mAh, Load current $\leq$ 2000mAh , For the control system on the robot using the fuzzy logic with the use of rule 25 and the robot can move properly when voltage above 24.6 volts.

Kata kunci : Mobilization, Loadcell Sensor, PWM, *Fuzzy logic*