

ABSTRACT

Car wash enterprises is one alternative to the selection of promising business, but these efforts have a major problem is the water consumption is not monitored is not effective and efficient which happens frequently depleted its water at the collection tank.

In this thesis the author designed the control system that can provide stability on water levels and provide information the total water is used. The system was designed using fuzzy logic Sugeno where arduino uno as controller, ultrasonic sensors as feedback, water pump used was DC pumps, flow meter to calculate the amount of water that has been used, the GSM module as a conduit of information to the user and indicator lights as a giver the status of the water level elevation.

Having realized fuzzy control system's ability to achieve the set point is 0.085 cm/ sec and ultrasonic sensor have error of 2:21%. It is expected that the authors make this system can help businesses in the carwash control the height of the water level automatically and can determine the total car that had been washed from the use of water consumed..

Keywords : carwash, water sensors, water pumps, ultrasonic, microcontroller, arduino, flow meter, GSM module, wavecom M1306B, fastrack