PLAN AND DESIGN OF PURCHASING SYSTEM IN AUTOMATIC GAS STATION USING RFID SENSOR

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Abstract

At the time of this growth industry that increasingly demands the existence of a fast sophisticated equipment to support the production process, particularly the level of security. With advances in technology, they found RFID (Radio Frequency Identification). RFID technology utilizes radio waves is in the process of identifying.

In this final task designed a system of payment on the automatic gas station using RFID sensor. This system uses a database by using Visual Basic. In the process charging of fuel, the user approach the ID card (tag) to the RFID reader, if the ID number on the tag is in the database, the user must enter the PIN, and then the user name and a deposit will be displayed on the LCD. After that, the user enters the number of liters or rupiah amount of gasoline that will be purchased through the keypad. Deposit that is used will be reduced by the amount microcontroller and sent back to the database.

From the results of the testing system as a whole can be known that the sensor is able to detect the tags in the distance between 1-6cm. On charging the 1 liter of an error occurred while 0.39% in the 2 liters of 2.19%. This can be minimalist with the electric valve that will manage the flow of water out.

Keyword : RFID, gas station, microcontroller, Visual Basic