

Fuel Monitoring, Tracking and Alarming System for Automobiles using Web

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Abstract— This system basically show fuel level in fuel tanks can be controlled and monitored in order to provide a cost - effective solution to an issue of fuel shortage. In this system the sensor will sense the fuel level if that level exceeds the limit of condition a message will be sent through using GSM. Then the transmitted the information will be sent to PC which is also be displayed in monitor through WEB browser.

get accessed to its fuel level at any instant wherever may be its vehicle.

Key words: Pentium Processor, ASP.net, Reed Relay

I. INTRODUCTION

Now-a-days we observe that the fuel consumption takes place on a large amount. So to have a proper and accurate information about the fuel level in automobiles this technique has been implemented. In this technique we can have the whole information about the present level of the fuel in a particular vehicle. We can track the level of the fuel intake whenever we wish to know about it.

It is necessary to inform the present fuel consumption to driver. But most industries hide the information of automobile. Therefore, by using this technique we will know how much fuel is consumed.

We have designed a technique which will help us to know the fuel intake and level of fuel by sitting at remote position. GSM net connector is used to connect to the automobile wherever it is. Text message will be send to the owner of the automobile. The owner will come to know all updates of fuel,

II. RELATED WORK

- 1) Remote Monitoring and Controlling System Based on ZigBee Networks: In this paper, we designed a system using ZigBee module.
- 2) Fuel Pump Control System Using Embedded System: In this paper, we can make use of key insertion process to carry out the procedure of fuel controlling management.
- 3) Fuel Monitoring and Vehicle Tracking: In this paper reed switch has been used. Also the hall effect has taken into consideration to measure the amount of fuel into the tank.
- 4) Estimation of Fuel Consumption using In-Vehicle Parameters: In this paper, we can come to know about the fuel level using on board diagnosis-II.

III. PROPOSED WORK

As seen earlier in the survey, it has been seen that many techniques are used to reduce the consumption of the fuel to a greater extent. Web based application is used in our project to know the proper consumption of fuel and exact information about the fuel whenever needed. The user can

IV. BLOCK DIAGRAM

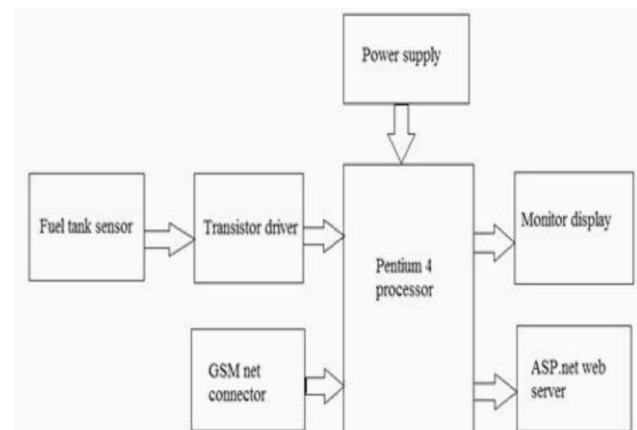


Fig. 1: Block Diagram

1) Explanation

It consist of transmitter unit. In that transmitter unit it consist of various components such as pentium processor which is a line of single core desktop and laptop and entry level server central processing unit .The whole circuit is operated by using the power supply. It has fuel tank sensor which sense the level of fuel and produce binary combination of number at the output, which has transistor driver which in turn produce high low pulse at the digital pins of LPT ports of pentium processor. The ASP .NET web server contributes to collect and process the signal received by the transistor driver and will store the data at the back end server on the time basis. If a particular operator wants to operate the system by another means they can access that system by the means of GSM module and message will be send to the user by using GSM. This can be done using GSM net connector. The output can be received on the monitor display as shown in the block diagram.

V. CIRCUIT DIAGRAM

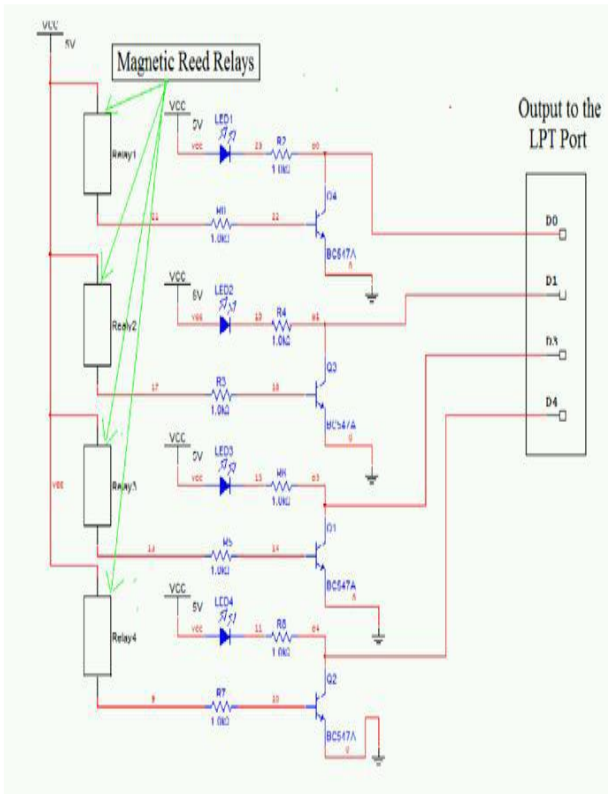


Fig. 2: Circuit diagram

VI. RESULTS

A. Designing A Web Page

The below web page is the user ID page created using Visual Studio. This web page is designed to send information. The web page contains user ID and password textboxes. The issued person can only be able to access this web page. The person issued can only login through this page with valid password and user-ID.

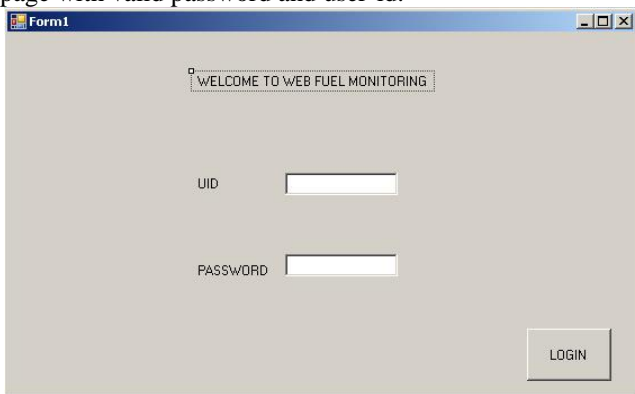


Fig. 3: Web page

B. Writing Code in Visual Studio

Writing a code in Visual Studio for monitoring alert. Different labels are assigned for different levels of fuel for ex. 1 ltr, 2 ltr, 3 ltr, 4 ltr. As the level of fuel in fuel tank increases the LED glows and the level indicator on web page shows different levels.

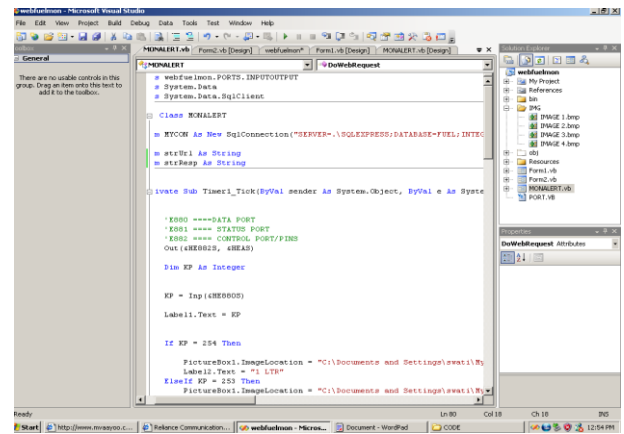


Fig. 4: Coding in VB.net

C. Final Fuel Level Monitoring

The different fuel levels are shown continuously along with date and time is shown on the screen. The number of number plate assigned to the vehicle is shown on the screen. In this programming we had used the timer through which we can refresh the status of the fuel level. Whenever we get accessed to the content of the fuel we should know the exact amount, henceforth we had set a timer. Also if there is a range problem we can get the proper information about the previous level.

VEHICLE NO	FUEL LIT	EVENT OCCURED
MH15-9796	1 LTR	3/11/2016 8:26:09 PM
MH15-9796	1 LTR	3/11/2016 8:26:10 PM
MH15-9796	1 LTR	3/11/2016 8:26:11 PM
MH15-9796	1 LTR	3/11/2016 8:26:11 PM
MH15-9796	1 LTR	3/11/2016 8:26:12 PM
MH15-9796	1 LTR	3/11/2016 8:26:12 PM
MH15-9796	1 LTR	3/11/2016 8:26:13 PM
MH15-9796	1 LTR	3/11/2016 8:26:13 PM
MH15-9796	1 LTR	3/11/2016 8:26:14 PM
MH15-9796	1 LTR	3/11/2016 8:26:14 PM
MH15-9796	1 LTR	3/11/2016 8:26:15 PM
MH15-9796	1 LTR	3/11/2016 8:26:15 PM
MH15-9796	2 LTR	3/11/2016 8:26:16 PM
MH15-9796	2 LTR	3/11/2016 8:26:16 PM
MH15-9796	2 LTR	3/11/2016 8:26:17 PM
MH15-9796	2 LTR	3/11/2016 8:26:17 PM
MH15-9796	2 LTR	3/11/2016 8:26:18 PM
MH15-9796	2 LTR	3/11/2016 8:26:18 PM
MH15-9796	1 LTR	3/11/2016 8:26:19 PM
MH15-9796	1 LTR	3/11/2016 8:26:19 PM
MH15-9796	1 LTR	3/11/2016 8:26:20 PM
MH15-9796	1 LTR	3/11/2016 8:26:20 PM
MH15-9796	1 LTR	3/11/2016 8:26:21 PM
MH15-9796	1 LTR	3/11/2016 8:26:21 PM
MH15-9796	1 LTR	3/11/2016 8:26:22 PM
MH15-9796	1 LTR	3/11/2016 8:26:22 PM

Fig. 5: Status of fuel level

VII. FLOW CHART

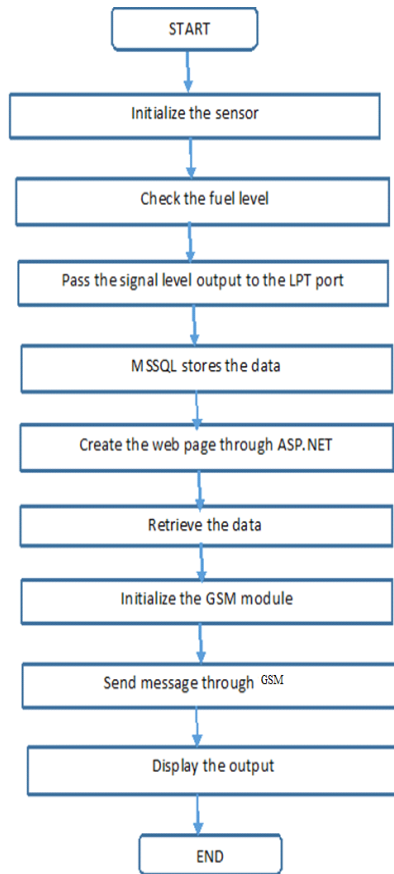


Fig. 6: Flow Chart

VIII. ADVANTAGES

- This system has simple components and simple construction on circuit.
- It is possible to implement this system on small space board also.
- GSM system used in our project provides quick data communication over long distance.

IX. LIMITATIONS

- This system may suffer at remote areas where there is a problem with GSM range.
- And also the circuitry needs to be changed.

X. APPLICATIONS

- Automobiles which consumes large amount of fuel.
- Government vehicles in which there are many chances of fuel theft.
- It can be also used in various industries.

XI. FUTURE SCOPE

- There will be reduced level of fuel consumption which takes place unnecessarily.
- This project can be used in industries also.
- Also vehicle tracking can be done by using such techniques.

XII. CONCLUSION

In this project we can track the fuel level in a particular automobile whenever needed. If we are at any other station and want to get access to that information we can get done that by using GSM technique. At any instant we can retrieve the information about the fuel content.

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