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TECHNOLOGY****GSM BASED INDUSTRIAL FAULT DETECTION****Nehere Priyanka, Neharkar Akanksha, Kashid Pranali, Raut A. R.**

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ABSTRACT

This project is implemented on the observation of the industry. This system implemented for to find out the industrial fault during the production. Now days many accident are occurs in the industry to avoid this accident in the industry we are implemented this project. The aim of this system is to grow the standard of the industry. We tried to developing the system in the low cost and easy to find out the fault. This design is simple in hardware circuit the industrial user easy to use this wireless system with the help of the LPG sensor, temperature sensor and smoke sensor.

KEYWORDS:- Microcontroller, LCD, GSM, MQ6, LM38, LPG sensor**INTRODUCTION**

This detection system mainly uses three sensors. There are use the sensor are the namely Temperature sensor, Smoke sensor, LPG sensor. The temperature sensor are use for detect the overheat in the industry. The smoke sensor use for the detection of the smoke from the fire. LPG gas sensor are use for the leakage detection of the gases. The GSM modem is turn on when the output of the three sensor are give the high output. If the any fault are detects give the high output then the buzzer is turn on and the SMS is send to the mobile. The GSM modem is use here if the output of three sensors are in the high or low the SMS is send by the modem.

MATERIALS AND METHOD**Microcontroller:**

This is the main part of the project. We are use the 89c51 microcontroller in this project. The microcontroller has many functions. This Reading the digital information or input from the various the sensor through the ADC and the comparator. Send the microcontroller this digital data to the LCD so that the user will operate this project on the status given by the our three sensor. The SMS is send through the GSM modem.

Temperature sensor:

This sensor are use to find the temperature in the industry if the overheat in the any problem. It shows the temperature industry through the help of the LCD.

Smoke sensor:

It detects the smoke from the fire. If any fires are occur in the industry. If any people are smoke then it can be found.

LPG gas sensor:

If any gases are leakage then it can be detect to this sensor.

GSM Modem:

SIM 900 GSM modems are use in this project. If any temperatures are increase, gases are leakage and smoke are detect then send the message on GSM.

LCD :

LCD is alphanumeric display. In this project we can use 16*2 LCD to display the message whenever fault are detect.

ADC:

The ADC are use to convert continuous physical quantity input to the digital output so that microcontroller can read and process them.

Comparator:

It is use to compare if level is very high and give the output in the digital form. It compares two voltage or current and outputs is a digital signal indicating which is larger.

Buzzer:

Buzzer is a frequently employed to give the audio signal. For instant buzzing someone if the output of the three sensor are cross the threshold level the which are immediately start buzzing indicate that.

Block Diagram:-

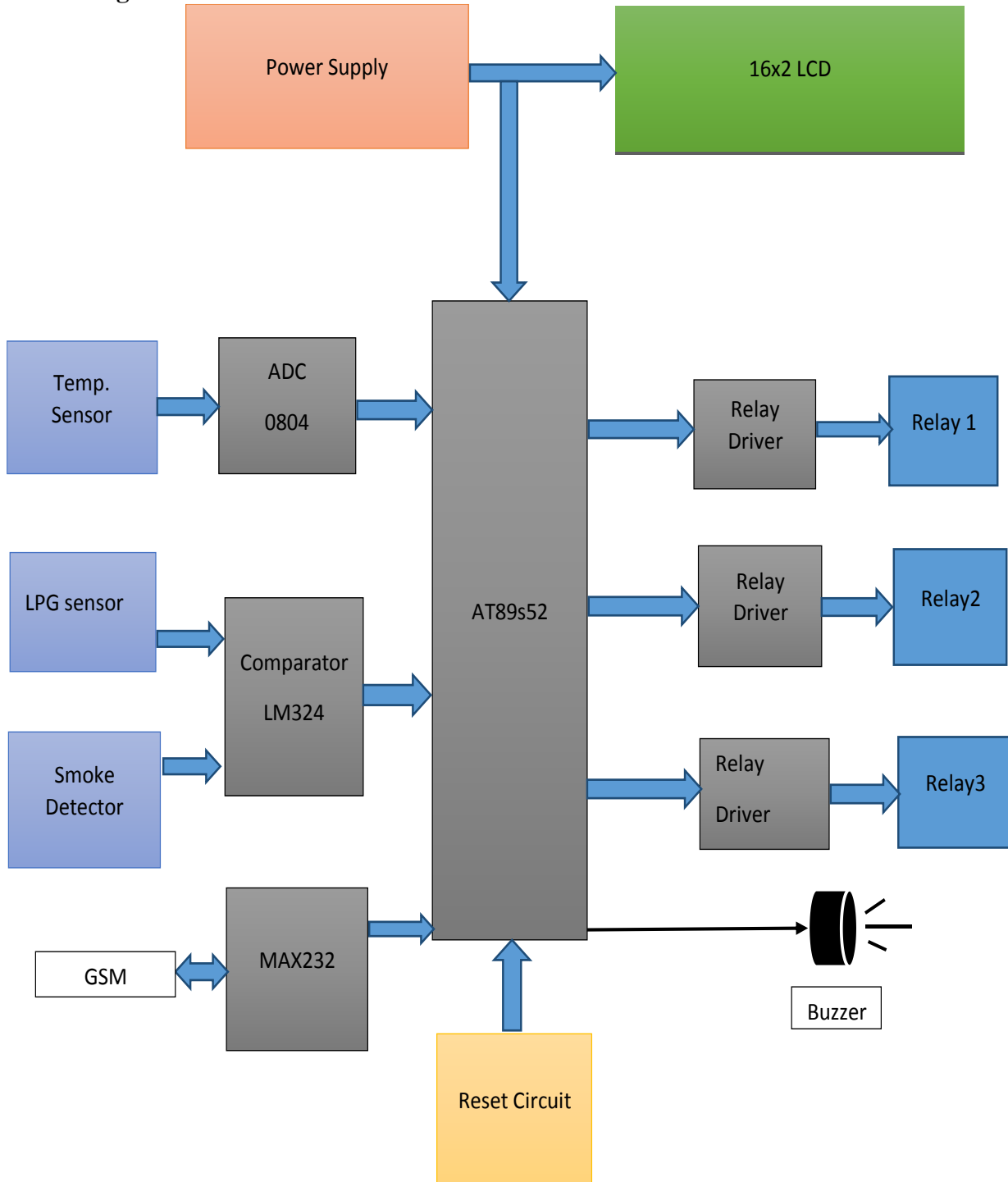


figure 1. Block Diagram

Applications and Advantages:

- This project is applicable into the various industries.
- This project also use in the home.
- This is also applicable and also useful for the seminar hall and also in the conference hall.

Future Development:

- We can implement other related modules and also the various sensor.
- We can also use the GPS.

CONCLUSION

We can implement GSM based industrial fault detection system is very effective and useful in the industry. We can avoid maximum accident.

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