FIRE DETECTOR

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ABSTRACT :

The process of combustion where heat and light is released as by product is called fire. The light parameter and the colour information has many applications in computer Vision and the other domains. Our colour model-based method used for fire detection has many advantages over conventional methods of smoke detection etc. Such as simplicity, Possibility and the understandability. In order to enhance the performance parameters of fire the performance parameters of fire flame detection based on the live video stream; we propose an effective colour model-based methods for fire detection.

KEYWORDS :

Fire Detection, Arduino, Sensors, Buzzer

INTRODUCTION:

Now a days people want to make their life secure and to survive. In this research we present an Arduino based prototype of early detection technology.

Early the detection of fire in the home/work place the important action is to prevent the more fire and save lives. Protecting fire worth sensor can grow the ability the detection performance and early alarm. It monetarized the fires using a smoke level or threshold. The combination of fire sensor and smoke sensor give the compared result that can handle the non-fire situation. The fire detection and monitoring the use flame, smoke gas temperature and humidity sensor had been proposed and the combination gave the good result.

The fire system detection is difficult to sense.

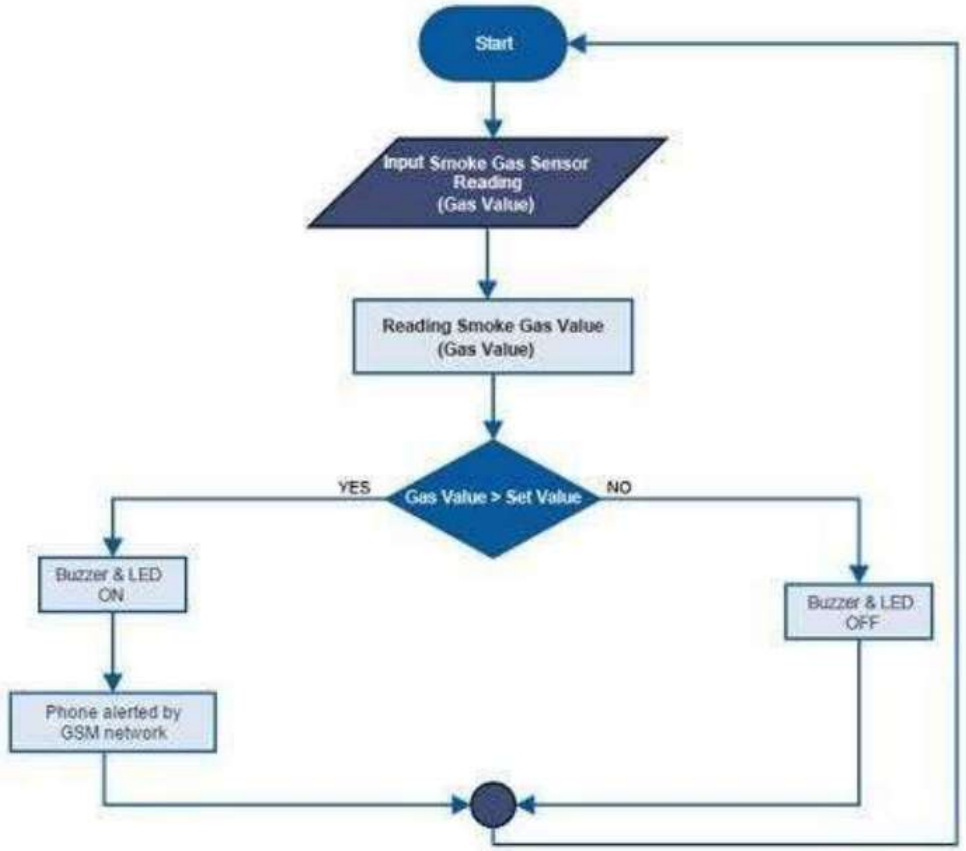
LITERATURE SURVEY

S. No	Author	Title	Year of Publication
1	Ahmed Imteaj	An IoT based fire alarming and authentication system for workhouse using Raspberry Pi 3	2017
2	Ondrej Krejcar	Future Trends and Current State of Smart City Concepts: A Survey	2020
3	Azka Ihsan Nurrahman	Intelligent home management system prototype design and development	2015

EXISTING MODEL:

The evolution of fire detection is taken from the M. Kironji, had worked on this project. He had used the different types of materials like infrared LED, transistor, buzzer. The main defect of his project is it gives the intimation only in dark or dim areas. Automatic fire alarm system is composed of fire alarm detectors, fire alarm controller and other on-site alarm component. In accordance with Fire Code, fire alarm detector has inductive smoke detectors, temperature detector alarm button manually.

FLOW CHART


Start
Input Smoke Gas Sensor Reading (Gas Value)
Reading Smoke Gas Value (Gas Value)
YES
Gas Value > Set Value
NO
Buzzer & LED ON
Buzzer & LED OFF
Phone alerted by GSM network

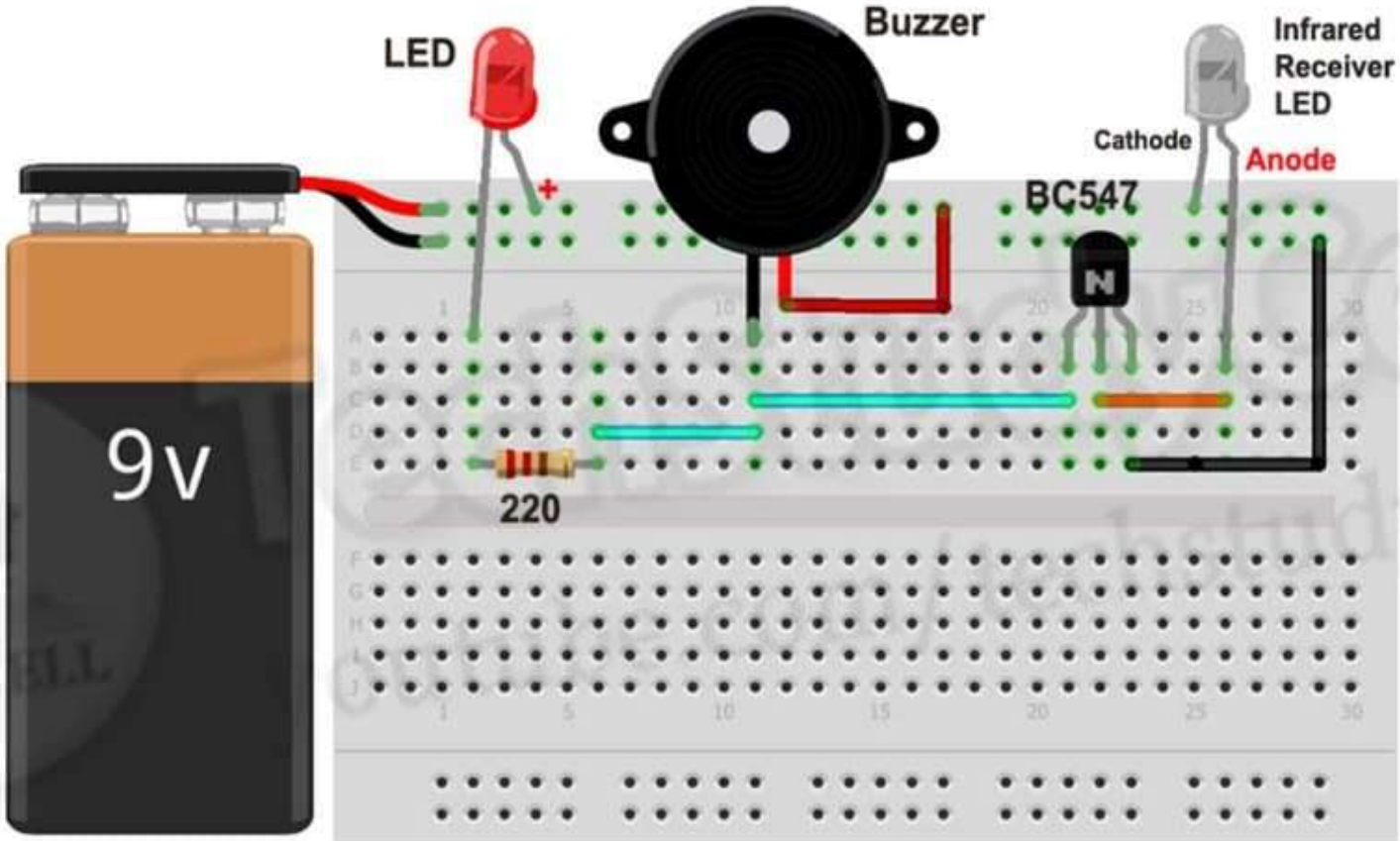
PROBLEM STATEMENT AND OBJECTIVES OF PROJECT

The main object of the project is to be detect the fire or smoke by using sensors. It is an imperative that fire detection is regularly maintained by checking operative properly. Automatic fire detection usually sensory or heat and it can be difficult to setting avoid false alarm in the immediate action.

PROPOSED MODEL:

In order to overcome the problem in the existing I have introduced new method in the fire detection. Modified by using IOT technology. By using the Arduino and fire sensor instead of transistor and LED. By using this IOT technology the fire detector works in dark and dim areas

RESULTS



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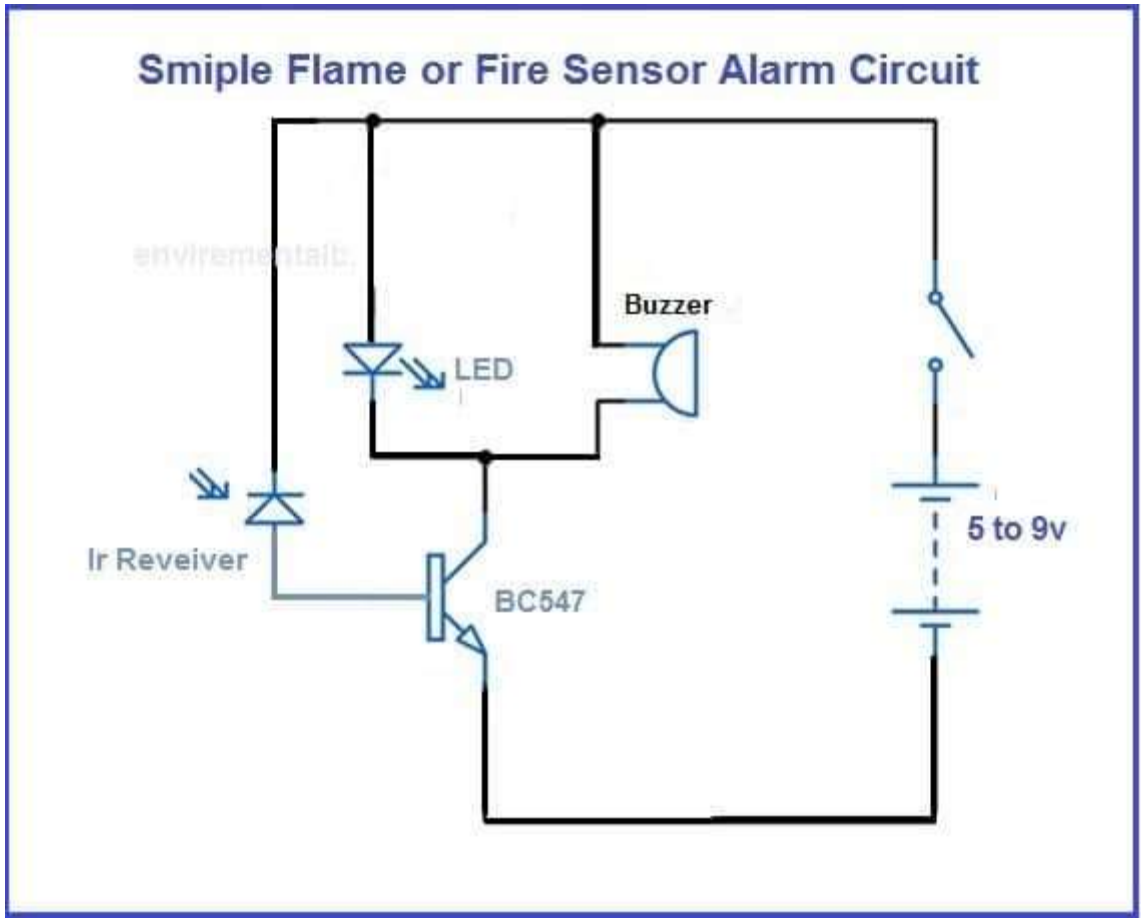
CIRCUIT DIAGRAM



Conclusion

Based on our research we feel that the line detector is an essential to every one's household. A fire alarm is a device that detect the presence of fire and atmospheric changes relating to smoke. In some cases a fire alarm is a part of complete security system. In addition to burglary protection system. The fire alarm operates to alert people evacuate a location in which fire will accumulation is present. When functioning properly, a fire alarm will sound to notify people of and immediate fire emergency.

Future Scope

Fire accidents can be controlled to a great extension a places such as forest, homes, collages, industries, trains and some other public places. Fire accidents leads to death of excess of people, by using this technique we can save those life's easily.


Thank you