Literature Survey

Industry-Specific Intelligent Fire Management System

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FireNot - An IoT Based Fire Alerting System : Design and Implementation

Source:

Research Gate Authors: Bahman A. Sassani, Noreen Jamil, M G Abbas Malik and S S Tirumala.

Objective:

To provide an alarming system with low cost, ease of implementation, called FireNot an efficient IoT system for warning and alerting fire accidents.

Methodology:

FireNot is a cloud based system that uses sensors (hardware) to detect fire and alert the user through the internet and is maintained and monitored using a simple Android app. Raspberry Pi programmed through Python language and utilizes Google API for location detection.

Outcome:

A low cost IoT based fire alerting system called FireNot has been developed. The system provides a real time monitoring of the fire incidents and provides an alert to the user through computer and mobile interfaces. FireNot uses Raspberry Pi with the interface programmed using Python which provides a low cost yet efficient system which consists of both hardware and software.

Future scope:

The future implementations are concentrating and looking at developing an interface that could provide customisable interfaces and can report the incident to concern people that may be fire station / emergency or others to provide an immediate action.

Fire Monitoring and Controlling System based on IOT

Source :

International Journal of Engineering Research & Technology (IJERT)

Authors:

Nitin Galugade, Mahesh Jakkar, Devika Nair, Madhur Gawas

Objective:

Fire being unattended can lead to a lot of losses like property, human,etc. This is an IOT (internet of things) based fire monitoring and controlling system which not only gives the real time information about the situation on the monitor but also takes the corrective action as per the need.

Methodology:

The sensors transfer data wirelessly with the help of MQTT (message queuing telemetry transport) networking protocol which is designed for constraints with low-bandwidth. MQTT allows us to send commands to control output, read and publish data from sensor nodes and much more.

Outcome:

The amount of temperature and humidity is sensed by the sensor and control action is taken automatically to put off the fire generated.

Future Scope:

An IOT based Fire Alerting system using Temperature and a smoke sensor which would not only signal the presence of fire in a particular premise but will also send related information through IOT.

Developed Intelligent Fire Alarm System

Source:

Research Gate

Authors:

Hussam Elbehiery

Objective:

The principle of operation of IOT based fire alarm system was shown by operating the system was shown by operating the system which include control panel, alarm initiating devices, notification appliances and the accessory equipments necessary for complete functioning fire alarm system.

Methodology:

This fire alarm system includes smoke detectors, heat detectors, gas and flame sensors. By monitoring all these parameters this system decides whether or not to initiate the corrective measures using RF wireless technology.

Outcome:

The main advantage of this project is to prevent fire accidents and gas leakage and necessary actions as required with real time monitoring services.

Future Scope:

This project can be improved by providing the user with a radio transmitter that can trigger the system in case they need assistance.