INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM

Fire is deadly causes human life and properties.Fire detection systems are required to decrease the damage of belongings of individuals caused due to fire by both man and those which are induced.The bureau of the nation crime records has indicated that there are total of 113961 deaths because of fire accidents in the year 2010-2014.Around 69 people become victims of fire accidents everyday.The fire extends drastically with time hence,early fire detection is essential for preventing accidents due to fire.

The major disadvantages of traditional fire detection system is that fire in remote areas cannot be detected.

Therefore,sensors are required to convey to long distance by transmission lines and also by instrumental amplifiers.Most of fire detection systems are making user of wireless sensor networks(WSN)they have achieved popularity due to their huge applications such as localization,health care and environmental monitoring.

INTERNET OF THINGS is a strategic apex in economic and development of technology now a days.On december 8th 2011 the government issued the "Twelfth five-year plan" for the IoT development .Here IOT has its application industry for the fire detection.In this the IOT and transmission of the processing of information and relaible and acheivable.

The IOT is the best solutions for the problems of lines being not feasible in some cases.IOT is embedded systems in which sensors and actuators are used and monitored and controlled with already present network of infrastruture.It makes way of computer based controlling for accuracy in operation.

The IOT based fire safety system starts with sensors that detects gas or smoke temperature.The further level consists of communicates hardware which is either by wired or wireless signals through the hardware called nodes,hubs or gateways which has the internet access.

All this informatiom should be linked to particular sensors information so when the fire disaster occurs the people in that place being made aware of it.elements which system could be linked together are ae follows;Sensors,Actuators,PLC,Motors and pumps,Ventilation systems,Alarms.Gateways,Cameras,PA systems,Servers,Smart apps.The archictecture of IOT system enables the varios aspects other than fire panels and sensors.

ADVANTAGES & DISADVANTAGES:

Wireless systems are simple,flexible and low cost with short delay improvements noticed in relaibility is also seen as merit of wireless systems.An IOT systems helps in building social bodies in technology and ensures that the fire security in urban areas and also control social stability.The timetaken in process is needed to be decreased for practical application.

APPLICATIONS:

Fire detection system is used in high rise building during early stages of fire disaster.Fire detection in warm house like garments plans,warehouses etc.Placing the cameras on towers in forests area can be used to monitor larger forests area and also detect forests fire.

CONCLUSION:

In the future efforts are to be put in the system,which also involves preventing the carbon monoxide poisoning inorder to assure safety of the home and ressidents.Work has to be done in order to discover the procedure that decreases the need of high amount of date rate.