Brainstorm & Idea Prioritization

Here we use this template to represent our problem statement and give our ides to prevent that. It gives workers to be work in trustable field. It helps to save so many peoples, workers, students and others life from fire Accidents.

1 Problem Statement

Without a Problem we can't get any inventions. Inventions are based on problems which we are faced in our daily life. Here we Take one problem in our day to day life and represent our ides.

⏱ 10 minutes

Fire Detection Systems are now widely used in various safety and security applications. The major amount of fires tarts due to the electric short circuit. It leads to damage to property and also loss of life. To avoid that or to minimize the damage caused by fire outbreaks due to electric short circuits an IoT Technology is used to control such a kind risk.

Traditional fire detection systems are not that effective and quick to alert the owner about fire, in case no one is present on the location. To overcome this problem in this paper we present the design and development of IoT based Fire Detection System. A system that combines qualities for fire, temperature and smoke detection, sending alert Text Message about the fire to the user along with onsite alarm(buzzer), updating temperature, humidity and smoke on ThingSpeak cloud every 15seconds, and it also moves manually with the help of Android Application. The Fire Detection System consists of four main parts: Multiple sensors, communication system (Bluetooth, GSM, NodeMCU), motion planning (Manual patrolling), and Android application for manual patrolling of the system. This Fire Detection system can be used in
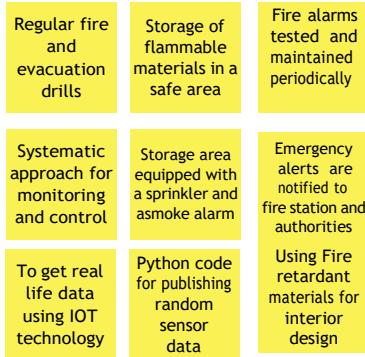
2 Brainstorm

By understanding our problem statement some ideas that come to my mind that address our problem statement.
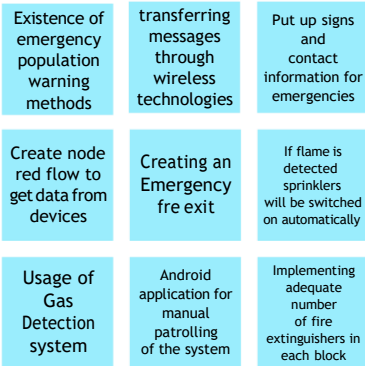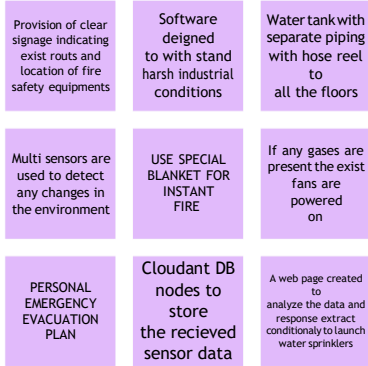
⏱ 10 minutes

VASANTHARAJ K

Regular fire and evacuation drills	Storage of flammable materials in a safe area	Fire alarms tested and maintained periodically
Systematic approach for monitoring and control	Storage area equipped with a sprinkler and asmoke alarm	Emergency alerts are notified to fire station and authorities
To get real life data using IOT technology	Python code for publishing random sensor data	Using Fire retardant materials for interior design

THARNEES·MK

Early detection using smoke sensor	Installing automated chamber locking	Updating temperature, humidity, and smoke on IBM cloud platform at periodic intervals
Sending alert text message about the fire to the user along with onsite alarms	Electrical fittings must be properly maintained	Maintenance of the emergency lighting
To provide a low cost fire alarm system	MAKE SPECIAL ROOM FOR FIRE MANAGEMENMT	Creating an Webapp to monitor the temperature, gas and Flame

YOGESHWAREN S

Existence of emergency population warning methods	transferring messages through wireless technologies	Put up signs and contact information for emergencies
Create node red flow to get data from devices	Creating an Emergency fre exit	If flame is detected sprinklers will be switched on automatically
Usage of Gas Detection system	Android application for manual patrolling of the system	Implementing adequate number of fire extinguishers in each block

THAMILVANAN M

Provision of clear signage indicating exist routs and location of fire safety equipments	Software deigned to with stand harsh industrial conditions	Water tank with separate piping with hose reel to all the floors
Multi sensors are used to detect any changes in the environment	USE SPECIAL BLANKET FOR INSTANT FIRE	If any gases are present the exist fans are powered on
PERSONAL EMERGENCY EVACUATION PLAN	Cloudant DB nodes to store the recieved sensor data	A web page created to analyze the data and response extract conditionally to launch water sprinklers

3 Brainstorm Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

⏱ 15 minutes

Preventive Measures

Sending alert text message about the fire to the user along with onsite alarms

Provision of clear signage indicating exist routs and location of fire safety equipments

Transferring messages through wireless technologies

Implementing adequate number of fire extinguishers in each block

Transferring messages through wireless techonologies

FIRE RISK

Fire exit

Maintenance

Storage of flammable materials in a safe area

Water tank with separate piping with hose reel to all the floors

Electrical fittings must be properly maintained

Maintenance of the emergency lighting

Fire alarms tested and maintained periodically

Applications

Updating temperature, humidity, and smoke on IBM cloud platform at periodic intervals

A web page created to analyze the data and response extract conditionaly to launch water sprinklers

To get real life data using IOT technology

Create node red flow to get data from devices

Android application for manual patrolling of the system

Advantages

To provide a low cost fire alarm system

Existence of emergency population warning methods

Existence of emergency population warning methods

Connects multiple buildings

Gives Workers to a trustable place

FIRE SAFETY

4 Prioritize

Priorities given to our project by time.

⏱ 5 minutes

♡ Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact

⚑ Feasibility

Regardless of their importance, which tasks are more feasible than others (Cost, time, effort, complexity, etc.)

IMPORTANCE (High / Low) vs FEASIBILITY (Low / High)

- Create node red flow to get data from devices
- Android application for manual patrolling of the system
- To provide a low cost fire alarm system
- Electrical fittings must be properly maintained
- If flame is detected sprinklers
- Software deigned to with stand harsh industrial conditions
- Systematic approach for monitoring
- Systematic approach for monitoring
- Python code for publishing random sensor data
- Android application for manual patrolling of the system
- Electrical fittings must be properly maintained