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 fire starts 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 of 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 15 seconds, 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 college, school, office, and industry for safety purposes.

2 Brainstorm

By understanding our problem statement some Ideas that come to my mind that address our problem statement.

10 minutes

Dinesh A

- 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

Pragadesh N R

- 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

Shri Krishnaa M

- 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 fire 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

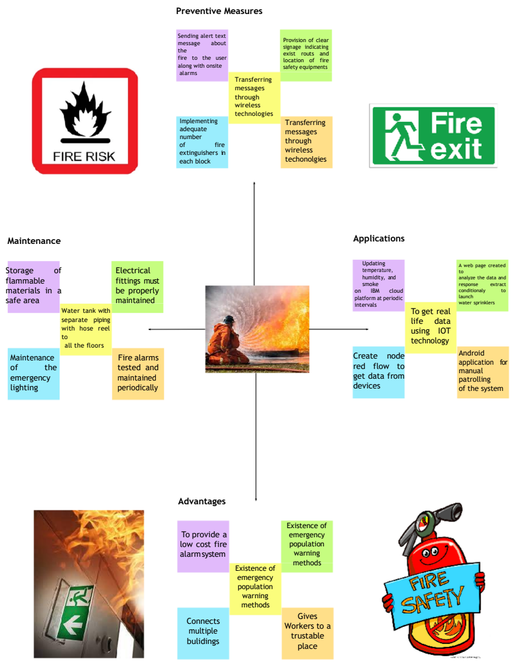
Jones Alwyn J

- 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 conditionaly 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



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.)