Ministry Category: - Students Innovation

Problem Statement: - Hardware- Security & Surveillance **Problem Code**: - #SIC1

Team Leader: - DEEKSHITH PATIL **College Code**: - #6158

Safety is one of the most necessary things that prevail among the minds of people in the world. Hazards of any form affects the lives of people to a large extent.

"Fire is never a gentle master". We at Fire cue, aim at minimizing the severity of fire accidents to the maximum since damages due to fire leads to huge economical loss as well as loss of life.

Our basic motto is to cut off the fire using water sprinklers, prevent people from panicking, alert the fire station with precise details which includes gps location as well as the building layout and thus a safe exit way out of the building. By the conventional methods, the concerned people come to know about the problem very late. But by our technique, we alert the concerned authorities of the situation as soon as something goes wrong.

The entire building is divided into small fragments for easy surveillance and fire sensors are fixed in each fragment. There is always a saying "whenever there is a fire, take the fire exit". But fire exits are not always fire proof exit. Hence in order to guide people to take the right path during fire accidents, we provide them with proper signals using lights.

As soon as there is fire in the building beyond a permissible limit, the water sprinklers connected to the active fire sensors as well as the adjacent sprinklers are activated. The adjacent sensors are also activated in order to ensure that the fire does not spread immediately to the neighboring places also.

The fire alarms are turned on and people are kept aware of the region under threat by using red lights and safer regions by green lights, hence providing the people with a panic and fire proof exit. This completely is monitored and controlled by micro controllers.

Following this, the fire stations and other concerned authorities are informed about the whereabouts of the accident, along with gps location of the building, precise location of the origin of fire and extent of severity, thereby helping them to analyze the situation and navigate to the core of the affected region promptly using SMS alert and a phone call.

One fine example where our project could have been of utmost importance is that of the fire accident that had occurred in THE CHENNAI SILKS, a retail textile shop in Chennai, Tamil Nadu. A major fire broke out in one of its store which was unnoticeable at the beginning. The fire went out of control and it could

not be put out for more than 72 hours. Finally, after the complete tragedy, the entire building had collapsed which caused them a loss of about ₹ 420 crores.

Our project would be highly essential in places which have multiple entrances and exits. Places such as railway stations, airports, multiplexes, shopping malls and places where people gather a lot, always demand safety from fire and our project would come as handy in these major places. The overall expenditure of our project would be relatively cheap when compared to all the other existing safety systems. Hence the overall "value for money" of our project is really high.

Dependencies/ Show stopper: - Sensitivity and range of sensors.