

**Project Design Phase-I**  
**Proposed Solution Template**

Date	21 October 2022
Team ID	PNT2022TMID18446
Project Name	Industry-specific intelligent fire management system
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	This project deals with the problem of fire management in industries, where the fire prevention is not optimized. Our project enables the organizations to meet the requirements of fire management systems. This system reduces the risk of fire and also ensures the safety of buildings and workers by detecting the cause of fire and preventing the fire before spreading.
2.	Idea / Solution description	The key research objectives are as follows: <ul style="list-style-type: none"><li>• The proposed system detects the flames, temperature and smoke automatically turns on sprinklers and exhaust fans, and notifies the authorities and fire station using APP UI.</li><li>• The Proposed system consists of flame sensors, sprinklers, exhaust fans, temperature sensor, smoke sensor and GSM (Global System for Mobile communication).</li><li>• Here changes in the environmental conditions are acknowledged by placing the sensors at the necessary position, which automatically turns on sprinklers and exhaust fans and alerts the authorities and fire stations.</li></ul>
3.	Novelty / Uniqueness	The uniqueness of this system is that it automatically opens sprinklers and exhaust fans after the detection of fire by various sensor's and it also informs the authorities and fire station without any human intervention.
4.	Social Impact / Customer Satisfaction	Persons in the industries aren't aware of the risks that surround them at work every day. Social impacts are fatal accidents that will reduce deaths of innocent lives, blocked roads and railway lines, electricity, mobile and land telephone lines cut, destruction of homes and industries.

5.	Business Model (Revenue Model)	The global fire protection systems market size is estimated to surpass USD 70 billion by 2027.This growth will increase the accidents due to fire in industries.Therefore government standards and regulations should be followed to reduce the risk of fire to save the life of people and property.
6.	Scalability of the Solution	Our project is highly scalable in every aspects.So this project deals with the idea of lot and real time fire management system to save the life of people and property.We're using various sensors to detect the cause of fire and taking necessary measures to reduce the fire at industries.Mobile apps and websites can be used to monitor the areas frequently.