Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID54096
Project Name	Project – Industry-specific intelligent fire management system
Maximum Marks	2 Marks

Proposed Solution Template

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Now a day's fire management system is fire alarming system which is pretty much used in several areas, but this fire alarm makes people to panic at the time of emergency. So we need a smart fire management system to predict the chance of fire accident occurring and also to inform the fire station and control room if any fire accident has occurred. Mainly to reduce the chance of fire accident occurring.
2.	Idea / Solution description	This fire management system has multiple sensors like temperature, gas, and flame sensors and also has a ventilation fan and water sprinkler. The data collected from the sensor is processed by using the microcontroller to enable the fan if flammable gas is present and the sprinkler will be enabled if any fire and large heat is detected by the flame and temperature sensors. This collected data from the sensors is sent to the cloud using the Wi-Fi connected to the microcontroller. From the cloud an alert message is sent to the fire station and the control room. Additionally, the live status of the area will be updated to the control room.
3.	Novelty / Uniqueness	This is an IOT-based fire management system.

It can be monitored from any Where with its like status update like gas level, temperature, and also to check is there any presence of fire. |
| 4. | Social Impact / Customer Satisfaction | It feels comfortable and safe to work or stay in that place.

No need to panic, all emergency steps will be taken automatically like sprinkler turn On, ventilation fan turn On and alter message will be sent automatically. |

5.	Business Model (Revenue Model)	This IOT-based fire management system replaces the normal fire alarm system because it has live track data and the record maintenance of the surrounding atmosphere of that place. This help for future reference. Easy to convey the fire accident message to the fire station so that loss of life is reduced.
6.	Scalability of the Solution	In future, any update in the software and hardware can be implemented for better performance and accuracy in the fire detection level. More features can be added in the hardware and software to be user friendly and steps to be taken immediately.