Project Design Phase-I
Proposed Solution

Date	04 November 2022
Team ID	PNT2022TMID12811
Project Name	Industry-specific intelligent fire management system
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Fire alarm systems are only effective if they can generate reliable and fast fire alerts with exact location of fire. There is a direct correlation between the amount of damage caused by fire and interventions time in various fire alarm systems. Hence the most important factor in a fire alarm system is the reaction or response time of fire alarm system.
2.	Idea / Solution description	**Point-based solution**-System consists of enclosed detectors with a fan system, which draws air samples to check the potential threat. **Laser-based solution**-Laser technology solutions detect smoke by drawing air into a laser chamber to identify a possible threat. It's the fastest-growing detector type, because these systems are designed to detect fire and smoke activity in large and open spaces, where smoke dilution and stratification can occur.
3.	Novelty / Uniqueness	• Voice Alert Systems • Limit Risks with Remote Monitoring • Multi-Sensor Detection • Embrace Machine Learning
4.	Social Impact / Customer Satisfaction	Our mission is to provide an exceptional customer experience that will earn continued business. • Quality • Integrity • Accountability • Reliability
5.	Business Model (Revenue Model)	• IOT Based Fire Alerting System uses two Sensors, namely, Temperature and Smoke sensors. Arduino has an inbuilt ADC converter, which converts the analog signals received at the sensor end to digital. The Arduino is programmed to turn on the buzzer

		when the temperature & the smoke reach a threshold value. • At the same time, Arduino sends the data to the Wi-Fi module ESP8266, it will then the following data to the IOT website.
6.	Scalability of the Solution	• To develop an automatic early warning system integrating multiple sensors to remotely monitor areas. • The signals and measurements collected from these sensors will be transmitted to a monitoring centre.