Project Design Phase-I
Proposed Solution Template

Date	**8November2022**
Team ID	PNT2022MID26362
Project Name	Emerging methods for early detection of forest fires.
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)	Fires have been a source of trouble. Fires have notable influence over the ecological and economic utilities of the forest, being a prime constituent in a great number of forest ecosystems. Fires are considered as a significant environmental issue because they cause prominent economical and ecological damage despite endangering the human lives. Due to the forest fires, several hundred million hectares of forest and other vegetation are destroyed every year. Therefore, we monitoring and early detecting of forest fire.
2.	Idea / Solution description	The propose a platform that uses Unmanned Aerial Vehicles (UAVs),which constantly patrol over potentially threatened by fire areas. The UAVs also utilize the benefits from Artificial Intelligence(AI) and are equipped with on-board processing capabilities. This allows them to use computer vision methods for recognition and detection of smoke or fire, based on the still images or the video input from the drone cameras. The system is designed for monitor the causingfactors of forest fires such as temperature, humidity , air pressure level, oxygen and Carbon dioxide on the surface of air.

3.	Novelty / Uniqueness	Using real-time monitoring, instant data allows pre-cursors to potential issues (such as corrosion) to be flagged up and immediately be addressed before major issues occur. The ability to make real-time decisions during critical moments can be vital in preventing forest fires.
4.	Social Impact / Customer Satisfaction	⍰ It gives the early detection of smoke and other temperature issues. ⍰ Reduce the potential damage as well as the cost of fire fighting. ⍰ The wireless sensor networks and machine learning was found to be an effective method for fire detection in forests that provides more accurate results.
5.	Business Model (Revenue Model)	The section presents the system deployment strategy and focuses on the sensor probes, wireless sensor networks and machine learning analysing the data obtained from the deployment environment.
6.	Scalability of the Solution	• Well monitoring system with accurate indication. • Easy maintenance. • Reasonable