Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID09764
Project Name	Project-Emerging methods for early detection of forest fires
Team leader	R Santhosh kumar
Team mates	J priyanka, M Santhosh kumar, M vaishnavi
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	**Description**
1.	Problem Statement (Problem to be solved	AI based Emerging methods for early detection of forest fire
2.	Idea / Solution description	A solution is needed that detects fires early by detecting smoke, hydrogen and other gases released by pyrolysis in the early stages of a wildfire, buying firefighters valuable time to extinguish the fire before it spreads out of control. Sensing solutions from Bosch Sensortec can help to reduce wildfires.
3.	Novelty / Uniqueness	Remote sensing Machine learning Wildfire prediction Data mining using Artificial intelligence

4.	Social Impact / Customer Satisfaction	The most important factors in the fight against the forest fires include the earliest possible detection of the fire event , the proper categorisation of the fire and fast response from the fire services . Several different types of forest fires are known , including ground fires , surface fires and crown / tree fires . Each of these types of forest fires is specific and the proper counteractions against it must be considered and implemented to successfully fight it . Over the years the detection of forest fires has been conducted in different ways , ranging from the use of forest outposts to fully automated solutions .
5.	Business Model (Revenue Model)	The annual losses from forest fires in India for the entire country have been moderately estimated at Rs 440 crores (US$ 107 million).
6.	Scalability of the Solution	Aerial-based systems gained recently a lot of attention due to the rapid development of UAV technology. Such systems provide a broader and more accurate perception of the fire, even in regions that are inaccessible or considered too dangerous for fire-fighting crews. In addition, UAVs can cover wider areas and are flexible, in the sense that they monitor different areas, as needed