

Project Design Phase-I
Proposed Solution Template

Date	16 October 2022
Team ID	PNT2022TMID12252
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)	<p>Statement: To find emerging methods for early detection of forest fires using artificial intelligence.</p> <p>Description: This technology is to be implemented to locate a forest or a bush fire based on the concept of deep learning and YOLO algorithm. After detecting, authorities are to be alerted immediately to mitigate any damage.</p>
2.	Idea / Solution description	<ol style="list-style-type: none"> 1. In case of forest fire detection, the burning substances are primarily identified as sceptical flame regions using a division strategy to expel the non-fire structures and results are verified by deep learning model. 2. The technology used to locate a forest or a bush fire is based on the concept deep learning and YOLO algorithm.
3.	Novelty / Uniqueness	<ol style="list-style-type: none"> 1. Accurate and reliable recognition of sceptical flame regions by means of using YOLO v3 algorithm. 2. Unlike previous algorithms, the exact location of the origin of the forest fire is also detected and sent to the application.
4.	Social Impact / Customer Satisfaction	<ol style="list-style-type: none"> 1. Since we are detecting the outbreak of the fire before it is too big, loses of life, destruction of various environmental, geographical resources can be avoided. 2. Can stop the emission of co2 into the atmosphere and other toxic gases.
5.	Business Model (Revenue Model)	<ol style="list-style-type: none"> 1. The software platform to provide the fully autonomous processing of data received from the camera of UAV to obtain live feed in application.

		<ol style="list-style-type: none"> 2. This can also be deployed as a mobile application for easy accessibility.
6.	Scalability of the Solution	<ol style="list-style-type: none"> 1. This application can be developed as a world-wide surveillance system to monitor different forests. 2. Filtration of false positive result by comparing the dataset with the video feed obtained.