

**Project Design Phase-1**  
**Proposed Solution Template**

<b>DATE</b>	22 October 2022
<b>TEAM ID</b>	PNT2022TMID33969
<b>PROJECT NAME</b>	Emerging Methods for Early Detection of Forest Fires
<b>MAXIMUM MARKS</b>	2 Marks

**Proposed Solution Template:**

<b>S.No</b>	<b>Parameter</b>	<b>Description</b>
1.	<b>Problem Statement</b>	The most common hazard in forests is forests fire. Forests fires are as old as the forests themselves. They pose a threat not only to the forest wealth but also to the entire regime to fauna and flora seriously disturbing the bio-diversity and the ecology and environment of a region.

2.	<b>Idea</b>	<ol style="list-style-type: none"> <li>1. Check weather and drought condition</li> <li>2. Carefully dispose of smoking materials.</li> <li>3. Avoid any activities that involve fire or sparks when it's hot, dry and windy.</li> <li>4. High temperatures raise the flammability of dry grass, leaves, trunks, or pine tar</li> <li>5. Wildland fire managers must constantly assess the threat of human-caused fire to wildlands and the threat of wildland fires to humans.</li> <li>6. Human-caused fires result from campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson.</li> </ol>
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3.	<b>Novelty</b>	<p>Forest fires (wildfires) are common hazards in forests, particularly in remote or unmanaged areas. It is possible to detect forest fires, elevated CO<sub>2</sub>, and temperature levels using Internet of Things (IoT) sensors. You can deploy IoT, satellite and solar sensors in remote areas without the need for internet, cellular/mobile or mains power.</p>
4.	<b>Social Impact</b>	<p>Blocked roads and railway lines, electricity, mobile and land telephone lines cut, destruction of homes and industries, and the way of life of many communities are annual news stories and the balance of the catastrophe caused by fire results in a wealth of articles, editorials and communications. A search in the newspaper archives reveals shocking figures, which we offer here to illustrate the magnitude of a problem which is now unsustainable and to which the managers and politicians responsible have become accustomed.</p>

5.	<b>Business Model</b>	<p>To support the entrepreneurial process, the business plan is of key importance. The business plan is a written document that describes all the relevant external and internal elements involved in starting a new venture. It is an integration of functional plans such as marketing, finance, manufacturing and human resources .</p>
6.	<b>Scalability of the Solution</b>	<p>Recommended strategies to be fully developed and implemented, they should collect substantial information about magnitude and timing of post-fire impacts. But the bottom line is that wildfire impacts should be incorporated into routine planning, protection and operations of forests watersheds and water sources.</p>