

## Project Design Phase-I - Solution Fit Template

**Project Title: Emerging Methods for Early Detection of Forest Fires**

**Team Id :PNT2022TMID20837**

Define CS, fit into CC	<div style="display: flex; justify-content: space-between;"> <div>1. CUSTOMER SEGMENT(S)</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">CS</div> </div> <p>In order to protect the forest resources, which are essential for supporting life on Earth, from sudden fire and smoke outbreaks. The forest management group does require this gadget. in places at risk of fire.</p>	<div style="display: flex; justify-content: space-between;"> <div>6. CUSTOMER CONSTRAINTS</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">CC</div> </div> <p>The devastation is caused by greenhouse gases and changes in the climate. The human tendency to consume resources greedily is another important contributing cause to forest fires</p>	<div style="display: flex; justify-content: space-between;"> <div>5. AVAILABLE SOLUTIONS</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">AS</div> </div> <p>For the purpose of detecting forest fires, existing systems use optical sensors. The sensors alert the office of forest management when a fire is spotted. In addition, satellites are utilised to find IR rays seen in forested areas</p>	Explore AS, differentiate
	<div style="display: flex; justify-content: space-between;"> <div>2. JOBS-TO-BE-DONE / PROBLEMS</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">J&amp;P</div> </div> <p>By releasing a lot of carbon dioxide, carbon monoxide, and fine particulate matter into the environment, the main issue is weather and climate. As a result, air pollution can lead to a variety of health problems, such as respiratory and cardiovascular disorders.</p>	<div style="display: flex; justify-content: space-between;"> <div>9. PROBLEM ROOT CAUSE</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">RC</div> </div> <p>The following are some rationales  1. Lightning, a natural occurrence  2. Man-made causes: cigarettes, naked flames, and electric sparks  Therefore, ongoing care and observation are required to protect natural resources in order to save lives.</p>	<div style="display: flex; justify-content: space-between;"> <div>7. BEHAVIOUR</div> <div style="background-color: #f08080; color: white; padding: 2px 5px;">BE</div> </div> <p>When fire is detected the sytem which is implemented to monitor the forests sets the alarm to ring, that is it gives the signal through which fire management team and the forest committee tries to call off the fire. Thus, the aim is to recognise the fire as early as possible to prevent spread of fire which will cause further damage and it'll become difficult to control.</p>	
Identify strong TR & EM	<div style="display: flex; justify-content: space-between;"> <div>3. TRIGGERS</div> <div style="background-color: #90ee90; color: white; padding: 2px 5px;">TR</div> </div> <p>Due to the existence of a great deal of dry grass all around and the possibility of the campfire remaining scorched, the uncontrolled behaviour toward burned cigarettes can spread.</p>	<div style="display: flex; justify-content: space-between;"> <div>10. YOUR SOLUTION</div> <div style="background-color: #90ee90; color: white; padding: 2px 5px;">SL</div> </div> <p>We have presented a method to detect forest fires early using CCTV camera surveillance, which can detect fire in both indoor and outdoor activities, in order to reduce these losses. In order for the forest management office to stop the damage brought on by the fire, immediate alarms must be given to them</p>	<div style="display: flex; justify-content: space-between;"> <div>8.CHANNELS of BEHAVIOUR</div> <div style="background-color: #90ee90; color: white; padding: 2px 5px;">CH</div> </div> <p>Online detection: As a result, the chatbot or the API can connect over the internet to provide you with information on the forest's present condition.  Offline Detection: As a result, the forest managers can notify surrounding residential areas or raise awareness through the media (news, radio).</p>	Identify strong TR & EM
	<div style="display: flex; justify-content: space-between;"> <div>4. EMOTIONS: BEFORE / AFTER</div> <div style="background-color: #90ee90; color: white; padding: 2px 5px;">EM</div> </div> <p>Since the variables that affect a wildfire's course and intensity are erratic and subject to alter at any time, they can be very stressful. People who have experienced wildfires may experience severe anxiety and mood swings.</p>			