

## Project Design Phase-I

### Problem – Solution Fit Template

Date	11 October 2022
Team ID	PNT2022TMID16663
Project Name	Project – Emerging Methods for Early Detection of Forest Fires
Maximum Marks	

### Problem – Solution Fit :

Problem-Solution fit canvas 2.0		Emerging Methods for Early Detection of Forest Fires	
Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span style="float: right;">CS</span> <ul style="list-style-type: none"> <li>Forest Officers</li> <li>Natives inhabiting Forests</li> <li>Environmentalists</li> <li>Rescue Officers</li> </ul>	<b>6. CUSTOMER CONSTRAINTS</b> <span style="float: right;">CC</span> <ul style="list-style-type: none"> <li>Lack of resources</li> <li>Lack of data</li> <li>Huge area to monitor</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <span style="float: right;">AS</span> <p>Mitigation after the occurrence of forest fires</p> <p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Easy to identify</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Difficult to respond quickly</li> <li>Resources are lost in the delayed response time</li> </ul> <p>Monitoring forests with sensors and cameras</p> <p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Better early detection</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Still has a long delayed response time</li> </ul>
	Focus on J&P, tap into BE, understand RC	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span style="float: right;">J&amp;P</span> <ul style="list-style-type: none"> <li>Early detection of forest fires</li> <li>Securing a emergency exit path</li> <li>Ensuring inhabitants have a way to save themselves</li> <li>Trapping forest fires within a range of area</li> <li>Reduce loss of lives of both flora and fauna</li> <li>Create a fast, utility - having and resourceful response team</li> </ul>	<b>9. PROBLEM ROOT CAUSE</b> <span style="float: right;">RC</span> <ul style="list-style-type: none"> <li>Lack of methods to detect forest fires before they actually appear</li> <li>The delayed response time</li> <li>Lack of mitigation mechanisms</li> <li>Lack of safety measures for people and flora &amp; fauna to protect themselves</li> </ul>
Identify strong TR & EM		<b>3. TRIGGERS</b> <span style="float: right;">TR</span> <ul style="list-style-type: none"> <li>Loss of lives</li> <li>Loss of flora and fauna</li> <li>Loss of huge areas of forests and natural resources</li> </ul>	<b>10. YOUR SOLUTION</b> <span style="float: right;">SL</span> <p><b>Emerging Methods for Early Detection of Forest Fires</b></p> <ul style="list-style-type: none"> <li>Our solution uses Artificial Intelligence to predict and detect Forest Fires way ahead from the time it occurs.</li> <li>Our solution helps us to create mitigation maneuvers to rescue people, flora and fauna</li> <li>It helps the Forest Officers and the Rescue Team to be ready to encounter a disaster</li> <li>It prevents loss of lives</li> </ul>
			<b>4. EMOTIONS: BEFORE / AFTER</b> <span style="float: right;">EM</span> <ul style="list-style-type: none"> <li>powerless / confident</li> <li>devastated / grateful</li> </ul>