Project **Title:** EMERGING METHODS FOR EARLY FOREST FIRE DETECTION

Project Design Phase-I - **Solution Fit** Template

Team lD: PNT2022TMID18694

1. CUSTOMER SEGMENT(S)

CS

Forest officer
Common people

6. CUSTOMER CONSTRAINTS

CC

Satellites allow for detecting and monitoring a range of fires, providing information about the location, duration, size, temperature, and power output of those fires that would otherwise be unavailable. Satellite data is also critical for observing and monitoring smoke from the fires.

S. AVAILABLE **SOLUTIONS**

AS

Avoid burning wastes around dry grass.
Obey laca! Iawe regarding open *li rev,* including *camqti rea*
Have firefighting tools nearby and handy.

"Use fire resistant roofing mater ials.
undertake *fleck nica!* checkups regularly.
Monitoring weather analytics,
monitoring thermal anomalies,
monitoring wator stress and temperature ri6as.

Focu

n J&P ta imto BE, unde

2. **JOBS-TO-BE-DONE/ PROBLEMS**

Satellite remote sensing offers a usefultool for forestfire detection, monitoring, management and damage assessment. During a fire event, active fires can be detected bydetecting the heat, light and smoke plumes emitted from the fires. This applicationuses real-time satellite data to detect and monitor forest fires (sending alerts to mobile devices), and understand fire patterns.

9. PROBLEM ROOT CAUSF

Forest fires cause lots of damage, some ofthem are — loss of wildlife habitat, extinction of plants and animals, destroys the nutrient rich top soil, reduction in forestcover, loss of valuable timber resources, ozone layer depletion, loss of livelihood for tribal people and poor people, increase in global warming.

7. **BEHAVIOUR**

When the people don't have knowledge about forest fire

10. **YOUR SOLUTION**

For this problem we use image processing and video analysis so by using satellite image processing we can able to find the fire at the early stage and stop spreading fire in the forest . This model is mainly build by using CNN and

machine learningand deep learning

3. TRIGGERS

Human-caused fires result from campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson.

8.CHANNELS of BEHAVIOUR

CH

ONLINE: fire alert
sensor

OFFLINE: Fire awareness program

4. EMOTIONS: BEFORE/ AFTER

EM

unsafe and worries about lives and

Before belongings

After : safety and relief