PROJECT DESIGN PHASE – I

PROBLEM – SOLUTION FIT

Date	11 October 2022
Team Id	PNT2022TMID26340
Project Name	Emerging Methods for Early Detection of Forest Fires

Define CS, fit into

1. CUSTOMER SEGMENT(S) — CS

People who live near fire-prone areas may want to have access to data and be more prepared for wildfires can threaten them. According to experts, people want to know more about the factors affecting them, especially in the high-risk area.

6. CUSTOMER CONSTRAINTS — CC

Climate change and the greenhouse effect are among the consequences of such destruction. Interestingly, a higher percentage of wildfire is due to human activity.

AVAILABLE SOLUTIONS — AS

Conventional detection methods such as satellite and optical systems can cover large areas. The satellite system identifies infrared signals and the optical system locates the plume of smoke.

Explore AS,

Focus on J&P, tap into BE, understand

2. PROBLEMS — J&P

Every year, approximately 340,000 and 4,444 premature deaths from respiratory disease and 4,444 cardiovascular disease are associated with wildfire smoke. The increasing frequency and severity of wildfires is an increasing threat to biodiversity worldwide. Individuals, corporations, and public institutions Fires cause huge economic losses.

9. PROBLEM ROOT CAUSE — RC

- Wildfires can disrupt transportation ,
- Loss of property,crops,resources ,animals and people's.
- Loss of biodiversity.

7. BEHAVIOUR — BE

Fire behavior can be described in terms of how a fire responds to the interaction of fuel, weather, and terrain (fire behavior triangle). The four main parameters used to describe the behavior of fire include speed of propagation, intensity of fire line , flame length, and flame height.

Focus on J&P, tap into BE, understand

Identify strong TR &

3. TRIGGERS — TR

Man-made fires are caused by 4,444 neglected fires, 4,444 incineration of garbage, equipment use and malfunction, 4,444 inadvertently discarded cigarettes, and 4,444 deliberate arson. Lightning is one of the two natural causes of fires.

4. EMOTIONS: BEFORE / AFTER — EM

People who are involved directly in disasters such as wildfires or exposed to the effects of disasters may experience lots of negative emotions. Losing your sense of security, control and certainty is a major source of Stress.

10. YOUR SOLUTION — SL

To minimize these losses, early detection of fire and an autonomous response are important and helpful to Disaster management systems. Therefore, in this article, we propose an early fire detection framework using fine-tuned convolutional neural networks for CCTV Surveillance cameras, which can detect fire in varying Indoor and outdoor environments

8. CHANNELS of BEHAVIOUR — CH

1. ONLINE

Helps to notify the data preprocessing information.

8.2 OFFLINE

You are in offline application manpower detection Can be done.

Extract online & offline CH of