

# Problem-Solution

## 1. CUSTOMER SEGMENT(S)

CS

People who live close to fire prone areas might also want access to the data and get to know when a forest fire is likely to endanger them in order to be more prepared. According to professionals, people would like to know more about what impacts them especially in high risk areas.

## 6. CUSTOMER CONSTRAINTS

CC

Climatic changes and the greenhouse effect are some of the consequences of such destruction. Interestingly, a higher percentage of forest fires occur due to human activities.

## 5. AVAILABLE SOLUTIONS

AS

Existing detection methods such as satellite and optical systems can cover large areas; satellite systems identify infrared signatures, while optical systems look for smoke plumes

## 2. PROBLEMS

J&P

Every year, there are an estimated 340,000 premature deaths from respiratory and cardiovascular issues attributed to wildfire smoke. The increasing frequency and severity of wildfires pose a growing threat to biodiversity globally. Individuals, companies and public authorities bear great economic costs due to fires.

## 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 characterized as the manner in which a fire reacts to the interaction of fuel, weather, and topography - the "fire behavior triangle." The four main parameters used to describe fire behavior include: rate of spread, fireline intensity, flame length, and flame height.

## 3. TRIGGERS

TR

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

Yor are in offline application manpower detection can be done.