# 1. CUSTOMER SEGMENT(S)



- People who are living nearby forests use this application to get an alert before massive forest fire.
- Alerts forest department.
- Timely information about the appearance of fire reduces the number of areas affected by this fire and thereby minimizes the costs of fire extinguishing and the damage caused in the woods.

### **6. CUSTOMER CONSTRAINTS**



- Should report the updates every minute
- Continuous monitoring
- Accurate and early prediction
- Should detect any suspicious events

#### 5. AVAILABLE SOLUTIONS



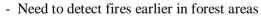
Detects fire but the model had less accuracy

Team ID: PNT2022TMID38850

- Takes more time to report
- False predictions
- Camera Based Techniques.
- Multi-modal/Multi-sensor fire analysis.
- Pyro-electric Infrared Sensors for Flame Detection.

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





- Setup UAV everywhere to take pictures and videos
- Video processing

Focus on J&P, tap into BE, understand RC

- Build CNN model to detect fire from images obtained

### 9. PROBLEM ROOT CAUSE



- High atmospheric temperatures and dryness (low humidity) offer favorable circumstance for a fire to start.
- Manmade causes: Fire is caused when a source of fire like naked flame, cigarette, electric spark or any source of ignition comes into contact with inflammable material.

### 7. BEHAVIOUR



- Earth-observing satellites detect wildfires in wilderness areas. Their cameras and remote sensors are used to estimate the fire's evolution and provide situational awareness that saves lives.
- Updates given on time

# 3. TRIGGERS

Identify strong

 $\mathbf{T}\mathbf{R}$ 

Suspecting fires in forest areas before its massive spread.

# 4. EMOTIONS: BEFORE / AFTER



Before: Fear of losing, Anxious, Confused, Worried After: No need to worry about damage and cost, more safety

# 10. YOUR SOLUTION

To create a solution to monitor the forest areas continuously using cameras and UAV and detect the spread of forest fires using the information collected.

- (a) volunteer reporting-public reporting of fires, public aircraft, and ground based field staff,
- (b) operational detection systems: fire towers, aerial patrols, electronic lightning detectors, and automatic detection systems.

# 8. CHANNELS of BEHAVIOUR



8.1 ONLINE

People and forest department make use of the application to get alerts when fire is detected. Notifications are sent to all nearby victims.

### 8.2 OFFLINE

Reduces the number of areas affected by this fire. Reduces the costs of extinguishing fire.