Project Design Phase-I

Solution Fit

Project Name: Emerging methods for Early Detection of Forest Fire
Team Id: PNT2022TMID50335

1.Customer Segment(S) CS	**8.Customer Constraints CC**	**5.Available Solutions AS**
• Techniques based on convolution networks are the most used and have proven to be efficient solving such as problem. • However , they remain limited in modeling the long range relationship between objects in the image, due to the intrinsic locality of convolution operators	• Climate changes and the greenhouse effect are the some of the consequences of such destruction. • Interestingly, a higher percentage of forest fires occur due to human activities	• From previous studies the available prototype model uses common sensors, like Flame sensor , temperature senor, gas sensors for fire detection those sensors are attached to trees animals and birds in the forest to detect the forest fire . • Pros of existing solutions: The forest fire area can be detected and can be located precisely .

2.Jobs to be done / Problems J&P	**9.Problem Root Cause RC**	**7.Behaviour**
• The process provide broad and detailed customic insights that are superior to typical market research methods and critical to developing better solutions for customers . • It helps us understand a new space and identity the understand needs so we could enter a new market in a differentiated manner.	• The real reason behind this problem a camp fire left unattended , the burning of debris , equipment uses and malfunctions, negligently discarded cigarettes and intentional acts of arson. • Lightning is one of the two natural causes of fires . • Because of this many lives have been taken hence early detection of forest fire is important.	• The fire reacts to the interaction of fuel, weather, and topography – "Fire behavior triangle." The four parameters used to describe fire behavior rate of spread firelline intensity , flame length and flame height.

3.Triggers	**10. Our Solution** **SL**	**8.Channnels Of Behaviour** **CH**
• Natural Causes • Human Activity	• To minimize these losses early detection of forest fire and an autonomous response are important and helpful to disaster management systems. • Early detection of forest framework using CNN for CCTV camera , which can be detect fire in varying indoor and oudoor environments.	○ Helps to notify the data processing information. ○ Remote sensing is used to detect forest fires.

4.Emotions Before / After

EM

- Before : Loss of valuable timber resources.
- After : Allowing seedlings released by the fire to sprout and grow.