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

**Project Title:** Emerging method for early detection of forest fire **Team ID:** PNT2022TMID45424

* To predict, early detect, and contain wildfires erupting in their territories.
* The system is designed for monitor the causing factors of forest fires such as temperature, humidity , air pressure level,oxygen and Carbon dioxide on the

surface of air.

**AS**

**5. AVAILABLE SOLUTIONS**

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

**Explore AS, differentiate**

**Define CS, fit into CC**

* Indicating the temperature level.
* Alert through alarm system.
* No need of manual monitoring.
* No loss of life and resources

Government and corpates managing the public

**BE**

**7. BEHAVIOUR**

**RC**

**9. PROBLEM ROOT CAUSE**

the need to do this job?

i.e. customers have to do it because of the change in regulations.

**J&P**

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

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

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

* Providing enough awareness to people.
* Making the public more awared.
* Making the public more awared.
* The sensors are used to detect the forest fire
* To preventing a potentially deadly disaster
* To help avoid home destruction, loss of wildlife habitat, release carbon dioxide into the atmosphere and pollute the air with emissions harmful to human health.
* Due to smoke/ flame

/spark.

* Change in temperature.
* Irregular maintainance.
* Intentional acts of arson.
* Spark due to lightning.
* Any electrical shortage that causes fire.

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| **Identify**  **strong TR & EM** | **3. TRIGGERS TR**   * To limit the emission of toxic products created by combustion, as well as global-warming gases produced by the fire itself. | **10. YOUR SOLUTION SL**    To implement this technology by Unmanned Aerial Vehicles(UAV) and the use computer vision methods for recognition and detection of smoke or fire, based on the still images or the video input from the drone cameras which early detects the forest fire and saves the life of animals and human health. | **8.CHANNELS of BEHAVIOUR CH**  **ONLINE:**  This system is based on the artificial intelligence and real time tecniques .This system detects and sense the different or other signal and transfer to the system.  **OFFLINE:**  We use the fire fighters for stop the forest fire otherwise the people inform to the police or fire fighter for stop the fire. |  |
| **4. EMOTIONS: BEFORE / AFTER EM**  **BEFORE:**   * Manual maintainance * Loss of resources * Defforestation * Air pollution   **AFTER:**   * Detect fire early as possible * Air will not be polluted * Loss of lifes are reduced * Reduced the dead of animal’s life. |