**Project Title:** Hazardous area monitoring of industrial plants powered by IoT **Project Design Phase-I** - **Solution Fit Team ID:** PNT2022TMID51106

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**AS**

**5. AVAILABLE SOLUTIONS**

* Smart area monitoring sensors and wifi connectivity of sensors.
* Smoke and gas sensors can be connected to the system to safeguard the safety of workers.
* **Pros**: Successful monitoring.
* **Cons**: Network coverage for sensors for sensors cannot be reached.
* Remote areas with poor internet connection
* A single plant trip or failure can lead to significant production losses.
* Smart beacon coverage area.
* Network access for beacon.

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

1. **CUSTOMER SEGMENT(S)**

* The workers who work in Hazardous area in the industrial power plant.

**Explore AS, differentia**

**Define CS, fit into CC**

**BE**

**7. BEHAVIOUR**

* The employees have wearables where they can see the required details and act safely according to it.

**RC**

**9. PROBLEM ROOT CAUSE**

* Faulty production results in damage to devices.
* Lack of knowledge to workers.
* Leakage of harmful substances.

**J&P**

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

* To check and alert the humidity, temperature, infra-red radiation and air quality.

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

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Identify strong TR & EM** | **3. TRIGGERS TR**   * Obtaining information on the device from official websites and newspapers advertisments. * Successful execution will make other industry to implement this technique. | **10. YOUR SOLUTION**  **SL**   * Suitable sensors are connected to the wearables to the beacons. The updates are sent through cloud. From cloud the readings are accessed and the updates are displayed in mobile application and the employees are warned through SMS service. * The areas will be monitored continuously and warnings will be alarmed during time of danger. | **8.CHANNELS of BEHAVIOUR CH**   * **ONLINE:** We shall monitor the hazardous areas through web applications continuously. * **OFFLINE:** Make workers aware of the prevailing situation by warning through wearables. | **Identify strong TR & EM/** |
| **4. EMOTIONS: BEFORE / AFTER EM**   * **BEFORE:** When there are any issues with the workers security,they cannot work at ease. * **AFTER:** Workers feel liberated and do their tasks without any concern about their safety. |