

Ideation Phase
Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID28572
Project Name	Hazardous Area Monitoring for Industrial Plant Powered By IoT
Maximum Marks	2 Marks

PROBLEM STATEMENT

Hazardous Area Monitoring for Industrial Plants Powered by IoT

To fulfil the modern-day human lifestyle and requirements many industrial plants play a major role. But with the exponential increase in growth of the industrial plants the safety and security of Workers and Engineers exponentially go down. This is due to a lack of Knowledge of hazards in the industrial plants among the employees. To overcome this bad situation industrial plants, need to develop some industrial safety regulations and maintain them. The industrial plants also need to be developed some infrastructure to monitor the hazards that happen in the industrial plants. And it helps the Engineers and plant managers to take the needful measures to avoid a bad situation. In case of any malfunction in plants, it will also affect the environment and livelihood around the plants.

Problem statements:

1. A Plant Manager needs to be informed of possible hazardous areas because they could pose a risk to the lives of the workers in the facility.
2. A technician needs to be informed whenever he is entering a hazardous area because it can lead to dangerous health complications to his/her or may cause disaster.
3. The Safety Inspector needs to easily examine whether the operations of the plant are hazardous or not. Because he needs to provide accurate reports to ensure safety.

To avoid the above-discussed problem statements:

- We can monitor the Temperature, and Gaseous parameters of the areas in the industrial plants. But the industrial plants.
- By installing smart beacon devices which will be broadcasting the parameter of that particular area.
- Every technician and worker working in those areas will be given smart wearable devices which will be acting as beacon scanners. Engineers and workers can view the various parameter of the area on their wearable devices.
- The safety Engineer and plant manager will be alerted through mobile notification.