**Project Design Phase-I**

**Solution Architecture**

|  |  |
| --- | --- |
| Date | 01 October 2022 |
| Team ID | Hazardous area Monitoring For industrial plant powered by IOT |
| Project Name | PNT2022TMID35923 |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Goals are to:

* In this project, we create an IoT-based hazards monitoring system specifically suited to the requirements of mining, refining, and manufacturing industries.
* To monitor the condition, we can integrate the smart device in the area which are needed to be monitored every device will be acting as a beacon and it is connected to temperature sensors, gas sensors etc**.**
* The system actively records, processes and analyzes the temperature of the surroundings and gas level which is a prime safety parameter in areas where molten metal is processed, manufacturing is done or welds are made, chemical are processed, heavy materials are shifted. If a parameter is violated, the system sends an immediate notification to a set of a preset list of users on their smartphone and continues logging and monitoring data for further analysis to suggest improvements in the safety regulation of the industry.
* Broadcast the sensor data along with the location of that particular area through beacons. The persons who generally monitor these places will be given a wrist band and cell phones by alerting the call and SMS.
* Whenever the person enters the desired area then he can view the required parameters and can be alerted, these are sent to the cloud storage.

**Solution Architecture**