

Project Design Phase-I
Solution Architecture

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| Date | 10 October 2022 |
| Team ID | Hazardous area Monitoring For industrial plant powered by IOT |
| Project Name | PNT2022TMID19670 |
| 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. Its goals are to:

- 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 and gas sensors.
- In this project, we create an IoT-based hazards monitoring system specifically suited to the requirements of mining, refining, manufacturing and chemical industries.
- The system actively records, processes and analyzes the temperature of the surroundings, which is a prime safety parameter in areas where molten metal is processed, manufacturing is done or welds are made. 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 temperature and gas leakage 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.

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