

PROJECT DESIGN PHASE – I

SOLUTION ARCHITECTURE

DATE	31 October 2022
TEAM ID	PNT2022TMID42645
PROJECT TITLE	HAZARDOUS AREA MONITORING IN INDUSTRIAL PLANTS
MAXIMUM MARKS	4

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:

- In industries parameters (**temperature and combustible gases**) must be monitored continuously
- To follow the working of machine and units these parameters must be stored in a cloud using IOT (**Industry 4.0**).
- During deviation from regular working an **alert message** must be sent to **control room and workers** present the unit
- The product must be **very efficient**.
- The device will be compact, and microcontroller used is an **Arduino UNO rev3** or **Pyboard** for utilizing advanced technology.
- Uses **Infrared temperature sensor** for monitoring temperature.
- We product will include a **Miniaturized MOS sensor** for monitoring the **fuel gas level** inside the power plant

Technical Architecture:



