

**HAZARDOUS AREA MONITORING FOR
INDUSTRIAL PLANTS POWERED BY IOT**

SUBMITTED BY

SAPNA U K	(113219041099)
GOLI HEMASWI	(113219041031)
KAVITHA S	(113219041049)
PRIYADARSHINI S	(113219041090)

**BACHELOR OF ENGINEERING IN ELECTRONICS
AND COMMUNICATION ENGINEERING**

Project Design Phase-I Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID23518
Project Name	Project - Hazardous area monitoring for industrial plants powered by IOT.
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Hazardous area monitoring for industrial plants powered by IOT.
2.	Idea / Solution description	For an industry the hazards are due to the high temperatures so here we are monitoring temperature using sensors like thermocouples and broadcasting the temperature of that particular area by integrating the area with beacon devices. At the same time the workers are given a wearable devices like smart watches through which the workers can view the temperature. When the temperature goes high the workers will receive an alert through a buzzer and the admins will receive an alert via SMS through API.
3.	Novelty / Uniqueness	The approach of our system includes : <ul style="list-style-type: none"> • Temperature parameters measurement • Smart beacon devices to display temperature • Smart wearable device • GSM module to alert the people • GPS to get the exact location of worker
4.	Social Impact / Customer Satisfaction	In our project, the Internet of Things (IOT) is used to collect data and communicate through the internet. We hope that our project will be beneficial enough to be implemented in industries across India, saving lives and property from accidents and risks that are often overlooked by industry personnel and users.
5.	Business Model (Revenue Model)	Today there is a great challenge in the development of industrial hazardous safety monitoring for the application of gas leaks, fire, smoke, radiation etc.

		<p>In all related fields of investigation, a key matter is the need flexible and practical virtual instruments, a way to easily expose the multi-sensors to the hazardous levels in risk concentration. The implementation of wireless sensor network provides an alternative solution by deploying a larger number of disposable sensor nodes. The sensor data consists of parameters like temperature and it's dynamic variations.</p> <p>This software platform is in the terms of virtual instruments developed under Lab VIEW programming environment and integrated with computer controlled system.</p>
6.	Scalability of the Solution	<p>Including sensors to monitor pressure and gas leakage provides more safety to work.</p>