PROJECT DESIGN PHASE-1

PROPOSED SOLUTION TEMPLATES

Date	10 October 2022
Team ID	PNT2022TMID14654
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT
Maximum Marks	4 Marks

Proposed Solution Template:

S.No	Parameter	Description
1	Problem Statement (Problem to be solved)	To monitor and alert the workers working in the industrial area about the risk of toxic and hazardous gas present thus ensuring their safety.
2	Idea / Solution description	- Providing every worker with a wearable intelligent beacon device capable of collecting and displaying the surrounding data. - An alert message is also sent to the worker's mobile in case of high temperature or the presence of toxic gases as SMS through an API. - Providing safety to the workers.
3	Novelty / Uniqueness	- Easier to detect the temperature or the presence of toxic gases without manual labor. - Provides safety for the workers. - The wearable device displays the current temperature like a Real-time system. - Alerts are provided to both wearable devices and also mobile applications as SMS.

4	Social Impact / Customer Satisfaction	- Simple and Reliable - User-Friendly - Comfortable - Ensures safety of the workers - Additional support and functions can be added in the future. - Necessary updates are given for better functioning of the device.
5	Business Model (Revenue Model)	- The wearable device can be sold by the industry to workers for profit. - The data stored in the cloud can be sold to big MNCs like Google to seek profit. -Pop-up advertisements can be hosted in mobile applications to gain extra revenue. -After the end of the life of the wearable device,it can be scraped for additional revenue.
6	Scalability of the Solution	- Most of the workers can be supplied with a wearable device. - Multiple users can receive the alert message simultaneously in case of emergency. -The alert message is sent to both the wearable device and mobile phone to alert all the workers in that particular area -With the use of SMS,all the workers are alerted in no time in case of an emergency. -It ensures the safety of each and every worker with additional revenue gain in hand. -The sensors in beacon devices are designed in such a way as to cover a large part of the area for sensing.