

HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANT POWERED BY IOT

OBJECTIVE

- Gain knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
- Gain knowledge on Cloudant DB
- Creating a Web Application through which the user interacts with the device.

LITERATURE SURVEY

1. An Integrated System for Smart Industrial Monitoring System in the Context of Hazards Based on the Internet of Things

- Because of accidents, inadequacies, or plain negligence on the part of industrial authorities, there have been countless fatalities, severe injuries, and catastrophic damages that have disrupted the lives of the victims and future generations. This task suggests a cutting-edge checking system reliant on the Internet of Things to prevent any potential failure of this magnitude (IoT). This construction project creates a mechanical observation framework that recognizes anomalous concentrations of gases including carbon monoxide, LPG, butane, and hydrogen that could set off an explosion.
- **ADVANTAGE:** Integration of data from multiple sensors ensures the industry's safety. The system operates reliably and steadily. It is the best and most responsible way to keep an eye on hardware security.
- **DISADVANTAGE:** This will directly send a SMS to the industrial authority. This will be little delay in transferring information to workers.
- **SENSOR USED:** This project uses Arduino Mega 2560 as the microcontroller which is interfaced with a variety of sensors.

2.Industrial Temperature Monitoring and Control System through Ethernet LAN

- Here, a temperature sensor measures the temperature and generates an analog signal in response, which the main microcontroller then processes. The information regarding temperature is shared through ethernet cable to the device.
- **ADVANTAGE:** This will send the Alert message to the device where the Ethernet cable is connected and after that the person should be aware of it.
- **DISADVANTAGE:** Because the wired method is less effective in industrial settings, we were inspired to put a wireless system in place. Since wireless system is portable and easy to monitor wherever they are.

3.Remote Temperature Monitoring Using LM35 sensor and Intimate Android user via C2DM Service

- This article introduces a WSN prototype for android-based remote room temperature monitoring that can be used for fire safety operations. For registered users, the proposed system offers an Android user interface through which they may view the current temperature and receive a flash or buzzer message in the event of a fire.
- **ADVANTAGE:** This will give a alert message instantly after it detect the temperature for your android interface.
- **DISADVANTAGE:** This can be only use by android user since this is an Android user interface. If it is a Web application as well we can use it in desktop too.
- **SENSOR USED:** LM35 Sensor and C2DM service

4.Real time Monitoring of CO2 Emissions in Vehicles Using Cognitive IOT:

- Using Cognitive IoT, this attempts to leverage real-time monitoring and management of CO2 emissions created by automobiles and industries to lessen the global warming effect.
- **ADVANTAGE:** This will form a data of gases that are emitting and their amount of emission
- **DISADVANTAGE:** This will only measure the gases not the temperature
- **TOOLS:** Cognitive IOT

REFERENCE

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4. Prachi Shahane, Preethi, SIES GST, Mumbai, Maharastra, India "Real time Monitoring of CO2 Emissions in Vehicles Using Cognitive IOT" (2013) <https://www.ijsr.net/archive/v5i3NOV161965.pdf>