

SL.NO	TITLE	AUTHORS	CONTENT COVERED
1.	A Hazardous Area Personal Monitoring System for Operators in Gas Depots and Storage Tanks	Elia Landi, Lorenzo Parri, Ada Fort, Marco Mugnaini, Valerio Vignoli, Dinesh Tamang, Marco Tani	<ul style="list-style-type: none"> • This paper describes a smart monitoring system for the detection of poisonous gas residues, reduced oxygen concentrations, and flammable gas residues. • The suggested method intends to increase worker safety by decreasing the risk of fires and explosions when they are doing maintenance on or inspecting gas storage facilities. • The monitoring system is built on small battery-operated wearable sensor nodes that have sensors for oxygen, hazardous gases, and flammable LPG compounds. • By including an intrusion detection system, which forbids unauthorized entry to safety-critical locations to prevent mishaps, the proposed system can help boost plant safety. • The sensor nodes use a BLE to identify users and grant access to restricted areas while transmitting data to a remote server over a LoRa low power radio channel.
2.	Embedded IoT-based Monitoring Utility for Safety Management and Access Control	Ugwechi Wejie-Okachi , Tamuno-Omie Joyce Alalibo and Emmanuel Chinweikpe Obuah	<ul style="list-style-type: none"> • The monitoring tool determines an employee's blood alcohol content before they enter the building. • Additionally, it continuously scans the area for Liquefied Petroleum Gas (LPG) leaks and potential fire outbreaks before sending real-time alert/alarm notifications to the industry's website, the fire office, security units, and other authorised employees via a dedicated GSM line. • Alcohol, LPG, and fire sensors in the system's sensor modules measure the parameters and provide the pertinent data to the microcontrollers for processing. • By delivering the processed data to the ThingSpeak platform, SMS, and website, where it can be accessed by authorised personnel, the NodeMCU initiates the IoT-based alert mode. In addition to issuing the alarm, the system turns on the sprinklers in the fire suppression system.

3.	Monitoring of Hazardous Gases in Process Industries Through Internet	Ragavi P, Dr. K.R. Valluvan	<ul style="list-style-type: none"> • The first step toward safety is monitoring. There are numerous industries that use hazardous chemical gases in daily life, and their employees are frequently exposed to these gases. • Such gases have an unanticipated and a significant influence on properties and human life. To keep these things from happening, an automated system for detecting and alerting toxic gases is built. • The suggested method consists of a monitoring and notification system powered by the Internet of Things (IoT). Gases like hydrogen sulphide, which is poisonous and combustible, are present in this.
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