LITERATURE SURVEY

PROJECT TITLE: HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANT POWERED BY IOT

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LITERATURE 1:

Hazard Monitoring System in Industry Using IOT

ABSTRACT:

In spite of security and automation in plants, industrial environments quiet critical for machines and humans. Industrial surroundings are crucial for both machines and people, despite security and automation in facilities. With a safety in industrial condition, this paper is contracted. A method has been created to identify risky circumstances, such as breakdown, which is the primary cause of leakage current in substations, and assist in preventing them. In order to validate the method employed in this method, safety scenes were also constructed. This method is intended to safeguard a person. This method reveals the negative effects of thermally hazardous environments and people. Automation systems that monitor the system and flag any errors reduce the amount of work that must be done by humans. The GSM concept is employed in this study. It consists of a network of physical items or things with electronics, software, sensors, Here automation system will be used in industry for monitoring various parameters such as temperature, humidity, gas and fire.

LITERATURE 2:

A Study On Computer Based Monitoring SystemFor Hazardous Area Safety Measurement UsingVirtual Instrumentation

ABSTRACT:

Today there is a great challenge in the development of industrial hazardous safety monitoring for the application of gas leaks, fire, smoke, radiation etc. 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 may consist of industrial environmental parameters like critical temperature, gas leakage, radiation, fire, smoke and the dynamic variations of these physical quantities. This software platform is in the terms of virtual instruments developed under Lab VIEW programming environment and integrated with computer controlled system.

LITERATURE 3:

An overview of industrial alarm systems: Main causes for alarm overloading, research status, and open problems

ABSTRACT:

Alarm systems are crucial to the secure and effective running of contemporary industrial facilities. However, the majority of industrial

alarm systems currently in use perform poorly, most notably having an excessive number of alarms that cannot be managed by operators in control rooms. Such alarm overloading is particularly damaging to the crucial role served by alarm systems. An overview of industrial alarm systems is given in this document. Alarm overloading is attributed to four primary causes: chattering alarms brought on by noise and disturbance; poorly configured alarm variables; isolation of the alarm design from related variables; and abnormality propagation due to physical connections. As supplementary evidence, industrial examples from a sizable thermal power plant are given. By concentrating on existing research, the state of industrial alarm system research is summarized.However, industrial alarm systems are generally suffering from alarm overloading. This paper provides an overview of industrial alarm systems, by proposing main causes for alarm overloading, summarizing current research status and formulating open problems. In presenting this overview, we hope to attract direct attentions from more researchers and engineers into the study of industrial alarm systems.

LITERATURE 4:

Sleep scheduling in industrial wireless sensor networks for toxic gas monitoring

ABSTRACT:

Early detection and resolution of issues leads to time and money savings as well as increased business productivity. Systems based on WSNs are not uniform or incompatible. Between regions and processes, there is a lack of coordinated communication and transparency. SCADA systems, on the other hand, are pricy, rigid, and not scalable, and they deliver data slowly. The oil and gas sectors are suggested a revolutionary

IoT-based architecture in this study to make data collection from connected objects as easy, secure, robust, reliable, and rapid as possible. The application of this design to any of the three categories of operations—upstream, midstream, and downstream—is also suggested. A variety of Internet of Things (IoT)-based smart objects (devices) and cloud-based technologies can be used to do this. Our proposed IoT architecture supports the functional and business requirements of upstream, midstream and downstream oil and gas value chain of geologists, drilling contractors, operators, and other oil field services.

LITERATURE 5:

Wireless sensor networks for industrial environments

ABSTRACT:

A difficult research field is the deployment of a large population of sensors for complex sensing and control in industrial and commercial infrastructures. Today, there is a lot of interest in the usage of wireless sensor networks (WSN) for industrial applications. Due to the unpredictability of changes in temperature, pressure, humidity, the presence of large equipment, etc., the industrial environment for wireless sensor networks is harsher than that of office networks. We offer an overview of wireless sensor networks for industrial applications in this study.

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