

INDUSTRY PARAMETERS MONITORING AND CONTROLLING SYSTEM BASED ON EMBEDDED WEB SERVER

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Abstract

The Internet of Things (IoT) is a technology that is quickly advancing. The Internet of Things (IoT) is a network of physical objects or things that are equipped with electronics, software, sensors, and network connectivity, allowing them to collect and exchange data. Using wireless devices, Android, and sensors, we are developing a system that will automatically analyse industrial applications and produce a means to build powerful industrial systems and apps. Sensor data acquisition for industrial Wireless Sensor Networks (WSN) in an Internet of Things (IoT) environment requires a sensor interface device. The goal is to provide a reconfigurable sensible device interface for industrial WSNs in an IoT environment, with the ESP 8266 12E as the core controller. As a result, it will scan information on numerous completely distinct devices in simultaneously and in real time at a fast pace. This style uses the Intelligent Device Interface specification. The device features the most up-to-date ARM programmable technology as well as an intelligent device standard. It can quickly determine the temperature by detecting the values of sensors. Voltage, current status of real-time measurement, and humidity and gas presence in the industrial area. It also has irregularities that it uses to manage the power. In order to avoid a critical crisis and properly implement preventive actions. It is the most efficient and cost-effective method of monitoring equipment safety. As a result, it has excellent social prospects.

KEYWORDS: Wireless Sensor Networks (WSN), Internet of Things (IoT), Sensors, Sensor data acquisition, ESP 8266 12E Control

1. Introduction:

To meet industrial objectives ,industry Standards must be adhered to, which are concerned with the proper functioning and execution of operations in their respective domains [1]. Global and domestic competitiveness are aided by industry standards. It's a critical instrument for setting and achieving industry objectives. Today's producers must accomplish more with less in order to meet the stated objectives. Reduced overheads and improved quality throughput. Proactively detecting and reacting to problems before they worsen is critical. Learn from the process and use what you've learned to your next project. These are the key parameters of a successful industry, and they may be attainable if machine and manufacturer communication is accurate. With the support of a real-time monitoring system, this type of accurate communication is achievable. Users can use this system to continuously monitor the process and gather real-time information about the equipment's reliability, accessibility, and maintainability. Furthermore, not only is this data collected, but it is also shared swiftly and precisely in order to meet the high production objective. In comparison to Supervisory Control and Data Acquisition, this monitoring facility provides a solution that is not only powerful but also cost-effective. is an essential consideration for the industry. In this study, a real-time data monitoring system is investigated



DOGO RANGSANG
Research Journal
দগুগা রংসং
গবেষণা পত্রিকা

ISSN : 2347-71

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

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Published in

Dogo Rangsang Research Journal : ISSN 2347-7180 with IF=5.127

Vol. 13, Issue. 2, No. 02, February : 2023

UGC Care Approved, Group I, Peer Reviewed, Bilingual and Referred Journal



UGC

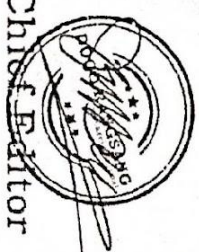
University Grants Commission

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Science and Engineering (WISE)
Avasiddu, Paksasaraopalem

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Chief Editor



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