IBM-PROJECT

Hazardous Area Monitoring for Industrial Plant powered by IoT

LITERATURE SURVEY:

S.NO	TITLE OF THE PAPER	AUTHORS AND YEAR	METHODOLOGY USED	LIMITATION OF THE SYSTEM
1.	**A Serverless IoT Architecture for Smart Waste Management Systems**	Eyhab Al-Masri(2018) Ibrahim Diabate(2018) Richa Jain(2018) Ming Hoi Lam Lam(2018) Swetha Reddy Nathala(2018)	A Serverless Internet of Things (IoT) architecture for hazardous waste management systems. It is then feasible to determine real-time source material prior to the hazardous waste collection. In this way, Hazardous Waste Management Systems can put one's finger on sources of violations and reform this by pilot awareness to the communal.	Regardless of the minor improvements, major social change can only be achieved by the widespread adoption of IoT pushed by public entities.
2.	**Smart System for Hazardous Gases Detection and Alert System using Internet of Things**	R Senthil Ganesh(2021) M Mahaboob (2021) Janarthanan AN(2021) Lakshman C (2021) Poonthamilan S(2021) K Kavin Kumar(2021)	It provides real-time monitoring information and make them available online for further favorable access with a gas detector that may heed numerous dangerous gases.	It requires air or oxygen to work. It can be poisoned by lead, chlorine and silicon. It is difficult to know failure modes unless very advanced methods of monitoring are used. It is difficult to handle while fabrication due to smaller size.

3.	**Automated Waste Segregator**	Amrutha Chandramohan(2014) Joyal Mendonca (2014) Nikhil Ravi Shankar(2014) Nikhil U Baheti(2014) Nitin Kumar Krishnan (2014) M. S. Suma (2014)	Automated Waste Segregator (AWS) which is a cost eficient, easy to deploy solution for a partition system for household manipulation, so that it can be dipatched directly for processing. It is sketched to sort the refuse into metallic, wet and dry waste. The AWS employs parallel bass impedance sensing gadget to identify metallic items, and capacitive sensors to distinguish between wet and dry waste.	Process is not always cost efficient. Needs more Global Buy-In Practices are not done uniformly. The resultant product has a short span of life.
4.	**Target Detection And Mapping Of Aquatic Hazardous Waste Sites In Massachusetts Bay Utilizing Sidescan Sonar**	D.J. Keith (1992) V. Capone (1992) G.S.Cook (1992) D.A. Carey (1992) D.N. Wiley (1992) J.P. Fish (1992)	The oceans have been used for ditching variety of commercial and hazardous wastes. In Massachusetts Bay, several domain have been used for permitted as well as non-permitted disposal of waste containers with environmentally subtle mateials.	Security and Privacy Issues. Internet and Power connectivity dependence. Time Consuming and Expensive for implementation

5.	**Automatic inspection of hazardous materials by mobile robot**	J.C. Wilson (1995) P.A. Berardo (1995)	The operational notion is an autonomous mobile tenets with a camera scaled on a ritual designed positioning mechanism. The ambulant robot will automatically navigate from its charging station to each of the aisles in the warehouse, locating the camera in front of each drum in an aisle. An figure of the drum taken at a premature date will be compared directly and automatically with a new image of the drum. Any changes that occur may stipulate deterioration, and these changes will be analyzed to determine if the human inspector should examine the inspection images to interpret the changes.	Increased Unemployment Too Much Dependency on Technology Lose life control

S NO	TITLE	Authors	Abstract	Drawbacks
6	IoT-Based Data Logger for Weather Monitoring Using Arduino-Based Wireless Sensor Networks with Remote Graphical Application and Alerts	Jamal Mabrouki , Mourade Azrour, Driss Dhiba, Yousef Farhaoui, and Souad El Hajjaji	For years, monitoring system plays a major noteworthy role our life.So, in this paper, we suggest an automatic weather surveil system that allows face dynamic and real-time climate data of a given area. The proposed set-up is based on the Iot Technology and embedded system. The structure also includes electronic gadgets, sensors, and wireless technology. The major intention of this system is sensing the weather parameters, like antithesis, humidity, and existence of some gases, based on the sensors. The captured values can then be sent to remote applications or databases.The n , the stored data can be visualized in graphics and tables form.	No information about where we can implement this, just the monitoring thing is explained and done.
7	Design and Validation of a Multifunctional Android-Based Smart Home Control and Monitoring System	LUN-DE LIAO (Member, IEEE), YUHLING WANG YUNG-CHUNG TSAO, I-JAN WANG, DE-FU JHANG, TSUNG-SHENG CHU, CHIA-HUI TSAO, CHIH-NING TSAI, SHENG-	Buyers often ought to monitor the environment variables of their house, even when they are outdoor. So, we present a multifunctional, low-cost, and flexible IoT system for smart home oversee and environmental track. This product employs an embedded micro server based on an Arduino microcontroller with wireless Network connectivity that permits remote device control. To undertake access regardless of Internet availability, the system can also be controlled via standalone guided operation using a touch display. The proposed system transmits data to a cloud platform and can receive commands from the server, allowing many devices to be automatically controlled.	Bounded only to mobile application and there is no web application or SMS for fast notification as we may not have our Internet connections on always.

8	Micraspis: A Computer-Aided Proposal Toward Programming and Architecting Smart IoT Wearables	LONG-PHUOC TÔN, LAM-SON LÊ, (Member, IEEE), AND MINH-SON NGUYEN	A gear is a lightweight body-worn gadget that relies on data-driven divulgence to have people connected knowingly, for instance, for fire-fighting, prompting fast-food clients, and medical treatment. With the rise of garment computing in the aeon of IoT-driven smart utilization, programmers now await the hour to market for these utensil to be decreased. While brace for IoT line-up in general has gathered haulage, gizmo proposals that automate the development of smart solutions based on the Internet of Wearable Things, though of paramount significance, still stay on thesidelines. We bring forward a code age tool called Micraspis that permits a wearable to be set-out both practically and architecturally – as if they are two sides of the same coin. The tool has an fundamental model-to-code modification mechanism to generate source code that is executable on a specific IoT programming platform such as Arduino.	Sole usage of Wearable device only. This can cause limitations as we may not be able to monitor through other means.

9	A Privacy-Preserving Iot-Based Fire Detector	ABDULLAH H. ALTOWAIJRI, MOHAMMED S. ALFAIFI, TARIQ A. ALSHAWI, (Member, IEEE), AHMED B. IBRAHIM, AND SALEH A. ALSHEBEILI	Fire perception has been an point of interest to researchers due to its significant damage to lives and things within a very little while. One of the current solutions developed to detect fire is to use Internet of Things (IoT) gadgets equipped with camcorder for surveillance. The captured tapes ofsurroundings may be distilled by the IoT devices themselves or at the cloud. The latter case is required if the spotting algorithm is computationally challenging. A fire detection system that safeguards the privacy of surroundings, while prolonging a high level of accuracy for fire detection is introduced. The proposed machine uses the cloud for fire detection; which is achieved by sending to the cloud the extracted video captured by the IoT device, instead of sending the actual footage. Binary video headlines and Convolutional Neural Network have been used to develop the fire detection algorithm. The video descriptors are used to draw out features, while CNN is used for grouping. Results indicate that the performance of proposed fire spotting algorithm can achieve 97.5% classification accuracy, that outperforms the state-of-the art design which make straight use of underdone videos. It is also demonstrated that the proposed video descriptors can be fulfilled for real-time processing using an IoT gadget, Raspberry Pi 4 platform, with an average processing speed of 100ms per frame, which satisfies the needs.	No online web app or mobile applications where we can see the current situation of the monitored environment.