LITERATURE SURVEY

Research in [1] proposed an **IoT-based smart agriculture monitoring system.** Their works focused on devices and tools to manage and monitor temperature, humidity, soil moisture, atmospheric moisture, and intruders by using a wireless sensor network (WSN) system. The monitoring system is performed by two methods which are via hardware by using the LCD and android application. Any parameters exceed the threshold value, an alert system will send a message to the user via GSM.

According to [2], Hazardous area safety monitoring system based on wireless sensor network can effectively and accurately reflect dynamic situation monitored with help of computer based virtual instrumentation technique. Agent based wireless local positioning system with Zigbee technology is implemented. A cost effective Zigbee based wireless safety monitoring system with early-warning intelligence on temperature, radiation, flammable and poisonous gas and fire and smoke in hazardous area. With virtual instrumentation software, the safety system is obtained.

Android user via C2DM Service [3] presents a WSN prototype for remote room temperature monitoring, which can be used for fire operations, via an android platform. The proposed system provides an Android user interface for registered user to access the current temperature and a flash/beep message in case of fire.

Authors in [4] use an embedded controlling device(Raspberry Pi), which gathers and processes the data generated by sensors like temperature sensors and gas detectors. A cloud platform is used to visualize and analyse the generated and also thereby enabling us to perform real time tracking and possibly implement a warning system, say notifications through the cloud or an audible alarm.

System. They introduces an Arduino module that operates with solar energy and using of battery charger circuit, it is operating night time also. This module is interfaced with different sensors. Data acquired from each sensors is collected in the Arduino module is displayed in (16x2 LCD) which is used as their output module. The in-built analog to digital (ADC) converter is used to measure the voltage and current. The water pump releases when there is fire. The voice module gives voice output of various requirements. The LED glows when there is some gas leak or some problem

According to the existing solutions, users have limited access to the monitoring system to monitor parameters of industrial hazardous area at any time and anywhere. Most monitoring systems only provide fault alarms without indicates the type of parameters including the value of the parameters.

REFERENCES

- [1] Dr. N. Suma, Sandra Rhea Samson, S. Saranya, G. Shanmugapriya and R. Subhashri, "IoT Based Smart Agriculture Monitoring System," International Journal on Recent and Innovation Trends in Computing and Communication, vol 5, issue 2, pp 177-181, Feb 2017.
- [2] Sureshkumar A, S Muruganand, S Siddharthy, Manikandan N. "A Study On Computer Based Monitoring System For Hazardous Area Safety Measurement Using Virtual Instrumentation." International Conference on Inter Disciplinary Research in Engineering and Technology (2015): 187-191. Print.
- [3] http://www.ijsmc.com/docs/papers/June2013/V216201313.pdf
- [4] https://www.slideshare.net/AyushChhangani/industrial-hazard-monitoring-using-iot
- [5] Prof. Nitin Ahire, Shreya Bandodkar, Kanchan Gupta, Yasar Farooqui "IOT Based Industrial Parameter Monitoring System" vol 9, issue 2, 2019.