**ABSTRACT**

The persons who generally monitor these places will be given a wearable device which will be acting as a beacon scanner. Whenever the person enters the desired area then he can view the required parameters and can be alerted, these are sent to cloud.

Industrial accidents are as old as industry itself and so are preventive measures. The Standards for Explosive Areas or Atmospheres have also has evolved diversely worldwide, based on the local needs of the industries for the overall safe operation of the plants. Explosion and a fire are two of the major constituents of these mishaps. Depending upon the environment, these can be termed 'Accidents' or fade away as simply the 'incidents' or 'Near Misses' in the safety officers' statistics. The first step to logically is to start defining and understanding some of the terms used in the whole scope of the loss prevention in accidents due to explosion and fire.

FIRE is a rapid oxidation-reduction reaction (combustion) which results in the production of heat and generally visible light.

EXPLOSION is a violent and sudden expansion of gases produced by rapid causation; that very strong force when shut in a Call to order early associated with a sharp noise and a supersonic shock wave.

**LITERATURE SURVEY**

**SMART INDUSTRIAL IOT MONITORING AND CONTROL SYSTEM BASED ON UAV AND CLOUD COMPUTING APPLIED TO A CONCRETE PLANT**

Unmanned aerial vehicles (UAVs) are now considered one of the best remote sensing techniques for gathering data over large areas. They are now being used in the industry sector as sensing tools for proactively solving or preventing many issues, besides quantifying production and helping to make decisions. UAVs are a highly consistent technological platform for efficient and cost-effective data collection and event monitoring. The industrial Internet of things (IoT) sends data from systems that monitor and control the physical world to data processing systems that cloud computing has shown to be important tools for meeting processing requirements. In fog computing, the IoT gateway links different objects to the internet. It can operate as a joint interface for different networks and support different communication protocols. A great deal of effort has been put into developing UAVs and multi-UAV systems. This paper introduces a smart IoT monitoring and control system based on an unmanned aerial vehicle that uses cloud computing services and exploits fog computing as the bridge between IoT layers. Its novelty lies in the fact that the UAV is automatically integrated into an industrial control system through an IoT gateway platform, while UAV photos are systematically and instantly computed and analyzed in the cloud. Visual supervision of the plant by drones and cloud services is integrated in real-time into the control loop of the industrial control system. As a proof of concept, the platform was used in a case study in an industrial concrete plant. The results obtained clearly illustrate the feasibility of the proposed platform in providing a reliable and efficient system for UAV remote control to improve product quality and reduce waste. For this, we studied the communication latency between the different IoT layers in different IoT gateways.

# IOT BASED INDUSTRIAL MONITORING SYSTEM

The Industrial Internet of things or IoT has gained recognition due to the advancement it has made in communication technology. Industrial IoT is an application of IoT that enables control of industries over the Internet using smart devices and sensors. The two main entity which ensures effectiveness in any field is monitoring and control. Keeping a view on this aspect, we have designed a low-cost, low-power Wi-Fi based industrial monitoring system that controls and monitors the remote manufacturing plants and industries using a web application. In this model an Arduino Mega which is the main micro-controller is connected with a Wi-Fi module for internet connectivity, a barometer sensor for temperature and pressure, a humidity sensor for sensing the humidity and a gas sensor which detects the smoke and harmful gases. These components are utilized to build a monitoring system. Apart from these components several other sensors are used to keep a check on the temperature, gas leakage, pressure, humidity, etc. in the work environment to ensure the workers safety. In case of any incident this monitoring system warns the workers by an alarm and sends information to the registered user via Blynk App. The chief purpose of this research is to sum up the significant role of IoT in monitoring industries.

**IOT BASED INDUSTRIAL PARAMETERS MONITORING AND CONTROLLING SYSTEMS**

Safety is exceptionally principal in any industry, particularly with manufacturing, producing businesses and numerous others. Therefore, we mean to help these issues in businesses by fostering a safety boundary monitoring and controlling system, also, making it more proficient and easier to understand by consideration of IoT. That's what we trust: a system ought to be all around automated with the goal that another client or another worker who has no related knowledge in controlling a unit ought to have the option to get familiar very without any problem. With the assistance of IoT, administrators will come to know the live status of a unit on when a boundary monitoring and controlling system is introduced, it very well may be finished by means of sends, or on the other hand on the off chance that an individual is available there they can notice themselves. For instance, we can draw temperature to a specific line and assuming temperature surpasses past the set limit, the fans or other cooling system will begin consequently. This system will likewise have gas sensors, flame sensors as well as radiation sensors. We are utilizing Arduino UNO AT mega 328 as a controller for this system. Finally, the administrator will have records or logs of the boundary’s variance also, different exercises at a specific time so it will be prepared for reference in future Also, this will assist the administrator with going to security lengths.