Hazardous Area Monitoring For Industrial Plant Powered By IoT

ABSTRACT:

In some industrial plants, there are some areas which are to be monitored time to time. Sometimes the conditions may become critical which may lead to loss of property and also human loss .To monitor the conditions we can integrate the smart devices in the areas which are needed to be monitored. Every device will be acting as a beacon and it is connected to temperature sensors. We can broadcast the temperature data along with the location of that particular area through beacons .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 an 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 combustion; that very strong force when shut in a small space and a generally associated with a loud, sharp noise and a supersonic shock wave.

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