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Patent Search

Invention Title	AN INTERNET OF THINGS (IOT) BASED ALERT GENERATION SYSTEM FOR MINING WORKERS
Publication Number	25/2020
Publication Date	19/06/2020
Publication Type	INA
Application Number	202011016153
Application Filing Date	14/04/2020
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0010060000, G16H0050300000, G01N0033000000, G08B0021120000, G08B0021140000

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Abstract:

The present invention discloses a system (100) for real-time surveillance with early warning intelligence on harmful gases, temperature, and humidity, which minimize of workers within mining industry. All these parameters are detected continuously by temperature sensor(102), gas sensor (103), humidity sensor and pulse-rate sens they cross the pre-defined limit, then the user gets alert as a sound warning will automatically turn on along with display indications. This system (100) focuses on a ha gases area supervising system and minimizes risks even deaths of workers within mining industry.

Complete Specification

TECHNICAL FIELD OF THE INVENTION

The subject matter described herein relates to the mine safety systems, particularly it relates an Internet of Things (IoT) based alert generation for mining workers.

BACKGROUND OF THE INVENTION

Mining is one of the more dangerous occupations. The dangers that occur in mining include accidents which have resulted in significant loss of life over the years, as health hazards that miners face on a day to day basis. Miners working at field are exposed to different hazardous gases amongst which some are very harmful for th and may cause death.

Reference is made to literature 'Twentyman, J. (2016), Wearable devices aim to reduce workplace accidents. Financial Times, June' in which the researcher monitors t worker's health (based on breath, heart rate) from a remote location and in the case of some accident they provide the rescue operation. This solution is highly focu worker's health and also protecting the working site from accidents.

Further reference is made to literature 'Lee, J. W. (2019). U.S. Patent No. 10,497,224. Washington, DC: U.S. Patent and Trademark Office' discloses a solution that uses surveillance camera installed at various locations of tunnels, to monitor the workers in and out time, their location, equipment usage and also the wearable status o equipment.

Another reference is made to literature 'BabburiSanthoshi, Santhosh B Panjagal, BalakrishnaMasanam,"Design and Development of Smart Rescue System for Worke Mines through Wireless Sensor Networks and IoT" IJRTE Volume-6 Issue-5, November 2017' discloses about a rescue system that uses a ZigBee mesh network that p

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Page last updated on: 26/06/2019