Patent Search

Invention Title	A WEARABLE BAND FOR MINERS WITH IOT CONNECTIVITY
Publication Number	05/2024
Publication Date	02/02/2024
Publication Type	INA
Application Number	202211016614
Application Filing Date	24/03/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIO-MEDICAL ENGINEERING
Classification (IPC)	A61B0005000000, A61B0005024000, A61B0005020500, A61B0005145500, G16H0050200000

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Abstract:

ABSTRACT A WEARABLE BAND FOR MINERS WITH IOT CONNECTIVITY The present invention describes a wearable article means for sensing various parameters for health safety of miners, and more particularly relates to a wearable band for miners with IoT connectivity. The present invention can monitor and report health vitals of the miner such as he rate and oxygen saturation of the blood. It can also monitor and report various critical ambient parameters such as concentration of toxic gases (i.e., Methane (CH4) and Carbor Monoxide (CO) present in the mining site, and unfavourable ambient temperature. In case of an accident, the smart band can send crucial information about the health conditic of the miner directly to the ground control station so that immediate necessary actions can be taken.

Complete Specification

DESC:FIELD OF INVENTION:
This invention generally relates to a wearable article means for sensing various parameters for health safety of miners, and more particularly relates to a wearable band for miners with IoT connectivity.
BACKGROUND OF THE INVENTION
There are many works carried out on making mining more easy and efficient using innovative ideas and smart technologies. A smart watch-based framework for real- time and online assessment and mobility monitoring was made in which a wrist wearable is proposed which will take information using various sensors and send it on a server from where the details related to health can be analyzed and along with this a screen is also placed for displaying information and interacting with customers.
An integrating wearable's with cloud-based communication for health monitoring and emergency assistance demonstrated a prototype working model along with the health detect iOS app for monitoring health data (heart rate) using wearable, if a serious heart rate data is detected by this app, from proximity sensor on the wearable, the microcontroller in the vehicle enables the health locate app to locate and route to the nearest hospitals for the driver to drive. If the condition is critical and he/she is not responding for in-vehicle button press or driver related activity, then the microcontroller sends CAN message to activate the auto pilot to pull over for assistance.

Arriba-Pérez et al. proposed Collection and Processing of Data from Wrist Wearable Devices in Heterogeneous and Multiple-User Scenarios that introduces and analyses the interoperability issues involved in wearable scenarios like the variety of devices, sensors and operating systems available, the different options to transfer data from wearable to third-party servers, and issues related to the data models

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Page last updated on: 26/06/2019