**IOT BASED MONITORING SYSTEM FOR COAL MINING ENVIRONMENT USING LIFI**

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**ABSTRACT:**

Nowadays, coal miners suffer a lot from accidents in coal mines due to the complexity of mining environment. The number of accidents in coal mining is increasing day by day. There are many dangers in every mine. Environmental parameters are monitored to protect those who work in the mines. Miners are more susceptible to a variety of threats, including gas explosions, gas leakages and severe changes in temperature and humidity. This paper describes the monitoring system for coal miners using LIFI. The device is equipped with a network of sensors such as a humidity sensor, gas sensor , temperature sensor and the data from these sensors can be reliably transmitted using LiFi. Most mining accidents are caused by slow data transmission and loss in transmission. This problem can be solved with the Light Fidelity technology known as high speed data transfer technology. This project implements a mine safety system using the Thinkspeak Iot cloud platform to store and monitor the data . All sensor estimates are continuously monitored using the finest analysis method using Think speak. This system log all data in the cloud using data logging. This data is sent to a server that is managed by the administrator through Think speak cloud platform. This paper provides the Li-Fi system for underground mining to communicate emergency information to workers at risk.