

ABSTRACT

Mining has always been one of the most dangerous occupations, and with the increased demand for coal and minerals, mine safety is becoming important. The hazards covered are accidents, dust (including poisoning by certain ores), high temperature and humidity, noise and vibration, toxic gases, and miscellaneous other hazards. White damp, also known as carbon monoxide (CO), is a particularly toxic gas; as little as 0.1 percent can result in death within minutes. It is a byproduct of incomplete carbon combustion and is formed primarily in coal mines by oxidation of coal, particularly in mines where spontaneous combustion occurs. FIRE DAMP -Methane Gas (CH₄) is a highly explosive and noxious gas. It occurs naturally in coal seams and shale deposits and is a major component of natural gas, which we use to generate energy. A methane gas explosion killed six coal miners overnight in southwestern Baluchistan province near the Afghan border. To decrease the coal mine accident and ensure the worker's safety by monitoring the worker's physical condition and the external condition around them. By developing the wearable jacket with embedded sensors.

Keywords: Mining, dangerous, hazardous gases, Methane, explosive, ensure safety,

Developing, monitoring, physical condition, external condition, sensors.