

Title: Virtual Reality (VR) Simulator for Immersive Hazard Perception Training for Miners

Abstract: Effective safety training is critical to reducing accidents in underground mining. This project aims to create a high-fidelity Virtual Reality (VR) training simulator for hazard perception and emergency response. The simulator will immerse miners in realistic, interactive scenarios, such as equipment failure, gas leaks, and roof collapses, in a safe and controlled environment. The effectiveness of the VR training will be assessed by measuring trainee response times and decision-making accuracy compared to traditional training methods.