Title: IoT-Based Real-Time Water Quality Monitoring System for Mine Effluents

Abstract: Continuous monitoring of water quality is essential for ensuring environmental compliance at mine sites. This project involves the development and deployment of a low-cost, IoT-based water monitoring system. The system will consist of a network of autonomous sensor nodes that measure key parameters (pH, turbidity, heavy metal concentrations) in real-time and transmit the data wirelessly to a central cloud platform. A dashboard will provide live alerts to environmental managers if any parameter exceeds regulatory limits, enabling rapid response to contamination events.