

ABSTRACT

At present, the monitoring hole (mining area) uses manual monitoring methods by field workers. With this method, the mine owner cannot monitor pits or production processes in real-time or directly. In this study, researchers designed a system for monitoring the current conditions based on photos, designing a weather monitoring system in the mine area and, also a monitoring system that is integrated directly with the owner using the telegram application. The design of this tool consists of a monitoring camera and weather monitoring that will be provided can be accessed directly by the owner for monitoring the production process via telegram, while the surveillance system will consist of monitoring the area using a VC0706 series camera and controlling the situation and weather conditions using the DHT22 sensor and rainfall using the Rainfall sensor. The observation location is the production area of PT. Equalindo site project sanga-sanga and placement of weather monitoring instrumentation and mining conditions are carried out in the Pit 14 mining area by considering the activity of the production process and the stability of the slope of the area. With this instrument, monitoring of mine conditions can be done in a fast time spanning 5 seconds to 2 minutes. The system in the research instrument is passive, the system monitors the situation continuously and the results of new monitoring will be sent to the telegram when a user is given a command. With this monitoring system, monitoring of the mining area can be carried out at any time and the weather conditions in the monitoring area can be known which can then become a benchmark for taking action for the mine area.

Keywords: *mining area monitor, monitoring camera, weather monitor*