

**ENGINEERING DESIGN STABILITY SLOPE RELATED WORK SAFETY,
ON AN AREA OF MINING LIMESTONES REGIONAL COMPANY
MINING SARI GUNUNG AT SAMPUNG VILLAGE, SAMPUNG
SUBDISTRICTS, PONOROGO DISTRICTS, EAST JAVA PROVINCE**

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ABSTRACT

Along with the rise of the era, Man as a social species must work to meet the needs of lives in accordance with of natural resources , skill , and capital owned, One of the field work it is a mining. In undertaking open mining, The stability of the slope is one factor that is very important in occupational safety with regard to the problems because of human safety. So should be created the environment and the act of work safe to prevent the accident. The purpose of this research is studying the stability of the slope by the safety factor, Knows zone based on the vulnerability stability that could jeopardize human safety and make a corresponding engineering.

In this study, Used some method of the method survey and mapping the field to know the state of the recent research, purposive sampling methods used in determining the point the sample collection, The method of analysis laboratory to know physical properties rocks and strong rock friction. This data is then used to project the avalanche field by using Rocplane and to take into account the value of slope safety factor by using the method of Markland. Based on the results or various this method , then made zone vulnerability the stability of the slopes on research area.

Based on analysis of the use of stability markland slopes unstable is at LP 4 worth safety factor 0,63 , LP 6 worth safety factor 0,74 and LP 8 worth safety factor 0,97. Where safety factor $< 1,5$ show slope unstable (According to bowles, 1989). To reduce the risk work accident, the process mining been undertaken in steps from the side of a hill, Making the level of done from upon the shoulders of gradually through a process of exploration. Mining who was conducted in stages will reduce burden slope to hold back mass of rock.

Keywords : occupational safety, Slope Stability, markland method, landing management.