

Geological Structure Identification of Rock Distribution with Resistivity Geolistic Methods in Landslide.

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- **Abstract:** The of this study to identify structures subsurface landslide susceptibility zone, and knowing the direction of soil movement on the hillside in case of soil and rock movement. The final 2D cross sections are combined into one with Encom 3D Discover software to identify the subsurface structure of the study area landslides. This research was conducted using the Ngrancah subvillage Pendoworejo Village, Girimulyo Subdistrict, Kulon Progo Regency. The main equipment used in data collection was a resistivity meter (Oyo McOHM 2115 A). The method used is the resistivity method which is based on Ohm's Law. By injecting a current through two current electrodes the potential difference can be measured, which arises from the potential electrode. The results of the analysis and interpretation of the 2-dimensional and 3-dimensional modeling show that the subsurface structure in Ngrancah Subvillage consists of clay rock and sandstone, which is dominated by clay rocks on the surface. The resistivity value of clay rock is 2.8 to 21.15 Om, while for sandstone it is 21.15 to 63.1 Om. The direction of movement of the ground moves from north to northwest and out of the slope parallel to the contour.
- **Keywords:** susceptibility zone, Kulon Progo Regency, Subvillage