Geo-electrical characterization of landslide materials: The case study of slopes at Kundasang

ABSTRACT

The Electrical resistivity imaging (ERI) and Induced polarization imaging (IPI) were carried out at two slopes; slope A and B within Kundasang, Sabah to investigates the geoelectrical characteristic of the landslide subsurface. ERI and IPI data at slope A indicates three apparent zones within the subsurface with correlation with in-situ data and interpreted into three materials characterization. Two survey line of ERI and IPI were conducted at slope B which focusing on the head and foot of the landslide. For the head region of landslide (survey 2), ERI & IPI indicate there are three distinct values observed. Survey 3 were carried out at the foot region of landslides and the ERI-IPI results indicates slightly different pattern compare to survey 2. The results also indicates three apparent zone but totally different range resistivity and chargeability values compare to the results from the head of landslides (survey 2). Overall, the head region (Survey 1 and survey 2) gives higher range of resistivity value compare to resistivity that acquire from the foot region (survey 3).