

Comparison of basic friction angle in kinematic analysis

ABSTRACT

The kinematic analysis is a method in determining the types of failure modes for a rock slope. This analysis is referring to the motion of bodies without reference to the forces that cause them to move and depending on the relationship between slope geometry and internal friction angle of discontinuity plane or failure. The selection of friction angle type for kinematic analysis is an important aspect in term of cost, availability and reliability of testing, equipment and result. Then, kinematic analysis has been conducted by using the peak, basic and conventional friction angles values from triaxial test, tilt test and assumption, respectively for ten (10) selected slopes. Finally, the cheaper, most available and reliable result was shown by the basic friction angle and recommended for kinematic analysis.