

以獨立事件探討崩壞比與山崩潛感及降雨量之關係—以蘭陽溪流域為例

報告者：Yu-Cheng Tai

指導教授：Chyi-Tyi Lee

報告日期：2018/10/18

摘要

本研究以蘭陽溪流域，探討崩壞比與山崩潛感及降雨量之關係。要得知這個關係之前，有幾個步驟尚須進行，首先，篩選出獨立的降雨事件，而篩選之標準，以間隔 6 個月以上，且超過雨量門檻值之初次降雨事件，作為獨立降雨事件。以此標準選出幾個資格符合的事件，再進一步取得各事件的衛星影像、數值地形模型(DEM)、雨量資料等資料，接著，數化事件誘發山崩目錄，並求得山崩潛感因子及促崩因子。將上述的山崩目錄、山崩因子及促崩因子導入羅吉斯迴歸中，以建立事件的山崩潛感模型。最後，可得出崩壞比與潛感值及降雨量之關係式。

The exploration of the relationship among landslide susceptibility, probability of failure, and rainfall by using independent events-Lanyang catchment for a case study

Presenter : Yu-Cheng Tai

Advisor : Prof. Chyi-Tyi Lee

Date : 2018/10/18

Abstract

This study is the exploration of the relationship among the probability of failure, landslide susceptibility, and rainfall in Lanyang catchment. There are several steps going on before acquiring this relationship. First, Select the independent rainfall events. The standard of the selection : the first rainfall events with an interval of more than 6 months and exceeding the rainfall threshold are taken as an independent rainfall events. It is selected the conditional events which exceed the standard, and then choose the satellite imagery, DEM, and rainfall data, etc. Secondly, it is digitized the event-based landslide inventories, obtain the causative factors and triggering factors. Then it is imported the landslide inventory, causative factors, and triggering factors to Logistic Regression in order to build the event-based susceptibility model. Lastly, this study can export the relationship of the relation among the landslide susceptibility, probability of failure, and rainfall.