

A test on infiltration induced sliding failure of a model slope

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This study built a 3m (width) x 2m (height) x 2m (thickness) model slope in Huisun Forest Experimental Station, Nantou, Taiwan. The purpose is to discuss the characteristics of the seismic signals and self-potential variation during failure of the model slope that induced by infiltration. Several accelerometers and self-potential electrodes were installed for monitoring. The water was placed on the top of the model slope to simulate infiltration. Cameras were installed to observe the failure process. The measured seismic signals were analyzed by empirical model decomposition and Hilbert transform and were compared with the self-potential data.

Keywords: landslide, seismic signal, self-potential, model slope, infiltration