坡地防災學報, 11(2):24-37(2012, 12)
Journal of Slopeland Hazard Prevention ,11(2)：24-37(2012, Dec.)

應用內視鏡觀測地層傾度之變化

徐弘明(1)　許中立(2)　吳俊昇(3)

摘　要

在崩塌地層滑動面與移動量之調查時，常於鑽孔中埋入具十字凹槽之測管後再定期以裝有傾斜感應器之儀器檢測測管所產生之傾度變化，並換算為地層之位移量，但因裝設的過程或地層崩滑變動的複雜性，觀測的結果多有不理想者，影響到後續的判釋工作。本文主要是研製分層懸垂的測管埋入鑽孔中，運用工業級內視鏡觀察懸垂的變動情形而換算為地層傾度變化。分析結果顯示，內視鏡觀測比傳統傾度管觀測更能有效的判定崩塌滑動面及地層位移量，但所研製儀器的元件之耐久性與管壁抗壓性仍有改善的空間。

關鍵詞：地層滑動、觀測、內視鏡、傾度管

The Feasibility of Application Laparoscope to Observe Strata Inclination Changes

Hong-Min Shu

Doctoral Graduate Student, Department of Civil Engineering, National Pingtung University of Science and Technology, Pingtung, Taiwan 912, R.O.C.

Chung-Li Hsu

Professor(Corresponding Author), Department of Soil and Water Conservation, National Pingtung University of Science and Technology, Pingtung, Taiwan.

Chun-Sheng Wu

Assistant, Department of Soil and Water Conservation, National Pingtung University of Science and Technology, Pingtung, Taiwan.

ABSTRACT

At present the monitoring method of landslide strata survey and sliding displacement, usually put the

---

(1) 屏東科技大學土木工程系博士生

(2) 屏東科技大學水土保持系教授（通訊作者）

(3) 屏東科技大學水土保持系研究助理