

摘 要

河川測量為治理與管理之必要工作，斷面測量更是測量業務中必須定期辦理的項目。精確的河相量測方法將有利於後續的規劃、設計、執行及維護管理。本研究提供一種移動式量測機組及其量測方法，包括決定測點、測定流速、選定鉛錘、啟動量測機組、控制煞車離合機構、類自由落體垂降以及判讀量測斷面高程等步驟，經由鋼索上之刻度判讀水深、淘刷深度及出水高等各高程，並加以紀錄，可機動快速地取得量測數值。另外，藉與水工結構物(橋樑、墩柱、沉箱)原設計高程比對，作為該結構物之風險管理參考數值，據以繪製歷線、河相斷面圖，建置河川沖淤災害資料庫。本研究技術領域係與河川河道量測裝置及其方法相關，更詳言之，特別係指一種具有機動性而可快速取得數據之河相量測機組及其量測方法。

關鍵詞：河相、水工結構物、沖淤。

A Study of the Mobile Instrument Used on the Cross-Section Survey of River Area

Abstract

Proper evaluation of characteristics of rivers and creeks is an essential first step for planning hydraulic engineering structures. This study method for measuring scouring changes of creeks with high erosion potential. Using the lower and middle sections of Wu creek as study sites a proposed tested regarding the instrumentation. It included on site determination of channel profile scouring and position before, during and after disastrous storm peak flow events. This method has advantage features:(1) mobile fast acquirement of relevant data,(2) solid and sturdy installation,(3) minimum recruitment of manpower and heights with nearby structures,(4) fast for disaster danger forecasting and management.

Key Words : Fluvial Facies, Hydraulic Structure, Degradation Aggradation.