

以 XML 為基礎之風災調查輔助資訊系統

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摘要

台灣每年皆有許多的天然災害其中又以颱風的侵襲最為嚴重。因此一個有效的風災評估模式是有其需要性的。而在發展此一評估模式之前，風災調查輔助資訊系統之建置是刻不容緩的。本研究所探討對象為以 XML 為基礎之風災調查輔助資訊系統的建置。利用 JSP 互動式網路語言來建置系統使用者介面，再輔以 JavaScript 與 SQL 等語言；以使其能於網際網路上與使用者互動運作。另一方面，為達到資料交換之便利性與正規性；風災相關資料可以 XML 之型式來做為輸出及輸入格式。同時，透過 SOAP 通訊協定，本系統亦提供使用者 Web Services；透過此一網路服務使用者可經由遠端搖控之方式去呼叫伺服器端之程式回傳客戶端所需要之資訊。讓客戶端之程式可以更為簡便地存取風災資料並跨越平台間之限制。本論文不單只著重於風災調查輔助資訊系統之建置；同時亦討論了資料交換之方法與網路服務之應用使此系統能達到知識管理之目的。

關鍵詞：氣象災害、風災調查、災損資料庫、XML、SOAP、Web Services

An XML-Based Information System for Wind Hazard Investigation

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ABSTRACT

Taiwan has a lot of damages caused by wind hazards every year. A model to estimate the lost of wind hazards is imminently needed. However, not many research resources have been allocated in this area in the pass. Therefore the lost estimation model of wind hazards is worth pursuing. Before the model can be developed, a good method and tool for wind hazard investigations are necessary. This research is about the building of Wind Hazard Investigation Information System which is based on XML technology. In order to connect with the Internet, the interface of this system is implemented using JSP. Combined with other programming languages, such as JavaScript, Servlet, SQL, etc., the interactive features of the wind hazard data access were discussed. For exchangeability, the wind hazard data can be imported or exported in XML forms. In the meanwhile, the system provide web services via SOAP. The web services allow users to invoke functions at remote sites. This invocation is done using XML technology. With less limitations, client site can access Wind Hazard data conveniently. Actually, this paper is concerned not only about the Wind Hazard Investigation Information System but also the exchange method of data and the application of Web Services in order to achieve the objective of knowledge management.

Keywords: Natural Hazard, Wind Hazard Investigation, Wind Hazard Loss Database, XML, SOAP, Web Services

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