安全且有效率之政府電子化採購機制研究

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摘 要

自民國九十一年台灣加入世界貿易組織後，政府採購議題逐漸成為國際注目之焦點。我們都知道，以往政府採購作業衍生許多問題，諸如採購資訊獲得困難、採購程序繁雜、領標、投標不便以及採購人為弊端叢生…等。有鑑於此，我們將傳統人工化採購作業改由電子化，不僅可以節省大量人力與物力，更可防止人為採購弊端發生，大幅提昇政府採購形象。 網際網路是一個公開的環境，重要的採購資訊在網路中傳輸，如果未經周全加密保護，難免會遭到有心人士隨意竄改、刪除，進而影響採購的公平性。因此我們利用橢圓曲線密碼系統，以較少的位元數達到相同的安全等級，且能增加訊息傳輸的效率性，並結合自我認證公開金鑰系統有效率地驗證公鑰正確性的優點，提出雙向認證機制、簽章加密機制、多重簽章加密機制、盲簽章機制及公平文件交換機制，並將其運用在電子化採購作業程序中，以提高作業安全性，減少儲存成本及增加訊息傳輸的效率性。 此外，本論文特別針對以往各文獻未詳加探討之押標金額的正確性及電子化簽約部分加以研究，藉由我們所設計的機制，政府機關與投標廠商可以透過網路完成各項採購手續，達到真正的電子化。因此，本論文提供一個更安全且有效率的政府採購環境。

關鍵詞 : 橢圓曲線密碼系統、自我認證公開金鑰密碼系統、資訊安全、網路競標、政府採購法。

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