AN IMPROVED STEGANOGRAPHIC SYSTEM FOR PCs AND MOBILE DEVICES

P. M. Satharasinghe

Postgraduate Institute of Science

University of Peradeniya

Peradeniya

Sri Lanka

In a country like Sri Lanka, the amount of information sharing over communication links increases day by day, especially between business parties and also between other state and non-state (private) sector organizations. This work presents *An Improved Steganographic System for PCs and Mobile Devices*. Data Encryption Standard (DES), ZIP compression methodology and caching methodology which enhances the system efficiency are combined with the base Steganographic methodology. A complete system for both PCs and for Mobile devices is implemented in 'JAVA'. The proposed system successfully addresses and overcomes many problems associated with the current Steganographic system implementations. Object oriented software engineering methodology has been used for modeling the system and the system is optimized and carefully debugged. The salient feature of the system is that it is platform independent.

The usability of the proposed information security system in the areas of confidential communication and secret data storing, protection of data alteration, access control system for digital content distribution, media database systems are getting more convenient in the near future.

A test was made to the proposed Steganographic system, using different types of covering media and the experimental results were recorded in terms of system efficiency, resulted Stego-media capacity, file/operating system compatibility and user-friendliness. According to the test results, we have identified some major improvements of the proposed Steganographic system on above mentioned criteria compared to the related Steganographic systems that are analyzed.