

Development of a Data Security Model Using Steganography

Authors : Terungwa Simon Yange, Agana Moses A.

Abstract : This paper studied steganography and designed a simplistic approach to a steganographic tool for hiding information in image files with the view of addressing the security challenges with data by hiding data from unauthorized users to improve its security. The Structured Systems Analysis and Design Method (SSADM) was used in this work. The system was developed using Java Development Kit (JDK) 1.7.0_10 and MySQL Server as its backend. The system was tested with some hypothetical health records which proved the possibility of protecting data from unauthorized users by making it secret so that its existence cannot be easily recognized by fraudulent users. It further strengthens the confidentiality of patient records kept by medical practitioners in the health setting. In conclusion, this work was able to produce a user friendly steganography software that is very fast to install and easy to operate to ensure privacy and secrecy of sensitive data. It also produced an exact copy of the original image and the one carrying the secret message when compared with each.

Keywords : steganography, cryptography, encryption, decryption, secrecy

Conference Title : ICCSIE 2015 : International Conference on Computer Science and Information Engineering

Conference Location : Sydney, Australia

Conference Dates : December 10-11, 2015