Abstract

Information security is the most important issues in network communication in current days. Safe and sound data transfer become more essential and significant, as security is a major concern in the field of message transformation over internet in current years, Cryptography and Steganography are two significant areas of research that involve a number of applications. Cryptography is the technology that involves converting a message text into an unreadable cipher. Steganography is an art of hiding information in a cover image without causing
statistically significant change to the cover image, so a carrier is needed to transfer information. In this proposed work the plain text is transformed to a cipher text using Cryptography technique where after changing the original text into its equivalent binary bits generally different kind of Boolean algebraic operations are used and in the succeeding step using Steganography technique this cipher text is hidden inside a gray scale image as a cover media with dimension 2m x 2m and a secure pictorial block steganography based encryptionalgorithm is proposed to execute the concept of secrecy for transferring text messages before transmitting the information and also mentioned the Cryptanalysis and Steganalysis method for retrieving data at receiver side. The experimental result shows that the algorithm has a high capacity and is better than the previous recommended PBST [5] technique Furthermore, satisfactory security is maintained since the secret message that is hidden inside the image cannot be extracted without knowing the cryptanalysis technique.

References


Index Terms

Computer Science  Algorithms
Keywords
Cryptography  Steganography  Plaintext  Ciphertext  Cryptanalysis  Steganalysis