Computer security, for quite a long time, was almost a limited field of study which was mainly the concern of theoretical computer scientists, electrical engineers, and applied mathematicians. The techniques of concealing data have taken an important role with the rapid growth of intensive transfer of multimedia content and secret communications. There are many techniques used for data hiding and the well-known technique is the Steganography. Steganography is the art of concealing information in ways that prevent detection. For hiding secret information in images, there exists a large variety of Steganography techniques, some are more complex than others and all of them have respective strong and weak points. This paper deals with encrypt and hiding an image in another gray image file using Least Significant Bit (LSB) based Steganography and Arnold's transformation algorithm based Cryptography. This algorithm will be against Noise, Sharpening and Contrast Attacks. Experimental results indicate that the algorithm has good security and imperceptibility in grayscale images.
References


Index Terms

Computer Science    Security

Keywords

Image processing, Steganography, information hiding, Arnold Transform