Enhance Steganography Techniques: A Solution for Image Security

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Abstract

Steganography word is making from two words: one is Steganos that means "covered or secret" and second is the graphic that means "writing". Similarly Cryptography word is also making from two words: one is Crypto that means "Alter original word Meaning" and second is the graphic that means "writing". In this work, Enhance Steganography technique with cryptograph technique is proposed, developed and analyzed. The proposed technique encrypts the confidential image by the proposed encryption technique initially and then hides the cipher image by Steganography technique which is using randomization techniques during selection of LSB. The results of the proposed technique are discussed and analyzed based on the peek signal to noise ratio (PSNR) and Correlation. The proposed technique is simple, fast secure and efficient, it strong to attack and better the image quality.

References


- Akhtar, N. ; Johri, P. ; Khan, S. &quot;Enhancing the Security and Quality of LSB Based Image Steganography&quot;; Published in 5th IEEE International Conference on Computational Intelligence and Communication Networks (CICN), 27-29 Sept. 2013 Page(s):385 - 390 INSPEC Accession Number: 13896095


- Siva Janakiraman, Anitha Mary, A, Jagannathan Chakravarthy &quot;Pixel Bit Manipulation forEncoded Hiding-An Inherent stego&quot;; Published in International Conference on Computer Communication and Informatics (ICCCI -2012), PP no 1-6 Jan. 10 – 12, 2012, Coimbatore, INDIA.


- Philjon, J. T. L. ; Rao, N. V. &quot;Metamorphic Cryptography - A Paradox between Cryptography and Steganography Using Dynamic Encryption&quot;; Published in IEEE-International Conference on Recent Trends in Information Technology, ICRTIT 3-5 June
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Index Terms

Computer Science          Security

Keywords

Image Steganography       Secret Image       Cover Image    Stego Image    Steganalysis
Cryptography

LSB(Least Significant Bit)

Security.