
ABSTRACT

In the digital world or in fast world, data is the heart of the computer communication and the global economy. The most important of reducing a chance of the secret message being detected during the transmission is being an issue now days. Some Solutionisoccurr while transmitting the secret message in different ways from one side to another,anotherBesides hiding data for confidentiality, this approach of information hiding can be extended to copyright protection for digital media. We use LSB technique in hiding messages in an image.Cryptography is Greek letter, meaning of Crypto is hiding and meaning of graphy is writing.The goal of steganography is to hide the secret information or message from not authorized organization.

The image steganography define a task of transferring the Encrypted information to the destination without being detected by the attacker.In this project I used an image based steganography that Least Significant Bit techniques not sequentially encoding concept on images to improve the security of the communication. In the LSB approach, the solution toreplace the Least Significant Bits algorithm of the stego image with the Bits of the data to be hidden without desolate the property of front cover image forcefully.

KEYWORDS: Steganography, information hiding

INTRODUCTION**Background**

Steganography become more important as more people associate the cyberspace transformation. Steganography is the concept of concealing information in ways that prevent the expose of invisible messages. Steganography include an array of secret communication methods that hide the message from being seen or discovered.

Goal & objectives

Steganography is the process of hiding a secret message within a larger one in such a manner that someone can't know the contents of the hidden message. The purpose of Steganography is to provide unknown communication between two groups. Steganography is the art of covered or hidden writing. The goal of steganography is secret communication to invisible message from a third group.

Steganography hides the covert message but not matter that two groups are communicating with each other. The steganography process generally involves putting a hidden data in some shipping medium, called the carrier. The secret message is embedded in the carrier to design the steganography standard. The use of a steganography key may be employed for encryption of the hidden message and for randomization in the steganography project. In summary:

steganography_medium = hidden_message + carrier + steganography_key

In modern digital steganography, data is first encrypted by the usual means and then inserted, using a specific method, into unnecessary data that is part of a particular file format such as a JPEG image. Assume of all the bits that show the same color pixels repeated in a row. By applying the encrypted data to this unnecessary data in some nonconspicuous way, the result will be data that appears to have the "noise" markings of regular, simple

data.

This project comprehends the following objectives:

- (i) To yield security mechanism based on steganographic concepts.
- (ii) To explore techniques of hiding data using steganography.

Problem definition

The goal of the project is to encrypt the message i.e., hide the data over an image using different steganographic principles and to compare those principles in the context of speed, quality of concealing and the use of watermarks and to define their performance in data security.

METHODS

To Generate Image Steganography Different Modules are used to hide the text message like Admin Module ,User Module, Encryption Module, Decryption Module ,etc

Admin Module

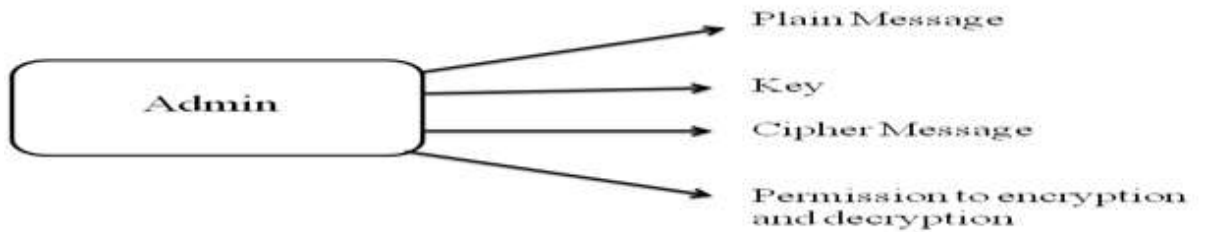


Fig 1: Admin Module

In Admin Module Admin Have Plain text message which hide in Secret Message, also admin have key to generate cipher Message and only Admin have access to encrypt the message and also decrypt the secret message in plain text message.

User Module

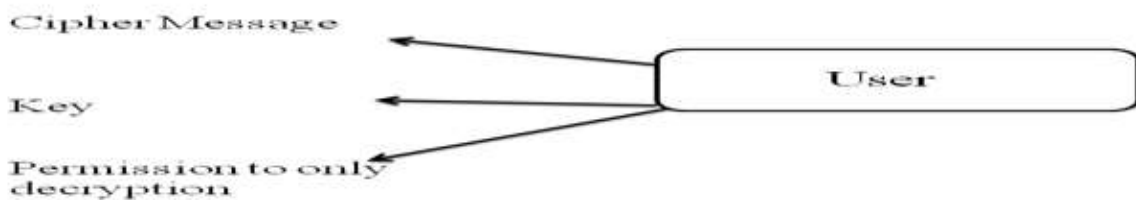


Fig: 2 User Module

In User Module User Have Cipher message which send by admin,also user have key to generate plain text Message which are also send by admin and user have only access to decrypt the secret message in plain text message using given key.

Encryption and Decryption Module

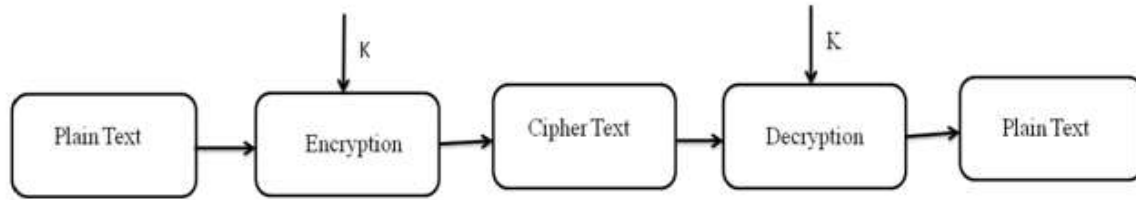


Fig 3:Encryption and Decryption Process

MATERIALS

Steganography is the art of hiding text message into Secret message. The goal of it is to rendering and identify useless covert messages and also identify suspected information streams and determine whether or not they have hidden message is encoded and if its possible then it recover the hidden information.

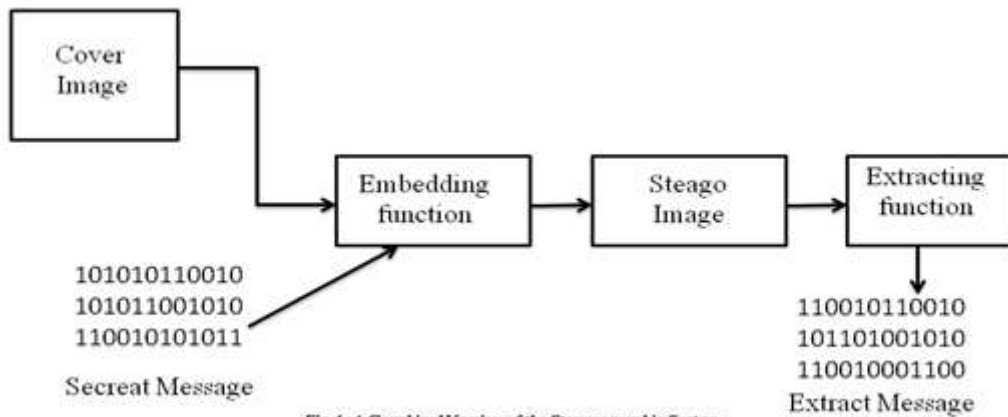
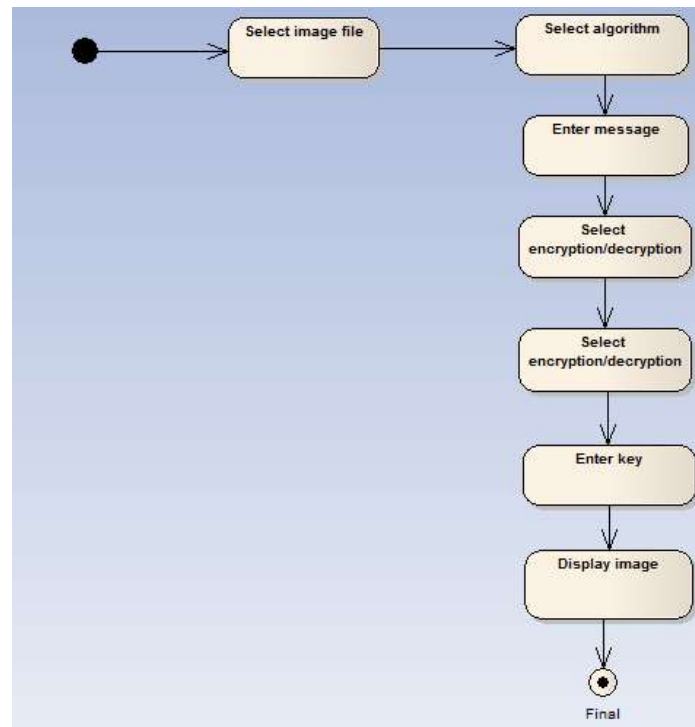


Fig 4 :A Graphical Version of the Steganographic System

Stegoanalysis generally starts with several open information streams but concern whether any of these contain hidden message .Technique of the steganography hiding information within an electronic medium cause conversion of the medium properties that can result in some form of degradation or unusual characteristics.



RESULTS AND DISCUSSION

Formula

It is a Mathematical Representation of plain text and Cipher Text are as follows:

1. $Y = E(X, K)$
2. $X = D(Y, K)$

Where,

Y=Cipher Text

X=Plain Text

E=Encryption

K=Key use for encryption, decryption

D= Decryption

CONCLUSION

Now a days, In Fast life the data is transfer using internet is greatly growing up, because its easier and faster to hold and transfer the data to destination. Many Individual and grouping business people use to transfer business documents, important information using the Internet, also in military or Indian or other Security Team used Internet Steganography to transaction important information or text from one user to other. Security of data is an important issue while transferring because unauthorized organization can hack the data and make it useless.

For this Purpose, we used new Steganography technique for hiding the secret data in image this approach is called as the Image Steganography. In this application we create a Image in which we hide the secret data and this data is highly secure by a specific key using specific algorithm.

The main aim of this project is to develop image steganographic application which highly secure our data. The proposed application provide the strong security to data and can protect secret data from hacker. When we encrypt the message in stego image and then image is protected from the other secret password. So, it is

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inaccessible to become useless and damage the secret data by unauthorized organization. For hiding the private data in image we used the Least Significant Bit which is faster and reliable approach.

Finally, we conclude that Admin can safely transmit the secret message to other user which is embedded in stego image and hacker cannot hack the data easily.

I used the Least Significant Bit algorithm in this project for developing the application which is faster and safe and squeezing scale is moderate compared to other algorithms.

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