

# REVIEW ON DATA HIDING USING STEGANOGRAPHIC TECHNIQUES

<sup>1</sup>Ghule Isha Chetan, <sup>2</sup>Sonawane Dhanashri Hiranman, <sup>3</sup>Sakhala Siddhi Shashikiran,  
<sup>4</sup>KhadeTejashree Tukaram, <sup>5</sup>Dr. Dahake Ranjana

MET Bhujbal Knowledge City, Adgaon, Nashik

**Abstract** - Nowadays, computer-based communications are at the threshold of making life easier for everyone in the world; from sharing information, to communicating with each other, to exchanging electronic documents, and to checking bank balances and paying bills. Nonetheless, information security is an essential factor, which must be taken into consideration to ensure secure communications. There are significant interests in security approaches that aim to protect information and digital data, since the growing increase in uses of the internet and multimedia, have raised the interests in image steganography in order to secure and protect them. In our proposed system we are creating a feature where user will be asked to select the image & add secret message, user will also select the receiver for decryption & enter the key for captcha, Then receiver will enter the key and decrypt the secret msg.

**Keywords:** image, audio, steganography, captcha, system.

## INTRODUCTION

The first recorded use of the term was in 1499 by Johannes Trithemius in his *Steganographic*, a treatise on cryptography and steganography, disguised as a book on magic. Generally, the hidden messages appear to be (or to be part of) something else: images, articles, shopping lists, or some other cover text. For example, the hidden message may be in invisible ink between the visible lines of a private letter. Some implementations of steganography that lack a shared secret are forms of security through obscurity, and key-dependent steganographic schemes adhere to Kerckhoffs's principle.[2] The advantage of steganography over cryptography alone is that the intended secret message does not attract attention to itself as an object of scrutiny.

Plainly visible encrypted messages, no matter how unbreakable they are, arouse interest and may in themselves be incriminating in countries in which encryption is illegal.[3] Whereas cryptography is the practice of protecting the contents of a message alone, steganography is concerned with concealing the fact that a secret message is being sent and its contents. Steganography includes the concealment of information within computer files. In digital steganography, electronic communications may include steganographic coding inside of a transport layer, such as a document file, image file, program, or protocol. Media files are ideal for steganographic transmission because of their large size. For example, a sender might start with an innocuous image file and adjust the color of every hundredth pixel to correspond to a letter in the alphabet. The change is so subtle that someone who is not specifically looking for it is unlikely to notice the change.

Our system consists of objective like a scalable approach system which will allow system to extend better features in future. System is built with great user interface so that user can be able to use the system easily.

In our proposed system we are creating a feature where user will ask to select the image & add secret message, user will also select the receiver for decryption & enter the key for captcha, Then receiver will enter the key and decrypt the secret msg.

The internet plays a key role in transferring information or data from one organization to another organization. But anyone can modify and misuse the valuable information through hacking at the time. Steganography plays a very important role in hiding the secret data or information inside the digitally covered information.

**Functional requirements:** may involve calculations, technical details, data manipulation and processing and other specific functionality that define what a system is supposed to accomplish. Behavioral requirements describe all the cases where the system uses the functional requirements; these are captured in use cases.

**Nonfunctional Requirements:** (NFRs) define system attributes such as security, reliability, performance, maintainability, scalability, and usability. They serve as constraints or restrictions on the design of the system across the different backlogs.

The area differs in what feature of steganography is utilized in each system.