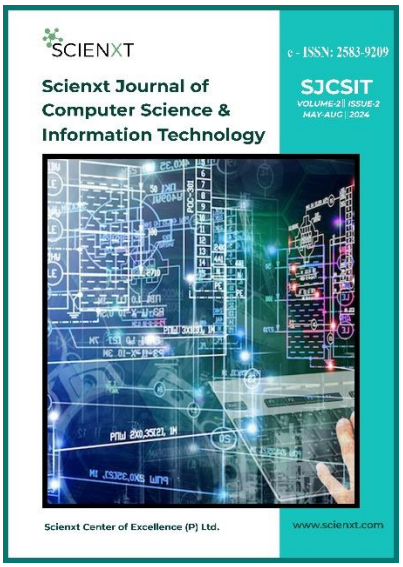

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Color image visual cryptography: a review

[*1]Prof. Manjushree K, [2]Pranav Kumar, [3]Priyanshu Sugam, [4]Surya Dev Singh

[*1]Assistant Professor, Department of Computer Science and Engineering BNM Institute of Technology Bengaluru, India
[2,3,4] Student, Department of Computer Science and Engineering, BNM Institute of Technology Bengaluru, India

**Corresponding Author: Prof. Manjushree K*
Email: priyanshusugam100@gmail.com

Abstract:

In the contemporary world, safeguarding information from potential threats is a crucial concern. Researchers continually explore innovative methods to enhance information security against unauthorized access. Numerous cryptographic techniques have been developed, with ongoing advancements in this field. This paper provides a review of a sophisticated approach to information concealment known as Visual Cryptography. Visual Cryptography represents a unique encryption method for hiding information within images. The unique quality is that the encrypted image cab be decrypted without the aid of the computer by employing the appropriate image key, which the human visual system can recognize. With the use of this cryptography approach, visual data—such as text and pictures—may be encrypted so that human eye can decrypt it without the aid of computers. A mystery picture in visual cryptography is changed over into a few sharing pictures, which are significant but appear noisy or distorted. Combining these share images will reveal the original secret image. With hundreds of millions of users worldwide depending on computing devices and services, visual cryptography (VC) has emerged as a critical encryption technique for protecting images in a variety of applications. This procedure plays a critical part in guaranteeing the security of delicate data in regions such as voting, online exchanges, and security.

Keywords:

Color Visual Cryptography, Color decomposition, Harris Hawks Optimization, Image encryption, Image decryption.