## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 3, June 2024

## Intelligence System for Data Hiding Behind an Image

Trupti S. Deshmukh<sup>1</sup>, Shrutika Siddheshwar Sambharam<sup>2</sup>, Aarti Anand Sherla<sup>3</sup>, Monika Lingraj Meragu<sup>4</sup>, Radha Devidas Vadlakonda<sup>5</sup>

UG Students, Department of Information Technology <sup>1,2,3,4</sup>
Assistant Professor, Department of Information Technology <sup>5</sup>
Shree Siddheshwar Women's College of Engineering, Solapur, Maharashtra, India tsdeshmukh@sswcoe.edu.in<sup>1</sup>, shrutikasambharam@gmail.com<sup>2</sup>, sherlaaarti924@gmail.com<sup>3</sup>, monikameragu27@gmail.com<sup>4</sup>, radhavadlakonda118@gmail.com<sup>5</sup>

Abstract: Steganography is the art and science of writing hidden messages in such a way that no one apart from sender and intended recipient even realizes there is a hidden message. There are often cases when it is not possible to send messages openly or in encrypted form. This is where steganography can come into play. While cryptography provides privacy, steganography is intended to provide secrecy. The aim of steganography is to hide the secret messages and also for communication and transferring of data. Steganography is also used in transferring the information of credit card or debit card to e-commerce for purchasing items. So no one apart from the authorized sender and receiver will be aware of the existence of the secret data. This intends to give an overview of image steganography and its uses and hiding the files (text file, audio file etc) by using LSB and AES algorithm where AES used for password protecting system so that if anyone can find the stego image they will not read the message because data still in the encrypt form and LSB is used for hiding the data.

**Keywords**: Steganography, Image Steganography, Secret Message Embedding, Stego Image, Cover Image, Message Extraction, User Authentication, Encryption Techniques, Decryption Algorithms, Key Management, Secure Transmission, Data Security

DOI: 10.48175/IJARSCT-18911

