**TITLE: - DATA HIDING IN AN IMAGE USING COMBINATION OF STEGANOGRAPHY, CRYPTOGRAPHY AND TRANSMISSION**

**ABSTRACT: -**

Cryptography and Steganography are the two popular methods for secure data hiding and Transmission. Cryptography is the science of encrypting and decrypting data. Based On complex mathematics. While Steganography is the practice of hiding information within something that appears to be no information is hidden at all.

Both methods have their advantages, Information is hidden using steganographic techniques will not attempt to decrypt the information because intruder will have no idea that there is any hidden information. Whereas message encrypted using advanced Cryptographic encryption algorithms is very difficult to decrypt for an intruder so combining steganography and cryptography makes information more secure.

The primary purpose of this project is protecting confidential data that being transmitted in a network from counterattacks possibly by combining steganography and cryptography.

Different Cryptographic algorithms are used to encrypt the data based on sensitivity. And LSB (Least Significant Bit) method is used to hide the information into images.

**Implementation** **details**: -

* Python scripting
* Python OpenCV library to read image
* Cryptographic Algorithms encrypt the data (DES,AES, Ceasar cipher,Viginere cipher)
* LSB (Least Significant Bit) method to embed the text / image data into images
* Django framework to make the system as web application
* HTML,CSS and Java script for the front end template
* Postgres/MySQL data base to store data and transmit between the users