

VIDEO STEGANOGRAPHY

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ABSTRACT

Video Steganography is the exercise of concealing records inside different information in order to cover the real act of transmission. it's miles frequently utilized, however because of their incidence at the web, digital photos are the maximum properly-appreciated. There are a huge range of steganography strategies to be had for concealing touchy information in video frames, some of which might be extra state-of-the-art than others and every of which has unique strength and weaknesses. It has a few packages may want the essential information to be absolutely invisible, while others would possibly want a larger secret message to be hid. The message of this venture is hid within the visible. 2 with a purpose to enhance the visible nice of carrier video, we examine the embedding error of facts hiding with enhancing partitioning parameters of CB, PB and TB, and alter the transform block decision to embed secret message and replace corresponding residuals synchronously.

Keywords: AES Algorithm, Text Hiding, Free to Use, Video Steganography.

Introduction

In the present day era of era, whatsapp or some other social media platform is simplest the way to proportion your personal textual content to anyone, but there are few possibilities that, even though you share your textual content in encrypted form there are excessive danger that it is able to be seen through any intermediate person who's unauthorized any can effortlessly tamper our facts, so, we made a mechanism called video steganography. Steganography is the approach 10 of hiding any secret statistics like password and textual content in the back of authentic cover report. unique message is transformed into cipher textual content by way of the usage of secret key after which hidden into the LSB of unique image. appropriate set of rules consisting of LSB is used for image steganography suitable parameter of security and authentication like PSNR, histogram are acquired at receiver and transmitter facet that are precisely identical, hence data protection can be expanded.

Literature Study

For this paper we have gone through many research paper and articles to gain lot information, to get a clear vision and idea about the project.

Sr. No.	Publication	Author Name	Paper Name	Year	Discretion
1.	International Conference on Intelligent Computing	Manohar N, Peetla Vijay Kumar	Data Encryption & Decryption Using Steganography	2020	Many strategies had been proposed for video steganography however they are no extra extraordinary styles of codecs, secured, excellent, of the outcomes. So

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	and Control Systems				right here endorse comfortable steganography methods, i.e. secure base LSB approach, Neural Networks & Fuzzy common sense, and test their the usage of PSNR and MSE records of the strategies. That records-set has gathered is from video streams
2.	International Conference on Science Technology Engineering and Mathematics	S.Hemavathi, K.Jayasakthi velmurugan	Video Steganography by Neural Networks Using Hash Function	2019	Embedding procedure, the cover video and the statistics to be hidden is uploaded. Then the hash algorithm and neural networks are implemented to form the steganography video. For the extraction technique, the reverse system is applied and the secret statistics is obtained. All experiments are carried out the use of MatLab2016a software.
3.	International Conference on Smart Structures and Systems I	Meenu Suresh, I. Shatheesh Sam	Single level Single level Discrete Wavelet remodel based totally Video Steganography on Horizontal and Vertical coefficients.	2020	The authentic diagonal coefficients, embedded coefficients and original approximation coefficients are used to reconstruct the stegano- video after embedding. For the duration of the extraction process the watermark is extracted from the horizontal and vertical coefficients of stegano- video.
4.	International Journal of Engineering & Technology	Mohammad A. Alia , Khulood Abu Maria	An stepped forward Video Steganography: The usage of Random Key-structured.	2019	This newsletter proposes an stepped forward technique for video steganography. The development made by means of searching for genuine matching between the secret text and the video frames RGB channels and Random Key based facts, accomplishing steganography performance standards, invisibility, payload/ capability and robustness.

Proposed Model

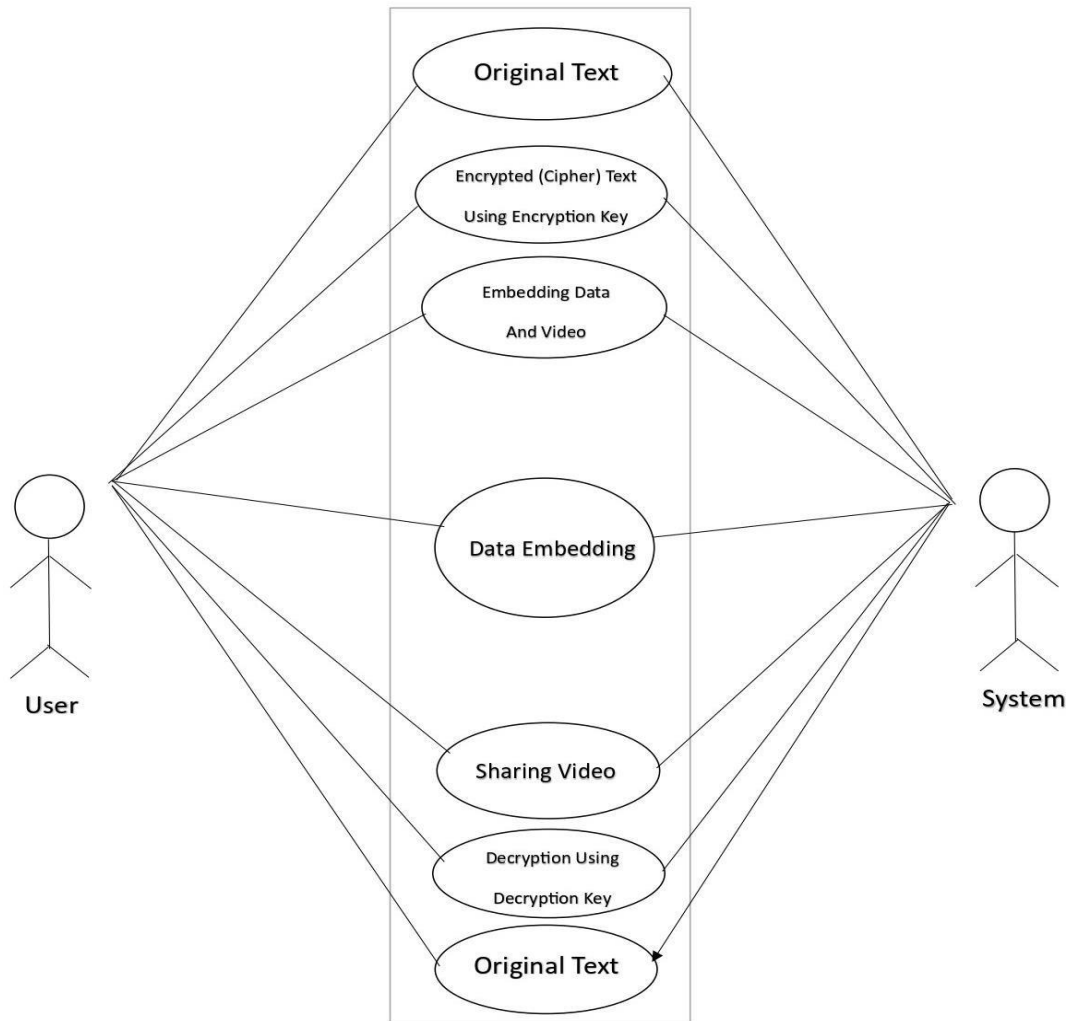
Front End

- These are used to build the graphical user interface of application, making them interactive and responsive. They help to create User interface of desktop application that users interact. Tkinter is the python GUI library used in this desktop application.
- To implement desktop application, you would typically need to work with graphical user interface libraries and databases to process and store the data effectively. While Python Tkinter user interface library can be part of your desktop application, they do not provide the tools or infrastructure needed for the backend processes involved in these types of projects.
- Graphical person interface, also called computer app, is a part of software utility or desktop app that users interact with without delay. It refers to the consumer interface and consumer revel in components which can be visible and reachable to customers.

Backend

- The backend server less manages the desktop apps, including data retrieval, processing and users credentials.
- The SQ Lite the database management system handles user accounts and data synchronization.
- The backend server much less is the part of a software or computer app that isn't at once accessed or interacted with by way of users. it's far answerable for handling at the back-of-the-scenes responsibilities, processing requests from utility and coping with the software's business good judgment, statistics and processing requests.

Proposed System Architecture



Conclusion

Information security using data hiding audio video steganography with the help of computer forensic techniques provides better hiding capacity. We have worked on hiding password and text behind video and audio file and extracted from an file using 4 least significant bit insertion method for video steganography and phase coding audio steganography. We are hiding encrypted data using steganography and cryptography behind selected frame of video using 4LSB insertion method. The conclusion of this paper is secure communication between sender and receiver. As future work, we shall manipulate both sample count and delta to improve the capacity and shall also improve the security by incorporating other hiding techniques specifically designed for video or audio streams.

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