

Image Steganography Based On Wavelet Transform

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Abstract: Image Steganography technique play important role in digital multi-media data copyright protection. The process of Steganography applies in different field such as image Steganography, video Steganography, text Steganography and voice Steganography. The process of Steganography performs different modes one is spatial domain and another is frequency domain. Transform based operation used in frequency domain and Pixel based operation performs in spatial domain. The image Steganography faced a problem of geometrical attack.

Keywords -steganography, domain, pixel, spatial.

I. Introduction

Security in communication is a most important issue and encryption is one of the ways to ensure security of the communicated message. Encoding is the transformation of data into some coded form. Its purpose is to undertake privacy by keeping the information hidden from anyone for whom it is not signify. Decoding is the reverse process of encoding; it is the transformation of encrypted data back into some intelligible form. Cryptography is popularly known as the study of encoding and decoding of messages. Encryption processes are used in communicating information using an algorithm to make it secure for transmission. It referred to as a key. The result of the process is encrypted information. The reverse is called to as decryption. Steganography is the technique of hiding information in digital media in order to suppress the existence of the information. The media with hidden information is called as stego media and without hidden information are called cover media [1].

II. Related Work

A secure color image steganography technique based on DWT is proposed which exhibits high fidelity data hiding in the frequency domain by embedding data in selected image blocks from DWT sub-bands [2]. The method exhibits in-crease in the quality of stego image because secret messages are embedded in high frequency sub-bands which is imperceptible to the Human Visual System [3]. The experimental results also reveal a decent performance against common steganalysis attacks

III. Proposed system

Security and privacy protection is critical issue in multi-media data. So various researcher try to improve security strength and copyright validation of multimedia data such as color image, movie and video, for improvement of strength used different algorithm such as discrete wavelet transform function, single value decomposition technique, pixel based technique and some used neural network based technique. In the journey of research feature based steganography technique are used in current research tend. Feature based steganography technique provide great security strength against geometrical attack.

The Feature based steganography technique used wavelet transform function for feature extraction in the form of layer. The extracted feature from stego image and host image passes through support vector machine for the generation of valid pattern for stego image and host image. For the measurement of correlation coefficient of both pattern used person's coefficient and finally stego image is performed. A person coefficient is mathematical function used for coefficient selection of stego image is used.

IV. Processing Of Proposed Algorithm

Digital Steganography technique based on support vector machine and Gabor wavelet transform function, the feature of transform function passes through support vector machine [4]. The support vector machine classified the data of feature extracted by transform function, the extracted feature of transform function. Here used an important function for estimate the correlation coefficient of both the pattern host image pattern and Steganography pattern.

If the correlation coefficient factor estimate the value of correlation is zero then hiding process is done. The process of proposed model divide into three section first section deals with initially take host image and Stegano image passes through gabor transform function for feature extraction after the feature extraction applied classification task done by supportvector machine. Support vector machine generates the pattern of feature of host image and Steganography image. Finally apply person's coefficient correlation measure the strength of pattern for hiding process.

V. Conclusion

The feature-based Steganography technique for image used wavelet transform function for feature extraction. In steganography process extracted features going through support vector machine classifier for classification of feature pattern. The Classified feature pattern of watermark image.

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