PROJECT PROPOSAL

EXPLORING STEGANOGRAPHY: SEEING THE UNSEEN

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INTRODUCTION:

Covert communication is one of the most major concerns in today's world. With the growing needs of the secure means to transfer an information via Internet, the process of exchanging information secretly has become valuable due to the increase of data to be exchanged over Internet. Hence, the confidentiality and integrity of data requiring protection of unauthorized access and use of wanton, has led to tremendous growth in the field of data hiding. Nowadays protection system can be classified into - information hiding(Steganography) or encryption information(Cryptography) or a combination between them. Cryptography and Steganography are well-known and widely used techniques that handle information to cipher or hide their existence respectively.

ABSTRACT:

Steganography is the art of hiding information in ways that prevent the detection of hidden messages. It includes a vast array of secret communications methods that conceal the message's very existence. These methods include invisible inks, microdots, character arrangement, digital signatures, covert channels, and spread spectrum communications. Using Steganography, information can be hidden in various mediums known as carriers. The carriers can be images, audio files, video files and text files. On the other hand, Cryptography is derived from the Greek words: “kryptós” meaning "hidden" and “gráphein” meaning "to write" - or "hidden writing". It refers to the art of maintaining the secrecy of data by converting it to some other form.

Steganography by itself does not ensure secrecy, but neither does simple encryption. If these methods are combined, however, stronger encryption methods result. Although cryptography and steganography provide an acceptable level of security when used separately via communicating in the unreliable medium like the Internet, advances in steganalysis make it a constantly evolving field. ***This project will be a review on how the benefits of Steganography and Cryptography can be combined to hide a secret message. (i.e, If an encrypted message is intercepted, the interceptor knows the text is an encrypted message. But with steganography, the interceptor may not know that a hidden message even exists). This provides two levels of security and with the usage of encryption and combining hashes, integrity and authentication can be achieved.***

References:

http://docsdrive.com/pdfs/ansinet/jas/2010/1650-1655.pdf **-** An overview given by B.B Zaidan, A.A Zaidan - Faculty of engineering multimedia university, Jalan Multimedia and A.A Alfrajat, H.A Jalab - faculty of Computer Science and Information Technology, University Malaya**.**

https://pdfs.semanticscholar.org/4953/6d47887d5c8de44d2d50bc9067cfe377d601.pdf - Department of Engineering, UTM Razak School of Engineering and Advanced Technology, 2,3 UTM Kuala Lumpur, 54100 Jalan Semarak, Kuala Lumpur, Malaysia.