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**IMAGE STEGANOGRAPHY FOR
ENCRYPTION OVER NETWORK
SECURITY**

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ABSTRACT

The rapidly growth of Internet has increase the data being exchanged through various type of network. Privacy and the safety of data have become concerns as the data being send over the network can be steal and manipulated. Two types of encryption in digital media is cryptography and steganography. Cryptography was commonly used for encryption so that the data cannot be understand by others but this technique was exposed to decryption because anyone would have known that this data contain secret message. Image steganography was created to hide any form of information within digital image without being noticed by others to avoid decryption of the hidden information. Image steganography consist of three elements that is cover image, hidden message and stego image (cover medium + hidden message). The technique studied in this thesis aims to transmit data without losing the quality of cover image and to improve image steganography using MATLAB. To achieve this goal, Least Significant Bit (LSB) algorithm is used for data encoding and decoding. The system was implemented using MATLAB platform. The performance of the image steganography method has been evaluated based on the quality of cover image with stego image, robustness and capacity of data hidden in the stego image. The image steganography for encryption is simple to implement and the selections of image is important to achieve the objective of image steganography. The experimental results prove that the proposed technique conserved the quality of cover image and improve the image steganography by using MATLAB platform.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

This chapter discuss on introduction to the system which explained the introduction, problem statement, objectives and scope.

1.2 BACKGROUND OF STUDY

Digital data being exchanged over various type of networks is widely used due to the growth of Internet and the advancement of computer network in our daily life [1]. Confidentiality have become concerns as the sensitive or significant information being send over the abundant network can be steal and manipulated by 3rd party user.

Cryptography or known also as encryption in the modern world offers an obvious method to information safety. Cryptography is a process that convert or manipulated a message so that it cannot be understand by others. The hieroglyph that was found carved into the wall of a tomb from Old Kingdom of Egypt to protect its mystery and conspiracy was the classic and earliest cryptography. Modern cryptography used algorithm to encrypt and decrypt information. The disadvantage of cryptography is that it was exposed to decryption because anyone would have known that this data contains secret message [2].

The word steganography is gotten from the Greek words 'stegos' significance cover and 'grafia' meaning writing defining its importance in composing characterizing it as covered writing. In picture steganography, the data is shrouded only in pictures. Steganography is the craftsmanship and study of mystery communication. It is the acts of encoding or inserting mystery data in a way with the end goal that the presence of the data is imperceptible [3].