ABSTRACT

The developing information technology to influence important within increasing cyber crime on the communication surface and in particular information exchange message over electronic media. Combination of special quality Cryptography within message pseudonymous and Steganography excess to hide message in certain of media to be one of two the best choice for cope with that problems.

This final project has designed and simulated a combination system which making the best use of system Cryptography and Steganography on the text message at image media. The method used is SSB-4, bit 4^{th} replacement technique. Each bit of the message character values will be inserted at the bit 4^{th} in each pixel of a cover image. To enhance security, the message that will be inserted, is encrypted first using Cipher Hill Modification algorithm. Cipher Hill Modification algorithm do make pseudonymous at message character (plaintext) to be array character it matters but little (ciphertext) with making the best use of invers matrix (pseudoinvers) on the key to be used. Encryption process produce length of ciphertext character which no the same with length of plaintext character so that more message unspecified inserted in cover image.

From the test results, stego image still has a good quality, System was build have passably security so do with stego image was result still has a good quality. But this system only has a resistance to noise in a certain level limit.

Keywords : ***Steganography, Cryptography, SSB-4, Pseudoinvers, Cipher hill, Plaintext, Image, Cover image, Stego image, Robustness.***