

# **Secure Image Encryption Using Block-based and Blowfish Symmetric Algorithms**

**Yi Mon Htet, Khin Than Mya**

*University of Computer Studies, Yangon*

[18.9.1985yimon@gmail.com](mailto:18.9.1985yimon@gmail.com)

## **Abstract**

*Encryption is used to securely transmit data in open networks. It can also be defined as the process of obscuring information to make it unreasonable without special knowledge. Encryption is the process of transformation the images to ensure its security. Most of the available encryption algorithms are mainly used for textual data and may not be suitable for multimedia data such as images. This system presents a block-based transformation algorithm based on the combination of image transformation and a well known encryption and decryption algorithm called Blowfish. The original image is divided into a random number of blocks and then shuffle within the image. The generated image is encrypted using the blowfish encryption algorithm. From the results, the correlation between image elements was significantly decreased by using the proposed technique. It takes a variable-length key, from 32 bits to 448 bits. Blowfish is a fast cryptographic software algorithm and symmetric and symmetric block cipher.*