**A Technique for Multi-Spectral Satellite Image Compression Using EZW Algorithm**

**ABSTRACT**

In this paper, Discrete Wavelet Transform (DWT), Embedded Zero tree Wavelet algorithm (EZW) and Huffman coding techniques are used to compress the multispectral satellite images. Wavelet transform is used to break the complex images into small units and can be reconstructed with high precision. The EZW algorithm is a lossy compression algorithm and it achieves better compression ratio at low bit rates. The principle of Huffman coding is the data that occurs frequently are reduced or encoded in to number of bits. Experiments are carried with the multi-spectral IKONOS satellite imagery and Still image (LENA). The results showed that there is an increase in compression ratio. Moreover, the accuracy of the reconstructed image is calculated using confusion matrices. The overall users accuracy and producers accuracy of the reconstructed IKONOS image is 96.02% and 95.51% respectively.

***Keywords:*** Discrete Wavelet Transform, Huffman coding, Multi-spectral images, Compression.