

## IMPLEMENTATION OF IMAGE COMPRESSION USING MODIFIED SPIHT ALGORITHM FOR SPACE APPLICATIONS

## MANIMEGALAI V

KPR Institute of Engineering and Technology, Kollupalayam, Tamil Nadu, India

## ABSTRACT

This paper describes a well known algorithm of Pearlman Set Partitioning in Hierarchical Trees SPIHT is to restrict the necessity of random access to the whole image to a small sub images only. The main idea is based on partitioning of sets, which consists of coefficients or representatives of whole sub trees. The decoder duplicates the execution path of the encoder to ensure this behavior; the coder sends the result of a binary decision to the decoder before a branch is taken in the algorithm. Thus, all decisions of the decoder are based on the received bits. The name of the algorithm is composed of the words *set* and partitioning. The compression performance is measured with peak signal to noise ratio compared to the original codec remains still the same or nearly the same. This code can be implemented through MATLAB.

KEYWORDS: Image Codec, Image Compression, Digital Image Processing