

Abstract

Digital Image Compression is the process of reducing the Image size by applying various techniques on the original input. Image Compression is readily needed in today's paradigm of communication, especially when we have ever increasing demand of Bandwidth. The Image Compression usually degrades the quality of the image. It is very high sometimes despite being an unwanted phenomenon. It can be said that it is primarily due to the Compression Techniques being used.

Thus, we can try to minimize the distortion in the Image and produce an image of same eternal quality as the original one by applying techniques which provide us with the most sophisticated mathematical framework which describes a Digital Image most efficiently. The tool is known as Discrete Wavelet Transform (DWT), which replaces the older Discrete Cosine Transform (DCT) used in JPEG Technology. The newer standard which uses DWT is JPEG2000, which is far more efficient and robust than its older counterpart. This has been shown and performed in this project successfully.