Abstract

Watermarking on Digital Images have different methods, some of them deals with frequency
domain. The Watermarking techniques using frequency domain produce better results either concerns with image quality or invisibility of the watermark. The digital watermarking is such that it provides copyright protection by information hiding. The researchers all over the world are still trying to find out the way to create robust Digital Image Watermarking Techniques. This research paper produces the new concept of efficient watermarking technique for the Color Image by combining both DWT (Discrete Wavelet Transform) and DCT (Discrete Cosine Transform). The result includes combine features of both transformations, so the Watermarking is more Robust than earlier approaches. The Color Image Watermarking is done by selecting one color component from RGB (Red, Green, and Blue) Components of Color Image. The Watermark embeds into any selected component and then again merges with other components. The R (Red) Component plays very important role to the present the color object as well as it is robust to the preserve information associated with it. So, in this research, R (Red) Component is selected to hide Watermark. This approach is more secure because the embedded watermark can only be extract from the Red Component after decomposing Watermarked Image into RGB components, other components (i.e. Blue and Green) does not contain any information about the Watermark.

References

A Robust Color Image Watermarking using Combination of DWT and DCT


Index Terms

- Computer Science
- Image Processing

Keywords

- Digital Image Watermarking; Discrete Cosine Transform (dct); Discrete Wavelet Transform (dwt); Color Image; Rgb Components.