Abstract

In this paper, an improved DCT-based watermarking technique has been presented, which exploits human visual model for adapting the watermark data to local properties of the host image. In order to achieve more robustness and transparency, watermark has been embedded into the middle frequency components of the image. These components are significant in high textural regions so that the visibility of the image would not be affected and the watermark will not be removed by compression. Experimental results are provided to demonstrate that embedded watermarks can be almost fully extracted from the JPEG-compressed images with very high compression ratios and other kind of attacked images.

References


**Index Terms**

Computer Science  
Security
Keywords
Digital Watermarking  Discrete Cosine Transformation  Human Visual System