A Secure and Robust DWT based Digital Image Watermarking Technique

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Abstract

Due to the tremendous growth of internet, the web may produce huge information in digital form. The information may be in the form of numbers, strings, images, and video. If the data to be transmitted are confidential, it is suitable as well for some mischievous users to illegitimately destroy, copy, or change them on the Internet. As a consequence, information security becomes an essential issue. Security and robustness are two important requirements for digital image processing algorithms in applications involving authentication.

In this method, we proposed digital image watermarking technique to improve the PSNR value. Our experimental result showed that method is well suited for unauthorized tempering detection. We used watermarking for secure data transmission and to prevent unauthenticated image access. We applied Discrete Wavelet Transform technique to compress the image with better compression ratio and low processing power. Our method detected the image tempering and data can be transmitted securely over the channel.
References

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Index Terms

Computer Science  Security

Keywords

Digital image, Security, Watermarking, Discrete Wavelet Transform, PSNR, MSE.