Abstract

In this paper, a robust watermarking scheme for digital video sequence which is based on
Entropy concept and Hadamard transformation technique is proposed. The proposed technique
can hide an entire image or pattern as a watermark directly into the original video sequence.
Hadamard transformation is used for converting cover video from spatial domain to transform
domain in order to reduce the computational complexity of the proposed algorithm. Similarly for
preserving the quality of the digital video, the entire video blocks are not altered for embedding.
Instead only few blocks are selected and used based on the size of the watermark and
information content of the video block. Entropy concept is used for selecting those video
blocks. The proposed algorithm is tested with rugby video sequence containing 209 frames and
watermark of size 64x64 using MATLAB software. The experimental results show that the
proposed scheme is robust to random noise addition attacks such as Salt and Pepper,
Gaussian, Poisson and Speckle.

References

A Robust Watermarking Scheme for Digital Video Sequence using Entropy and Hadamard Transformation

computer science 3 (9), 740-746, ISSN, 2007.

Index Terms

Computer Science Multimedia Security

Keywords
Digital Video Watermarking Hadamard Transform Based Watermarking Entropy Based Watermarking Transform Domain Watermarking