

ENHANCING DIGITAL IMAGE SECURITY WITH CYBERNATED WATER MARKING AND CRYPTOGRAPHIC ENCRYPTION

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Abstract. Digital watermarking of interactive media content has become an active experimentation field in recent years. In addition to reviewing some of the methods that have been developed for various media types, a general structure for watermark engrafting and identification is outlined. We highlight a few of these application-oriented differences, including copyright protection, substantiation, tamper identification, and data hiding, as well as the technological and system conditions for different media types such as digital photos, digital files, digital audio, and text. We describe a general structure for digital watermarking-based image copyright protection in this approach. In this paper, we outline the pre-processing and implementation of tide marking technique where the two fish algorithm and double encryption is described. We also specify the image processing toolbox by comparing five different image processing techniques. In addition, the post implementation is carried out with the wavelet toolbox and MATLAB coder to analyze signal, image properties, and generate the efficient code for embedding the text.

Keywords. Watermark, robustness, pixels, security, encryption, preprocessing, MATLAB

1 Introduction

Digital watermarking is a methodology used to imbed information into digital multimedia content such as images, audio, video, and text documents,