

Optimized and Secured Digital Watermarking Using Fuzzy Entropy, Bezier Curve and Visual Cryptography

Authors : R. Rama Kishore, Sunesh

Abstract : Recent development in the usage of internet for different purposes creates a great threat for the copyright protection of the digital images. Digital watermarking can be used to address the problem. This paper presents detailed review of the different watermarking techniques, latest trends in the field of secured, robust and imperceptible watermarking. It also discusses the different optimization techniques used in the field of watermarking in order to improve the robustness and imperceptibility of the method. Different measures are discussed to evaluate the performance of the watermarking algorithm. At the end, this paper proposes a watermarking algorithm using (2, 2) share visual cryptography and Bezier curve based algorithm to improve the security of the watermark. The proposed method uses fractional transformation to improve the robustness of the copyright protection of the method. The algorithm is optimized using fuzzy entropy for better results.

Keywords : digital watermarking, fractional transform, visual cryptography, Bezier curve, fuzzy entropy

Conference Title : ICCVIP 2018 : International Conference on Computer Vision and Image Processing

Conference Location : London, United Kingdom

Conference Dates : March 15-16, 2018