

Anonymous Editing Prevention Technique Using Gradient Method for High-Quality Video

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Abstract : Since the advances in digital imaging technologies have led to development of high quality digital devices, there are a lot of illegal copies of copyrighted video content on the internet. Thus, we propose a high-quality (HQ) video watermarking scheme that can prevent these illegal copies from spreading out. The proposed scheme is applied spatial and temporal gradient methods to improve the fidelity and detection performance. Also, the scheme duplicates the watermark signal temporally to alleviate the signal reduction caused by geometric and signal-processing distortions. Experimental results show that the proposed scheme achieves better performance than previously proposed schemes and it has high fidelity. The proposed scheme can be used in broadcast monitoring or traitor tracking applications which need fast detection process to prevent illegally recorded video content from spreading out.

Keywords : editing prevention technique, gradient method, luminance change, video watermarking

Conference Title : ICCIE 2016 : International Conference on Computer and Information Engineering

Conference Location : San Diego, United States

Conference Dates : January 21-22, 2016