

A Robust Video Watermarking With Digital Design

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Abstract: *Among the widely used watermarking techniques, spread spectrum modulation based method becomes appealing due to its inherent advantage of greater robustness and is used widely for various applications. Some watermarking applications, for example, digital television broadcasting, internet protocol television (IP-TV), etc. essentially demand development of low cost watermark algorithms in order to implement in real-time environment. This paper proposes a block based multiple bit spatial domain spread spectrum image watermarking scheme where a gray scale watermark image is represented by less number of binary digits using novel channel coding and spatial biphas modulation principle. VLSI implementation using Field Programmable Gate Array (FPGA) has been developed for the algorithm and circuit can be integrated into the existing digital still camera framework. The proposed image watermarking algorithm may be applied for authentication as well as secured communication in real-time.*