

VARIOUS TECHNIQUES USING BLOCK BASED SVD IN DIFFERENT COLOUR CHANNELS FOR SECURE, ROBUST AND MORE EFFICIENT VIDEO WATERMARKING

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Abstract

The problem of protection against manipulation and tampering in transmission of digital multimedia documents like text, images, audio and video and claiming the ownership of multimedia documents have been addressed by many scholars . Through watermarking algorithm using block based SVD, the most conventional method used for copyright protection we have handled the problem of false-positive detection and proposed a more robust and efficient method. [14][15]. But the earlier algorithm was susceptible to video attacks like frame averaging and dropping. Hence to improve the robustness the parts of the watermark can be embedded in more than one frame of the video in a pre-decided sequence. This paper shows how the earlier algorithm can be modified and used in different schemes of implementing watermarking [14] [15] which can be used practically in solving the problem of false ownership. These proposed schemes also inherit the advantages from the earlier schemes such as, bigger watermarks and robustness against common attacks.

Keywords: Singular Keywords: Singular value decomposition; Frame averaging; Frame dropping; Digital video watermarking; False ownership detection;