

## A study on multipurpose watermarking techniques for image

### ABSTRACT

Conventional single watermark systems are mainly aimed at accomplishing a single goal, either for forgery detection or image copyright protection. This limitation has resulted in the introduction of multipurpose or otherwise known as multifunction watermarking algorithms, with the prime objective of simultaneously achieving both goals. Research in this domain has attracted tremendous interest in recent years, mainly due to its challenging nature in effectively satisfying both aims without degrading one another. However, most of the recent studies have not indicated a clear distinction between multipurpose and multiple watermarks (or cocktail watermarking) algorithms. This paper differentiates between these two types of digital watermarking systems and focuses on multipurpose watermarking due to its significance. In addition, it presents a state of the art survey on the theories, models, features, and algorithms that have been implemented in designing a multipurpose watermarking algorithm. It highlights the recent trends in related techniques and most reliable results attained, whilst also pointing the possible future research directions that can be investigated.

**Keyword:** Digital Watermarking; Robust Watermark; Fragile Watermark; Multiple watermarks; Multipurpose watermarking system