**AFFINE TRANSFORMATION RESISTANT WATERMARKING BASED ON IMAGE NORMALIZATION**

**ABSTRACT**

Geometric attacks are among the most challenging problems in present day watermarking. Such attacks are very simple to implement yet they can defeat most of the existing watermarking algorithms without causing serious perceptual image distortion. In this paper we propose a new public watermarking algorithm, which is robust to such attacks. This algorithm uses a normalized with respect to affine transformation representation of the image based on the image moments. Then, a CDMA scheme is used to embed a multi-bit watermark in the discrete cosine transform domain of the normalized image. Numerical experiments are shown where the properties of the proposed algorithm are tested. These numerical experiments show that the proposed algorithm is very robust to wide range of geometric attacks.