A ROBUST SEAL IMPRINT VERIFICATION METHOD WITH ROTATION INVARIANCE (WedPmPO4)

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Abstract :

This paper presents a robust seal imprint verification method with rotation invariance. The rotation invariant feature is represented by the absolute value of Fourier coefficients of log−polar image of seal imprint on circles with different radii. Firstly, the feature vector of a seal imprint is defined by the above absolute value of Fourier coefficients of the log−polar image. Secondly, the feature vector is expanded into Karhunen−Loeve (K−L) expansion. Thirdly, seal imprint verification is made by the difference between vectors defined by coefficients in K−L expansion corresponding to true and given seal imprints. Finally, seal imprint verification experiments are given to show the effectiveness of the proposed method.

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