Abstract

This paper proposes an automated system for recognizing palmprints for biometric identification of individuals. Complex Zernike moments are constructed using a set of complex polynomials which form a complete orthogonal basis set defined on the unit disc. Palmprint images are projected onto the basis set resulting in a set of complex signals. The magnitude of the complex value is computed and a scalar value is derived from it by computing the mean of the vector elements. Classification is done by subtracting the test samples from the mean of the training set. The data set consists of 80 images divided into 4 classes. Accuracy obtained is comparable to the best results reported in literature.

References

- Zernike, F., Physica, vol. 1, p. 689, 1934

Index Terms

Computer Science
Pattern Recognition
Keywords
Zernike moment  Palmprint recognition  Texture classification