Abstract

Moments can be viewed as powerful image descriptors that capture global characteristics of an image. The magnitude of the moment coefficients is said to be invariant under geometrical transformations like rotation which makes them suitable for most of the recognition applications. But in practice, the invariance of moment coefficients is compromised due to the errors in computation. This paper presents an empirical study of some popularly used moment functions to find out the robust coefficients under rotation. The selected robust coefficients are used in face recognition under in–plane rotation. Experimental results demonstrate that the performance of the proposed method comes at par with the performance of the traditional method by using lesser number of moment coefficients and thus results in significant saving in the feature extraction time.


- C. Singh and A. Aggarwal, “A noise resistant image matching method using
Empirical Analysis of Rotation Invariance in Moment Coefficients


Index Terms

Computer Science

- Image Processing

Keywords

- Zernike moments
- pseudo-Zernike moments
- Rotation invariance
- Face recognition.