## عنوان مقاله:

Robust Optical Character Recognition under Geometrical Transformations

## محل انتشار:

مجله بین المللی کامپیوتر و فناوری اطلاعات, دوره 2, شماره 1 (سال: 1392)

تعداد صفحات اصل مقاله: 16

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## خلاصه مقاله:

Optical character recognition (OCR) is a very active field for research and development, and has become one of the most successful applications of automatic pattern recognition. Dealing with scaled, translated and rotated characters are some challenging problems nowadays. On the other hand, another important issue is the dealing with high dimension local features of a character. In this paper, a geometrical transform invariant feature extraction is proposed. After this feature extraction, the dimensionality of extracted features is reduced to a very lower dimension space. Employed supervised dimensionality reduction method not only maximizes the between-class distances and minimizes within-class distances simultaneously, but also makes no loss in class separability power. Experimental results show that the accuracy of classification on extracted features is strongly high for translated, scaled and rotated characters. Another experiment result is that a reduction in feature space dimension to M-1, which M is the number of .classes, makes no loss in class separability power

## کلمات کلیدی:

Optical Character Recognition, Geometrical Transform, Feature Extraction, Dimensionality Reduction