Abstract

In character recognition, zoning based feature extraction is one of the most popular methods. The character image is divided into predefined number of zones and a feature is computed from each of these zones. Usually, this feature is based on the pattern (black) pixels contained in that zone. Some of such features are average pixel density, sum squared distance, histogram. But
in such features, say the average pixel density, different combination location of pixels can all
give rise to same average pixel density. This often leads to errors in classification. In this paper,
a new technique is presented where the pattern pixel location is also taken into account to
contribute as much unique feature as possible. The experimental tests, carried out in the field of
Devanagari handwritten numeral and character recognition show that the proposed technique
leads to improvement over the traditional zoning methods..

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**Index Terms**

Computer Science
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**Key words**

Classification feature extraction character

recognition Support Vector Machine