Abstract

In this paper, a zone based symmetric density feature is proposed to recognize Handwritten Marathi Vowels. Recognition of handwritten Marathi vowels is a challenging task due to their interclass structural similarities. This paper describes a method for recognition of handwritten Marathi vowels. Since a standard database does not exist for handwritten Marathi vowels, as a part of this work database of 2294 handwritten Marathi vowels was created. Pre-processing techniques are applied to remove noise and there zone based symmetric density features are extracted. According to the fivefold cross validation technique a maximum of 92.91% recognition rate was achieved. The recognition rates were compared with those achieved by KNN and SVM classifiers.

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Index Terms

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Keywords
Handwritten Marathi Vowel Recognition; OCR; Zoning; symmetric density; Five fold