Abstract

This paper presents approach for the recognition of handwritten Marathi consonants. In order to recognize handwritten Marathi consonants, a database of handwritten Marathi consonants is developed to carry recognition experiments. Problem of handwritten Marathi consonant recognition is simplified using multilevel classification which improves recognition rate. Total 36 Marathi consonants are transformed using instance simplification technique into six sub classes depending on special property of consonants. Suitable features are extracted from different sub classes and further classification is carried out using SVM and k-NN classifiers. We have used database of 7920 characters for testing and found recognition accuracy 78.27% using SVM classifier and 73.29% using k-NN classifier.
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**Index Terms**

Computer Science Image Processing

**Keywords**
Marathi Consonants Multilevel Classification Svm Knn Pattern Recognition.