Abstract

Recognition of Indian languages is a challenging problem. In Optical Character Recognition (OCR), a character or symbol to be recognized can be machine printed or handwritten characters/numerals. Several approaches in the past have been proposed that deal with problem of recognition of numerals/character depending on the type of feature extracted and way of extracting them. In this paper also a recognition system for isolated Handwritten Devanagari Numerals has been proposed. The proposed system is based on the division of sample image into sub-blocks and then in each sub-block Strength of Gradient is accumulated in 8 standard directions in which Gradient Direction is decomposed resulting in a feature vector with dimensionality of 200. Support Vector Machine (SVM) is used for classification. Accuracy of 99.60% has been obtained by using standard dataset provided by ISI (Indian Statistical Institute) Kolkata.

References
Recognition of Devanagari Handwritten Numerals using Gradient Features and SVM


Index Terms
Computer Science Pattern Recognition

Keywords
Devanagari Numerical recognition Handwritten recognition Gradient Gradient Feature Extraction svm