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Kannada HandWritten Character Recognition by Edge Hinge and Edge Distribution Techniques Using Manhatan and Minimum Distance Classifiers

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Abstract : In this paper, we tried to convey fusion and state of art pertaining to SIL character recognition systems. In the first step, the text is preprocessed and normalized to perform the text identification correctly. The second step involves extracting relevant and informative features. The third step implements the classification decision. The three stages which involved are Data acquisition and preprocessing, Feature extraction, and Classification. Here we concentrated on two techniques to obtain features, Feature Extraction & Feature Selection. Edge-hinge distribution is a feature that characterizes the changes in direction of a script stroke in handwritten text. The edge-hinge distribution is extracted by means of a windowpane that is slid over an edge-detected binary handwriting image. Whenever the mid pixel of the window is on, the two edge fragments (i.e. connected sequences of pixels) emerging from this mid pixel are measured. Their directions are measured and stored as pairs. A joint probability distribution is obtained from a large sample of such pairs. Despite continuous effort, handwriting identification remains a challenging issue, due to different approaches use different varieties of features, having different. Therefore, our study will focus on handwriting recognition based on feature selection to simplify features extracting task, optimize classification system complexity, reduce running time and improve the classification accuracy.

Keywords : word segmentation and recognition, character recognition, optical character recognition, hand written character recognition, South Indian languages
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