Abstract

Segmentation of a word into basic characters or strokes is an essential and necessary step for character recognition in many handwritten word recognition systems. The one of the major difficulties in character segmentation is the existence of the skew in the handwritten word. But skew detection in the bangla handwritten word is difficult because of its shape variability of the characters as well as larger number of character classes. If the skew correction is done successfully then the character segmentation of the word will be more perfect and as a consequence the percentage of the correct word recognition will be higher. In this paper, we propose a novel method for skew detection and skew correction of online Bengali handwritten word through holistic approach. This approach works based on center of gravity of left part and right part of a handwritten word. After finding the center of gravity it calculates the angle of the line which connected the two gravity centers in relation to horizontal line. Then Rotates the word clockwise by the angle $\alpha$ if $\alpha \neq 90^\circ$. All the pixel moves to the particular angle to correct the skew. The algorithm has been verified on a database of 3000 Bengali word data collected from different people of different age group and it gives 92.22% accuracy on word data from the proposed system.

Refer
A Novel Approach of Skew Correction for Online Handwritten Words

References


Index Terms

Computer Science

Pattern Recognition

Keywords

Online Handwriting Bangla Skew Recognition