Abstract

This paper presents an automatic detection of handwritten Bengali Broken Characters (BBC) using a feed forward neural network (FFNN). It simulates the Human Visual System (HVS) the way human eye matches the patterns of the broken characters to a meaningful character and identifies it. Here the challenge is to detect and retrieve handwritten character which has been distorted up to 90%. The database consists of fifty bangle characters, each with twenty samples. Each character is presented as an image, which has been preprocessed, segmented and the features are then extracted. A new method has been proposed in this paper. It uses FFNN to calculate the mismatch for the recognition of a character, where it is observed that the
distorted characters show very low mismatch with the original characters. For example, characters up to 70% distortions are found to be retrieved effectively.

References

Automatic Recognition of Handwritten Bengali Broken Characters (BBC): Simulating Human Pattern Matching


**Index Terms**

Computer Science

Pattern Recognition
**Keywords**

Image processing; Neural network; Feature extraction; Distorted Bengali characters