ABSTRACT

«The novel handwritten recognition method for isolated handwritten Bangla digits called the Contour Angular Technique is proposed.»

«The goal of this study is to explore performance differences between two feature methods and two pixel-based methods.»

«The results show that the fast contour angular technique outperforms the other techniques when not very many training examples are used.»

DATASET PREPARATION

«The Bangla digit dataset is composed of 10,920 examples of the numbers 0 to 9.»

«In this experiment, Otsu’s algorithm was the best algorithm to transform a gray image into a binary image without noise.»

EXPERIMENTAL RESULTS & CONCLUSION

«We choose the RBF kernel as a non-linear similarity function in the SVM classifier. The best values of the $C$ and the Gamma $\gamma$ parameters, that were found with grid search, are chosen.»

«We have used 10-fold cross validation to evaluate the results of the handwritten Bangla digit recognition methods.»

«We used the unweighted majority vote method (UMV) to combine the outputs from four different SVM classifiers.»

«We used training set sizes of 10, 20, 30, 40 and 90%, respectively of 10,920 examples in total.»

«CAT outperforms the best pixel-based method when the training dataset is not very large.»

«When the training dataset size increases, the best pixel-based method slightly outperforms CAT.»

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