Abstract

Bank cheques are used not only in our country but also all over the world for financial transactions. Still now Bank cheques are processed manually everyday in both developed and developing countries. The proposed system presents a recognition system of both handwritten courtesy amount and signature. To read the courtesy amount and signature, the system uses the scanned image of Bank cheque. The proposed system divided into several stages that focus on: Image preprocessing; the detection of block of courtesy amount and signature; the post processing; the segmentation of string into characters; Feature extraction of courtesy amount and signature; Neural Network recognition. At first, scanned image is converted into gray image and then it is filtered. Then detection of the courtesy amount and signature is performed using image cropping method. The cropped images are post-processed to ensure
correct recognition. Then courtesy amount is segmented using the segmentation method. The segmentation module has been implemented as a recursive process. Then segmented digit and binary image of signature are passed through the feature extraction process. A rotation, translation, scaling and orientation invariant feature extraction method has been used to extract the features of the input images based on moment feature extraction method. And finally, a back propagation learning algorithm is used to train up the network and tested the performance. Overall success rate of the system is tested in different sorts of numeral and the experimental result shows satisfactory performance.

References


**Index Terms**

Computer Science  
Pattern Recognition

**Keywords**

Bank Check  
Courtesy Amount  
Signature  
Segmentation  
Neural Network  
Recognition.