Abstract

The various studies conducted for classification of handwritten signatures of people have shown that the task is difficult because there is intra personal differences among the signatures of the same person. The signatures of the same person vary with time, age of the person and also because of the emotional state of a person. The task of classifying the skilled forgery signatures is all the more challenging because they are the result of lot of practice, closely imitating the signature. Neural networks based classifiers have proved to yield very accurate results. This paper for offline signature verification uses the images stored in the GPDS database. The preprocessed images are decomposed using discrete wavelet transform up to
the maximum level. The wavelet energy features corresponding to the approximation and detail along with the approximation and detail coefficients make the feature set. A pattern recognition neural network is designed which classifies the inputs based on the target classes.

References

- P. Mautner, V. Matousek, T. Marsalek,"Signature verification based on self-organizing feature maps", university of Bohemia, Czech republic
- Maged M. M. Fahmy,"Online handwritten signature verification system based on
DWT features extraction and neural network classification", Ain Shams Engineering Journal, ISSN 2090-4479, Volume 1, Issue 1, Pages 59-70, September 2010

**Index Terms**

Computer Science

Pattern Recognition

**Keywords**
Wavelets  Principal Component Analysis  Pattern Recognition Neural Network