Abstract

On-line signature verification can be used in real time applications like credit card transactions or resource accesses because of its popularity in regular authentication. In signature verification number of signatures available to train a model is very limited, and therefore identification of the most suitable features which characterize the class is critical. Therefore feature selection is essential to minimize the classification error. The mRMR (minimum Redundancy Maximum Relevance) method is applied to select the features. Verification is based on global features and scores from functional features. The scores are generated by comparing the functional features of the test signature with the corresponding reference features. These scores are treated as additional features in a two-class classification problem solved with the ANN and SVM. Verification accuracy is enhanced by fusion of user specific global and functional features. The methods are tested with the database of SVC2004.

References

- Martens, R. and Claesen, L. 1998. Incorporating local consistency information into the


**Index Terms**

Computer Science  
Security

**Keywords**

Support vector machine  On-line signature verification  Feature selection  mRMR