Abstract

In this paper we are proposed a novel approach to extracting the features from a hand-written off-line signature. The experiments are carried out on a user created data base. We are extracting the geometrical distance-metric features and pruned projection features. The extracted pruned projection features are huge in dimensions, it's difficult to process and analysis. To reduce the feature matrix dimensions without loss of information, existing stereographic reduction algorithm is used. The patterns are classified using the supervised Knn-classifier. FRR (False Rejection Rate) and FAR (False Acceptance Rate) for Identification by proposed approach is 6% and 7%. And that of Verification is 12. 6% and 13 %.

References

- Drouhard, J. P., R. Sabourin, and M. Godbout, "A neural network approach to
  off-line signature verification using directional PDF", Pattern Recognition,
  vol. 29, no. 3,(1996), 415--424.
- "Off-line Signature Verification Using HMM for Random, Simple and
  Skilled Forgeries", Edson J. R. Justino 1, Flávio Bortolozzi 1, Robert Sabourin 1, 21
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  Technologie Supérieure, 1100, rue Notre-Dame Ouest - Montréal (Québec) H3C 1K3 –
  Canada.
- Dubey RB, Sachdeva S. "An Offline Signature Verification Technique";
  001919.
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**Index Terms**

Computer Science  
Security

**Keywords**

- Pruned projection  
- End-points  
- Distance between two end points  
- Angle made at each end point.