Abstract

In this paper, feature level fusion of finger knuckle prints (FKP’s) is implemented. To overcome the curse of dimensionality, feature selection using the triangular norms is proposed. There has been no effort on feature selection using the t-norms in the literature. In this paper we address the problem of feature selection on the finger knuckle print using the t-norms. An unknown parameter in t-norms is learnt using Reinforced Hybrid evolutionary technique. Feature level fusion is performed by combining the significant features of all FKP’s. Results show an improvement in the accuracy when the features are selected by a divergence function derived from the new entropy function using t-norms on two pairs of training features taken at a time. Results of both identification and verification rates show a significant improvement in the performance with feature level fusion.

References


Index Terms

Computer Science

Pattern Recognition

Keywords

Feature selection  feature level fusion  triangular norms  Finger knuckle print.