

## **Partial fingerprint recognition using support vector machine.**

### **Abstract**

In this study, a novel partial fingerprint matching approach that uses global minutiae matching and the support vector machine is presented. Global minutiae-based matching algorithm is used to record the matching pairs and their feature vectors are used to generate a model file which is used for classification. The traditional minutiae-based matching approach is studied as a classification approach by using support vector machine. We used fingerprint verification competition databases for our evaluation. Results from our experiment showed 98.5% of matching is achieved compared to 97.6% obtained using flow network-based approach.

**Keyword:** Partial fingerprint; Minutiae; Classification; SVM.