

Abstract

Signatures are often used to authorise the transfer of funds of millions of people. Bank checks, credit cards and legal documents all require our signatures. But until now most of the checking process is still handled manually, and is hard to determine the type of forgery, such as random forgery, simple forgery, and skilled forgery. A robust system has to be designed to detect various types of forgeries. The system should have an acceptable trade-off between a low false acceptance rate and a low false rejection rate.

In this final project, support vector machine is implemented as a classifier and Gabor filters are used as feature extraction. Then accuracy system in recognizing random forgery, simple forgery and skilled forgery is analysis. It also examine what factors affect the accuracy of support vector machines.

Based on the observations, the verification error rate have achieved the good result, 99% on random forgery, 87.5% on simple forgery and about 87.5% for skilled forgery.

Keywords: *Verification, signature, Skilled forgery, Support vector machine (SVM), Gabor Filter.*