## **Abstract**

Handwritten signature is a unique mark that is owned by everyone. Usually a handwritten signature is used on statement, or in transaction that involves money, like sales transaction or purchase transaction. Therefore handwritten signature forgery will cause loss to the owner of the signature.

In this final task, a system is developed to determine a handwritten signature is a real or a fake. By using Hebbian Learning and Support Vector Machine, the signature featur will be extracted then will be compared by the testing signature to classify the testing signature into real signature or fake signature.

The used data is the handwritten signature that is owned by 5 people where every people will have 1 set of handwritten signature. From the testing phase, it is obtained that the accuration of every set of signature is different. The accuration for every set of handwritten signature is 98,33% for signature set 1, 94,17% for signature set 2, 97,5% for signature set 3, 80% for signature set 4, and the last 85,83% for signature set 5.

**Keyword**: Hebbian Learning, Support Vector Machine, handwritten signature