

## **Abstract**

**Theft is one of the crimes that often occurs because of the weak level of key security. The door has a high priority that needs to be really considered because it is an access to get in and out. In overcoming the security needed a system that can improve security in terms of locking the door. As biometrics technology develops, it becomes very popular because it relies on the physical characteristics of each individual so that it is expected to be identical with the owner of the original identity. In this Final Project a security door will be built which can do two step verification using fingerprint and face lock with Naïve Bayes method. The system will be built using Arduino Uno with components including DY50 fingerprint scanner, webcam, solenoid lock, 1 channel relay, power supply adapter, server. The tools used are using Vb.Net and MySQL as database storage. Naïve Bayes performance has the ability to predict the accuracy of a prediction when applied to a database with large data so that a high accuracy and speed value is obtained. Then the results obtained by using the Naïve Bayes method can determine the output data to access the security system using two step verification or only using a fingerprint.**

**Keywords : smartlock, two step verification, fingerprint, face, naïve bayes.**