

CHAPTER 3

RESEARCH METHODOLOGY

1. Literature Study

This process is Collecting and reading journals that related to signature verification projects with various methods. All this journals as a references for the projects and programs.

2. Collecting Sample Images.

This project use 150 original signature samples from 15 respondents for data training, and then 150 original signatures from 15 (same) respondents. The fake signatures were taken from other 15 respondents who imitating the original signature samples. The images will be scan using scanner. All the samples start from RGB image and then convert to Gray scale and Binary before process the entropy.

3. Implementation with programs.

Making code program for converting signature images from RGB to Gray scale and then into Binary Image. Then make program for calculating the entropy value from each signature images. This program use a python programming language for applying the pre processing and calculation of entropy.

4. Testing

Test the system with existing data. This project uses 375 signature samples. After the programs is complete, the smple signatures will be tested into the program. There are 3 kinds of testing. First is testing the training data, second is testing the test data, and last is tenting the fake signatures samples.

5. Analyze

Compared the training test results and data test results and analyze the results of fake signatures sample. Then make the conclusion.