CHAPTER VI
CONCLUSION

6.1. Conclusion

Fingerprint processing implements ten algorithms to generate fingerprint template and one algorithm for identification. These ten processing algorithms divided into three major processes. First, preprocessing applied to image to enhance the the ridge structures. Next is feature extraction, this step extracts minutia points and reference point. All detected features will then used to construct minutia hash as fingerprint template. Identification process done by applying matching algorithm to get maximum matching score.

From three major processes of fingerprint recognition, Hashing can be said as the successful one. The preprocessing phase was failed to implement Gabor filter, this was because the lack of references and knowledge about this algorithm. At the end, preprocessing phase only execute segmentation and thresholding process.

Feature Extraction phase also failed at extracting reference point. The result of algorithm implementation was always a false reference point. This failure led to a bad identification result. It was because the absence of true reference point that should be the hash root.

6.2. Further Research

Algorithm implementation in this research still not working perfectly. The implementation of Gabor filter and reference point detection not was not giving expected result. To solve this problem, next research can implement another algorithm to replace algorithm in this research. For example, Gabor filter can be replaced with Short-Time Fourier Transform and Orientation Consistency for reference point detection can be replaced with Field Reliability.