

CHAPTER 1 INTRODUCTION

1.1 Background

Nowadays, fingerprints were used a lot in several things as an identity due to identity in the form of property does not rule out the possibility of imitation or loss. With the advance technologies that is available nowadays, fingerprints become one of the way to verify identity. Every human being have unique pattern of fingerprints so every person on this earth have different fingerprint patterns. Those difference lead to the existence of many types of fingerprints. So, the aim of this research is to groups those types of fingerprints based on the patterns.

Currently, Euclidean distance is used as the basis of the various kinds of processing on the data. In this research, this Euclidean distance is used to groups the fingerprints image. If the results from the test image is close to the reference image then the result is correct, however if the results from the test image is far from the reference image then the result is false.

The results from this project is that the fingerprints can be put into grouping based on their pattern. Fingerprint image based on the type of the data / type of the pattern in general are grouped into 4 groups and the result from those groupings get an accuracy value through 2 ways which are scanner and stamps.

1.2 Problem Formulation

1. Are the fingerprints can be classified / grouped based on their patterns?
2. Which fingerprint image can be identified better? The one that use the scanner or stamps?

1.3 Scope

The scope limit of this research are making the groupings of the fingerprint image based on their pattern and knowing the comparison results of the accuracy value in the one that is using scanner and the other that use stamps.

1.4 Objective

Generate a program that can ease the process of identity recognition and try to compare the 2 ways above (using of scanner and stamps) to determine which fingerprint image can be identified better.

