CHAPTER I

INTRODUCTION

1.1 Background

The technology of delivery information can be developed through a variety of forms, which one is from pictures. In the digital age, image is referred to a digital image. A digital image is a two-dimensional image that consists of the elements with the x and y axes where each element is called a pixel and reflect the states degrees. Digital image processing generally include the following 3 things, first fix the quality of an image so obtained a better image, second, process and pull the information in order to identify the object as a one of them with the method of pattern recognition and third reduction or compression the process data on the image with the purpose of data storage, data transmission and data processing time.

A signature is a proof of identity of the person which is written and used for the process of verification and authentication credentials. The important thing of the existence of the signature because it can show the validity of a document due to the presence of a signature in it, so that means that person is knowing and tied in the document.

This project intends to recognize signature by image processing using statistical correlation coefficient. This uses pixel values as statistical data. The recognition process will be done through two stages. First is image preprocessing and the second is identification process. Image preprocessing is the process of getting imagery of signature image so it is easier to be used in application program.

1.2 Scope

Limits on the working of this project is

1. The image was used is the digital image that contain digital signature that was already scanned with the scanning or printing machine.
2. The process of the image processing is preprocessing image and identification image.
3. Digital Image which became the center of an object in the form is an signature.

1.3 Objective

The objectives to be achieved from the project is

1. To recognize the characteristics of digital signature.
2. To improve the quality of the images by preprocessing and identify the signature image with statistical correlation coefficient methods.
3. To create software that can recognize the level of similarity based on correlation coefficient.