

ABSTRACT

Handwriting is essentially a manifestation of the conscious mind and the human subconscious that displays an overview of a person's basic character. Therefore handwriting is a measure of personality that cannot be deceived. In 1872 Jean Hyppolyte Michon pioneered the theory to analyze a person's character or disposition through handwriting known as Graphology.

Handwriting analysis can be used for specific purposes, for example, used for the purposes of employees recruitment, business, determine the potential spouse, the purposes of counseling, therapy and others. Even in developed countries handwriting analysis has been used for the selection of CEO candidates and law evidentiary (Forensic Graphology) Some even believe grapho-test is more accurate than lie-detector. In this project an application program is made to recognize the size of the letters in handwriting as reference assessment of individual characters as graphology analysis reference material based on digital image processing. The tests conducted on the system performance include letter separation methods comparisons, the accuracy of system output against manual measurement, as well as the accuracy of the system against the effects of various types of noise with different variances.

From the test results obtained using the method of separation that letter which is a combination of labeling and segmentation has the highest accuracy with a value of 90.4% for uppercase letters and 93.92% for lowercase letters. As for the influence of noise, the level of accuracy varies depending on the type of noise and the variance given.

Keywords: *Graphology, Digital Image, rule-based system*