Abstract

Currently there are many developing individual identity recognition systems and some of these recognition systems are used for security, because security systems that implement biometric methods are much more reliable than conventional methods. Biometric is the science that developed to identify individuals based on their physical, chemical, or habitual characteristics. Biometric methods have advantages because the characteristics of each individual unique and can not be imitated by other individuals. Fingerprint is the most commonly used identity to identify and verify individuals. The advantages of fingerprint is the unique combination of valley and ridge patterns of each individual that makes it an identity to differentiate between individuals. In this final project research, a fingerprint identification system was developed using Correlation-based and Minutiae-based methods. The result of system build combined method of Correlation-based and Minutiae-based have lower accuracy when compared to system that using Minutiae-based and Euclidean distance during matching proses. This is due to the lack of matching of Minutiae-based characteristic extraction method with the Correlation-based matching method.

Keywords: Biometric, Fingerprint, Correlation-based, Minutiae-based, Euclidean distance