ABSTRACT

Based characteristics or signs of someone , then that person can be identified . Techniques Biometrikmerupakan one technique that can identify a person based on a physiological one and characteristics . An assortment of biometric techniques are used to prove one's identity . Many systems use some kind of user identity such as laptop computers , ATMs and Mobile . Other biometric techniques are often used for a person's identity is iris recognition scan, voice recognition , facial recognition and hand geometry .

In this thesis aims to implement a method to recognize an image so it can be properly verified by the computer by utilizing a variety of theories as to how to make Proccessing Image software as hand geometry biometrics verification systems , and hardware as the output of the receiving system software verification and translates as access to open and lock the door . The results of testing the system will then be saved to a database , which will demonstrate that the introduction of the hand structure can be considered for biometric purposes . Expected success in this thesis is more than 90 % .

Implementation results using the K-Nearest Neighbor method as a method of hand image recognition for access control doors. From the results of the testing and analysis concluded that the value of K=1 and type classification Cityblock distance has the highest accuracy is 94.44%. While the worst accuracy is the value of K=9 with the type of classification is 70.83% Cityblock distance. So the value of the K factor and type classification is very influential in determining the performance of the system in performing the detection.

Keywords : Biometrics , Image Processing , Introduction to Hand Structure , Atmega8535