ABSTRACT

Fingerprint clasification is one of many biometric method that's already popular in this day and can be seen on various gadget like smartphone and laptop, that used to be a protection for users so that the system can be used by the authorized people only. Fingerprint is also used for id card printing so fingerprint owner identity can be saved in database, that used for identification someone who might be involved in crime or to identify someone that had an accident, so make the identification difficult. The quality of fingerprint image is effected fingerprint identification process. For image quality on 12*12 blocks there were 1 or 2 ridges, 16*16 blocks there were 2 or 3 ridges, 24*24 blocks there were 3 or 4 ridges, from that result we can conclude more good the image quality will make more ridges can be read by system and make the accuracy increased. There is some method to do fingerprint clasification like *pattern, minutiae, wavelet* and much more. This final task will used fingerprint identification *minutiae* method, method feature extraction *Crossing Number* and *Corelation matching*. From the result in this experiment based on image resolution, window size, and *minimum distance, the result is* mean persentage of *FAR* smallest 25% and biggest 85%, persentage *FRR* smallest 0% and biggest 50%, persentage Matching Score smallest 47,95% and biggest 63,80%, with run time program smallest 8,20 s and biggest 20,24 s.

Keywords: fingerprint clasification, minutiae, crossing number, extraction, matching, spurious