

AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM DENGAN TEKNIK MINUTIAE-BASED

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Abstract

The one known fingerprint recognition system is Automated Fingerprint Identification System (AFIS). AFIS's input is fingerprint and the output is people identity that has it. The last module from identification process is fingerprint matching. The one method has many used is minutiae based, because it has high accuracy and fast computational time. This system consist 2 main processes, such as registration and identification. The first at each process is did preprocessing which consist of segmentation, low pass filtering, local equalization and binarization. Than, do ridge thinning and minutiae detection. After that, at registration process minutiae data saved in database and at identification process minutiae are compared with all of data in database. The result shows that, the minutiae numbers are not consistent, and the system has accuracy 88.00% with standard deviation 17.25%. It's happen because image characteristic is deferent each other, false minutiae detection, and minutiae position has changed.

Keywords: fingerprint, AFIS, Minutiae-based

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