

ABSTRACT

Technology of fingerprint recognition system is one of the most popular identification technology this day. This is due to fingerprint can distinguish every human, because every human has different fingerprint pattern. This technology is equipped with sensor that can take human fingerprint pattern. The fingerprint image is then processed in fingerprint recognition system to be matched with the data in the database.

In this final project applied feature extraction method Contourlet Transform. The results of feature extraction that has been processed then will be stored in the database. The image then classified using the K - Nearest Neighbor (KNN).

From the system examination with many analysis of changes in the system parameters, the result is fingerprint recognition system with Contourlet Transform and KNN classification obtain 96,66% accuracy. The parameters used in this system are subband 2,3,4, Burt pyramidal filter, 9-7 directional filter, k value = 1 and cityblock distance. Processing time in fingerprint recognition system is also very short, which is below one second.

Keyword : Fingerprint, Contourlet Transform , K Nearest Neighbor