

ABSTRACT

Biometric system is robust authentication methods and are always attached as an individual based on physiological characteristics. Technological development requires a better security system and slowly began to leave the conventional way in the acquisition of rights of access, with username and password. One of biometric object is the biometrical geometry palm or palm print. Various methods proposed to obtain the reliable palm print identification, because palm print has longest time decomposed after tooth as biometrics object.

Competitive Hand Valley Detection is a method to get the region of interest (ROI), such as the center of palm which has information of the feature. Local Binary Pattern method is to analyze and describe the texture of the palm print contained in the ROI. Feature matching using *k-Nearest Neighbour*.

The research conducted using a maximum of 30 individuals and a minimal of 10 individuals consists of 3 training data test and 7 data test for each individual, normalization size 150x150 pixels, using median filter with 3 and k coefficient of 1 at matching with K-Nearest Neighbour, achieving 84,76% accuracy to 30 individuals.

Keywords: *biometric systems, palms identification, Competitive Hand Valley Detection, Local Binary Pattern, K-Nearest Neighbour.*