ABSTRACT

The presence system in IT Telkom has some weakness, beside its process still manual, it is by giving a signature in presence list, this system is also easy for being falsified. Students who don't come in the class can ask other students to give a signature in their presence list. That's why, new presence system is needed to solve this problem.

Real time presence system using palm print will be designed in this final project. The uniqueness of palm print make this system better because it impossible for being falsified.

The process in this system is capturing image, preprocessing, feature extraction, classification and database processing. To make the process easier, the image is taken in a box. The preprocessing are converting image to grayscale format, contrast stretching and reducing noise with median filter. Wavelet Transform is used for feature extraction and K-Nearest Neighbor (KNN) for classification.

Real time presence system using palm print based on KNN can be good system for real time presence system by giving best performance in 67.5 % for accuracy and 1.71 second for processing time. This performance is reached when k value is 1 with the number of database is 16.

Key words : Palm print, K-Nearest Neighbor (KNN), presence, realtime