ABSTRACT

Narcotics are drugs derived from plants or not plants that can make users can eliminate pain, change consciousness and can cause difficulties for the wearer. Because the spread of narcotics cannot be prevented, it, therefore, encourages writers to make a distribution system for drugs containing narcotics, not in today's society.

In the proposed proposal a system was developed to provide drugs sold in communities containing narcotics or not using digital image. The process is done by taking images of narcotics using the Gabor Wavelet Filter. The classification process uses the K-Nearest Neighbor. The imaging results that have been preprocessed are then extracted with features with the Gabor Wavelet filter. Gabor filter is an algorithm that can extract properties because it can minimize unnecessary properties. Then K-Nearest Neighbor classifies the image. the results to be obtained are a Matlab-based application for approval and classification.

The results obtained in the final task are MATLAB-based applications that can process narcotic imagery to detect the type of narcotic substance. The performance generated from the system is 85% accuracy and compute the time of 7.50 seconds. Accuracy is obtained from testing 100 images using the Filter method of Wavelet with the details of the parameters used are size 256×256, wavelength = 2, orientation = 45 ° and for parameters on the KNN using Cityblock distance with the value $K = 9$.

Keywords : Narcotics, Sabu, Gabor Wavelet Filter, K-Nearest Neighbor.