

ABSTRACT

Iridologi is an alternative treatment technique that believe that patterns, colors, and other characteristics of the iris can be examined for known information about the health of patients. Disruption of certain organs can be recognized by looking at the special features contained on a person's iris. However, these observations can only be done by experts, so that people can be difficult to do so. Therefore, we need a system that can help the general public in identifying early abnormalities organism, so it can be used as a preventative measure.

In this Final Project, built a system that helps to detect and determine which body part impaired. Iris image to the left and right are used as input of the system. Then, from the iris image, certain characteristics can be obtained by using the Grey Level Co-occurrence Matrix (GLCM). Characteristic texture that can be raised by the GLCM, among others, the mean, standard deviation, contrast, homogeneity, energy, entropy, correlation. Texture characteristics obtained and then used as the basis of the calculation method of classification using KNN.

In this study, the detection of the condition of the organ was designed through the stages of image acquisition, grayscale, segmentation, feature extraction, and classification. Input system is left and right of iris that has been identified. While an organ that can be detected in this system covers only organ pancreas, left kidney and right kidney. The best recognition rate system for organ pancreas amounted to 57.69%, to 92.31% for right kidney and left kidney at 83.33%

Key words: Iridology, Grey Level Co-Occurrence Matrix (GLCM), K-Nearest Neighbors (KNN)