ABSTRACK

The face is a part of the human body that is focused in social interaction, on the face can also refer to a person's identity. In relation to security. Therefore, it is very efficient to be able to recognize a person's facial posture or facial features. To recognize and detect a person requires image processing in the form of facial features on the eyes.

In this final project test, a facial image detection system process was built on detection using image processing. In related research using image processing in the form of RGB values, lighting and distance influenced the study using the KNN (K-Nearest Neighbor) Algorithm. The haar cascade classifier method has a very precise computation because it depends on the number of pixels.

The purpose of making this tool is to be able to recognize the detected faces. In each class with a face object, the use of the value K in KNN (K-Nearest Neighbor) is used. In the Cascade Classifier haar method, the detection of face objects involves model formulas obtained from scenarios. With this test, an average accuracy of 85% was obtained, the lowest accuracy of 80%. For the highest precision of 93%, and for the lowest precision of 66%.

Keywords: *Python, Haar Cascade Classifire, KNeighborsNeighbor, RGB image processing.*