

## ABSTRACT

The introduction of a person's face is a thing easily done by humans. But not so for a machine or computer is not equipped with intelligent systems. The constraints that exist in previous research include image capture conditions that are still offline. The image obtained is strongly influenced by factors such as room light intensity and direction of light sources.

In this study of human face recognition system is designed to recognize faces of people who form a digital image of both offline and online / realtime. The introduction of offline is done by using the image that has been stored in a file, whereas online recognition is done directly on shortly after taking the image. Face recognition system will be designed in such a way that the intensity of light on the object will always be the same.

Face recognition system includes several processing stages namely pre-processing, feature extraction, classification and decision. Input is required on this application is a form of facial images with the same size and resolution. The output of this application is to be the closest class of the face that wants to be recognized. This application is created using MATLAB a powerful and easy-in mathematical calculations and working in the concept matrix. Accuracy is obtained by comparing the input image and the image of train at 80,67%

**Keywords:** face recognition, webcam, matlab, image, real time.