ABSTRACT

Biometric technology for security that develops today such as fingerprint recognition, recognition of the retina of the eye and so on requires that one position the body in a position that is in accordance with the position of the camera that makes this technology seem stiff. For that an identification sistem *that is more flexible and automatic that can prevent theft. In this* sistem *a security* sistem *is designed for entrance access using Raspberry Pi based face recognition. Raspberry Pi is a single-decked computer capable of performing tasks like a computer, capable of processing images with fast response. For Face recognition using the Fisherface Method There are 4 main steps in this method, Face Detection, PCA (Principal Component Analysis), FLD calculation (Fisher's Linear Discriminant), and classification. In the face detection module, color segmentation is done to get a part of the input image that has skin color, then matching the image to the database. Used as relay regulator Solenoid Door Lock and Buzzer to signal. With face matching using the Principal Component method Analysis of the success rate of face recognition is 85%*

Keywords: Raspberry Pi 3 B +, Solenoid Door Lock, Fisherface, Principal Component Analysis, Web Cam, Relay, Buzzer