ABSTRACT

System Identification is a very important system which applied in society, this system not infrequently applied to a field which has confidential and personal data concerning a person, such as security systems, absences and other. There are many methods that can be applied to system identification, one of them uses the face. System identification which based face recognition is an alternative system that has recently begun to be used in *identification system. This system works by taking the characteristics of an image that will be compared with the characteristics of the image that has been stored in the database. The problem that appears in face recognition that is how accurate system can recognice an image.*

In this final paper, the accuracy problem of recognition will be tested by comparing the result in various conditions. Face recognition systems in this paper based on Principal Component Analysis algorithm. This algorithm serves as an image characteristic extractor which added into system.

Characteristic of the image are compared using Euclidean Distance method, the aim of this process to find out how similar characteristic-characteristics which compared by system. Based on the overall system test which has been done, this facial recognition system has a fairly good level of accuracy. Imprecision of this system due to light intensity and position of the face were tested had different to the face position that had been stored in database.

Keyword: *face recognition, image processing, PCA.*