ABSTRACT

The facial recognition system is a field of research that can help identify a person for either a security system or a search system because faces are unique to each individual. The development of a human face recognition model requires several main components such as scale, light, and expression. This study aims to collect accurate samples of Indonesian faces for face detection algorithms. Determining these facial features is a challenge in itself to identify Indonesian faces because Indonesia consists of various tribes, where the classification of tribes in Indonesia consists of Malay and non-Malay tribes. Therefore, this study uses an in-house dataset of Indonesian people's faces which will be tested using the FaceNet and ArcFace algorithm. The results of this study indicate that high accuracy is obtained even when using simple devices. The benefit of this research is that using the in-house method used by researchers can improve the accuracy test results and give the best algorithm that can resulting the best accuracy and the shortest training time.

*Keywords—. **Face recognition system, accuracy detection, face detection, in-house dataset***