



**PROJECT REPORT
FACE RECOGNITION USING MTCNN, AND EYE DISTANCE.**

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ABSTRACT

The use of face recognition is often encountered in everyday life. and we need to know if there are many methods or models for doing face recognition, one of which is by utilizing MTCNN. where MTCNN is used as a basis for being able to detect faces by displaying five landmarks from an image, which of these landmarks we will calculate the distance between the right eye and left eye where the results of these calculations we make as one of the points of uniqueness to be able to recognize faces. The use of MTCNN as a detector because it has good performance and accuracy, especially being able to detect images or poses of faces that are less proportional. The results of the study produced accuracy that was not so good when testing 110 images, only 30 images were detected or about 27% of the accuracy obtained. This can occur because the distance value owned by other data is almost the same, image quality, position and facial expressions that can affect accuracy. and in experiments using four datasets with different numbers of images can produce stable accuracy but the time required is very long, around 9 to 11 minutes. The use of eye distance as a feature to recognize faces is still not optimal and needs development in the future. The study also used the Haar Cascade algorithm as a comparison. Where a higher but unstable accuracy value is obtained, the amount of data also does not affect the accuracy obtained. And it takes a lot of research and development to determine eye distance.

Keyword: Face Detection, Face Recognition, CNN, Deep Learning, MTCNN

