ABSTRACT

When talking about a technological development, there will be a lot of technological inventions that can simplify the day to day activities. Even among the many technologies today's that gives instant results. Such as Face Recognition that can provide identification results from the owner of the detected face.

But there are many problems that will be experienced when want to do this Face Recognition activity. Where the problem is often faced when the system does not detect a face. This will often be experienced when doing Face Recognition at night or lighting conditions are lacking, so the system can not detect a face.

With the existing problems, it takes a solution that can give better results. So the activities in doing Face Recognition get better results. And in this Final Project will be built a python-based Face Recognition application using Local Binary Pattern (LBP) method, and also with Image Enhanchement, Image Enhancement to be used in this final project is Local Enhancement method, Histogram Equalization and Contrast Limited Adaptive Histogram Equalization. Images obtained during the night or in low light conditions will be processed first using Image Enhancement, so that the face to be identified will be easier (improving the accuracy).

The integration of the Face Recognition process with Image Enhancement will increase accuracy by an average of 49.15%, which is greater than the accuracy level before Image Enhancement is 0%.

Keyword : *Local Binary Pattern (LBP), Image Enhanchement, Face Recognition, Local Enhancement (LE), Histogram Equalization (HE), Contrast Limited Adaptive Histogram Equalization (CL) Night Periode*