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## ABSTRACT

Image as one of the multimedia component hold very important role to provide information in visual form. But too often the image that is severely degraded. The limited ability of the camera captures the object in detail can reduce the information given by that image. In addition to the limitations of the camera, from the user also can reduce the value of the captured image due to lack of knowledge or controlled photography techniques for using the camera. In certain circumstances, re-image retrieval can not be done. Because it is in need of a system that can be used to improve the quality of the image becomes more natural. Natural light conditions mentioned here that the image of the object or a situation close to the truth.

At this final project aims to improve the quality of the image becomes more natural. Image with a dark intensity of illumination will be processed to produce a brighter image, and vice versa so as to produce a natural image. The method used is the algorithm of Color Image Enhancement Natural or NECI by the method of comparison is histogram equalization technique. NECI image processing algorithms are explained by using the Global Adaptive Tone Mapping sertra perform image processing in the dark by using Adaptive Histogram.

The results of image enhancement algorithms NECI is better than using a histogram equalization technique. It is seen from the value generated by the algorithm Luminance NECI closer to a good standard for a given image. Apart from the Luminance value, it is also evidenced by a correspondent for 50 Mos. Of the 30 test images made available comparison Mos 4: 2.9 with advanced algorithms to NECI.

**Key words :** *Natural Enhancement of Color Image, Global Adaptive Tone Mapping, Adaptive Histogram, Histogram equalization.*