IDENTIFY THE QUALITIES OF NONI (*MORINDA CITRIFOLIA*) IS BASED ON THE COLOR AND TEXTURE USING GABOR WAVELET METHOD

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ABSTRACT

Nowdays, information technology is going rapidly. There are many studies that resulted in several applications in the field of identifying an object image. Image processing is one type of technology that can be used to solve the problem of image processing. Applications in digital image is also experiencing growth in terms of both identifying plants, fruit, leaves and the other based on certain characteristics. At this final project will be implemented in a system that will identify the qualities of noni (*Morinda citrifolia*) is based on the color and texture. Color selection is done by calculating a simple statistic, which is looking for a simple statistical average value of the total number of pixels. While the selection of textures using *Gabor Wavelet Method. Square Euclidean* is a classification that perform location based proximity (distance) of the data with other data. The system created using the application Matlab program R2014a. Experiments were done using noni (*Morinda citrifolia*) images that have dimensions of 448 x 320 *pixels* (with a similar background) as much as 80 images. From the test results yield 98,8 % based on the color corresponding to the condition (color), while for phase identification (texture) with *Gabor Wavelet Method* resulted in 92,5 %.

Keywords: *Image Processing, Qualities of Noni (Morinda Citrifolia), Gabor Wavelet Method*