Abstract

The treatment of post-harvesting period in Indonesian agriculture is still considered not in optimal condition. In order to produce good quality crops, post-harvesting period is considered as an important step. One of basic thing in post-harvesting period is product quality measurement. Measurement is held in terms of measuring the size of crops in direct way.

In this bachelor thesis, software is designed and developed. This software could obtain visual parameters of carrots such as: image area, diameter, and its length. By using parametric correlation method, it is possible to increase the correlation between those visual parameters with direct measurement parameter results that could be recognized. In other word, direct measurement parameter results, such as: weight, volume, length and diameter could be predicted from the carrots' visual parameters.

Testing results reflect that those three visual parameters obtained in its current threshold, could show a very strong correlation point, ranging from 0.900-1.000. Then, by using parametric correlation method, carrots classification success rate obtained reach 98.88%.

Keyword: post harvesting, quality measurement, visual parameter, direct measurement result, parametric correlation.