Grouping Citrus Fruit (Citrus Reticulata/Nobilis L) by Colour and Size Using K-means Clustering Methods

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ABSTRACT

In the case of a daily life – today where farmers, especially farmers fruit garden harvest any fruit would choose that are in accordance with the category ripe for harvesting. In the case that is based on a selection of fruit that is devoted to the fruit tangerines where in pemilihanya can not all be as you wish. Grouping tangerine fruit using tangerine types of citrus fruits (citrus reticulata / nobilis l) and then will be picked tangerines image from the side and from the top of the fruit is used as input

This grouping tangerine fruit by color and size using the k-means clustering, the k-means clustering method that great sense as a cluster method that uses two values that are considered to be a acauan to determine the number of clusters to be created. In this research will be sought max and min values of the color and size of the total. Disive a method of k-means clustering which also seek distance nearest value between the cluster and also in the search for the value of color and size to determine the total number - average of the value of red, green, and blue while the value of its own size by counting the number of pixels in the object image capture object images taken using the method tresholding in order to distinguish between objects with background. Number of clusters of orange that has been determined there are three parts that mature clusters, cluster half cooked, raw cluster.

Keywords*: Color Feature Extraction, Feature Extraction Forms, K-Means Clustering*