

ABSTRAC

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PEMBUATAN APLIKASI GUI KLASIFIKASI KEMATANGAN BUAH RAMBUTAN DENGAN SEGMENTASI WARNA MENGGUNAKAN METODE K-NEAREST NEIGHBOR (K-NN)

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(xiii + 71 + attachment)

Rambutan nyonya is a hairy fruit, the taste of the fruit is sweet to sour, and the texture is soft and smooth. This research is useful for creating a GUI application to classify the ripeness of rambutan neath fruit using the K-Nearest Neighbor (K-NN) method. This research aims to produce the best level of validation accuracy from the results of the K-NN model training process and classify the ripeness of ripe, rotten or ripe neath fruit. So that farmers can be more efficient and effective in sorting rambutan fruit and it is hoped that they can overcome problems that arise due to manual processes that are time consuming and prone to human error. This research stage includes the stages of Data Collection, Analysis, Design, Implementation and Testing. Based on the research results, classification of ripeness of rambutan neath fruit using the K-Nearest Neighbor (K-NN) method has been successfully carried out with the MatLab application. The K-Nearest Neighbor (K-NN) algorithm applied includes color segmentation and calculation of RGB and HSI values, resulting in an accuracy of 96.7%.

Bibiliography (2020-2024)