

## **ABSTRAK**

**Application Of The *K-Nearest Neighbor* Method For Quality Classification Of Long Bean Seeds (*Vigna Sinensis L.*)** (Application Of The *K-Nearest Neighbor* Method For Quality Classification Of Long Bean Seeds (*Vigna Sinensis L.*)).

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## **ABSTRACT**

*Based on the research results, a quality classification program for long bean seeds based on texture extraction has been developed. Meanwhile, texture based feature extraction uses the GLCM (Gray Level Co-occurrence Matrix) feature values, namely ASM (Angular Second Moment), Correlation, and Entopy with an angle of 0 °, 45 °, 90 ° and 135 °. The classification testing process uses the KNN (K-Nearest Neighbor) method with 240 training data and 60 test data for three classes, namely high quality, medium quality, and low quality black long bean seeds. Results of the percentage accuracy of the K-Nearest method Neighbor (KNN) is able to classify the quality of black long bean seeds. The value of the closest neighbor (k), which is 66, can identify the system with an accuracy level of 66.667%.*

**Keyword:** *Digital Image Processing, K-Nearest Neighbor, Gray Level Co-Occurrence Matrix, long beans*