Analisis *Performance K-Nearest Neighbor* Untuk Pengenalan *Popular Fruits*

Introduction to Popular Fruits for Early Childhood Using K-Nearest Neighbor

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ABSTRACT

Early childhood is the first stage where children develop cognitive values. At this stage, young children are unable to differentiate between what is good and what is bad for them. To enhance cognitive values, flashcards are commonly used, but children often dislike this learning method. Therefore, a popular fruit recognition system for early childhood using K-nearest neighbor was created. The methodology employed in this research is K-nearest neighbor with color and shape features (morphology). The results of the popular fruit recognition system for early childhood using the K-Nearest Neighbor method, with 994 data points varied for training and testing data, yielded accuracy values as presented in Table 4.4. The highest accuracy value obtained was 94,84% with a data variation of 80:20 (training data - testing data) and a value of k=5.

keywords: K-Nearest Neighbor, popular fruits, digital image processing, color features, shape features (morphology),