**Link:**

<https://www.academia.edu/download/100064870/Multi-Features-based-Fruit-Classification-Using-different-Classifiers.pdf>

**Tittle:** multi Features based Fruit Classification Using different Classifiers

**summary:** The paper investigates fruit [classification](https://en.wikipedia.org/?curid=232426) using different [classifiers](https://en.wikipedia.org/?curid=1508543) and feature extraction methods. It emphasizes the [nutritional benefits](https://en.wikipedia.org/?curid=6173994) of fruits and the significance of classifying them for various applications. The study employs a [dataset](https://en.wikipedia.org/?curid=8495) of 5000 fruit images and constructs three [feature vectors](https://en.wikipedia.org/?curid=1299404) for [classification](https://en.wikipedia.org/?curid=232426): color\_moment, shape-based, and a combined feature vector. SVM, [MLP](https://en.wikipedia.org/?curid=438910), and RF [classifiers](https://en.wikipedia.org/?curid=1508543) are then used for the [classification](https://en.wikipedia.org/?curid=232426) process. The experimental results indicate that the combined feature vector with the RF classifier achieved the highest recognition accuracy of 99.98%. The paper highlights the importance of feature hybridization in capturing [class dissimilarity](https://en.wikipedia.org/?curid=44632934) and demonstrates the efficacy of combining multiple [classifiers](https://en.wikipedia.org/?curid=1508543) for fruit [classification](https://en.wikipedia.org/?curid=232426). Overall, the research aims to provide a practical approach for automatic fruit [classification](https://en.wikipedia.org/?curid=232426) based on color and shape features. The findings suggest the potential for further exploration of deep learning techniques for fruit [classification](https://en.wikipedia.org/?curid=232426). The study offers a comprehensive overview of various [classification](https://en.wikipedia.org/?curid=232426) methods, feature extraction processes, and key findings from the experimental results, contributing to the field of fruit image recognition and [classification](https://en.wikipedia.org/?curid=232426).