

## **A Review: Detection and Classification Defects on Banana and Apples by Computer Vision**

**Authors :** Zahow Muoftah

**Abstract :** Traditional manual visual grading of fruits has been one of the agricultural industry's major challenges due to its laborious nature as well as inconsistency in the inspection and classification process. The main requirements for computer vision and visual processing are some effective techniques for identifying defects and estimating defect areas. Automated defect detection using computer vision and machine learning has emerged as a promising area of research with a high and direct impact on the visual inspection domain. Grading, sorting, and disease detection are important factors in determining the quality of fruits after harvest. Many studies have used computer vision to evaluate the quality level of fruits during post-harvest. Many studies have used computer vision to evaluate the quality level of fruits during post-harvest. Many studies have been conducted to identify diseases and pests that affect the fruits of agricultural crops. However, most previous studies concentrated solely on the diagnosis of a lesion or disease. This study focused on a comprehensive study to identify pests and diseases of apple and banana fruits using detection and classification defects on Banana and Apples by Computer Vision. As a result, the current article includes research from these domains as well. Finally, various pattern recognition techniques for detecting apple and banana defects are discussed.

**Keywords :** computer vision, banana, apple, detection, classification

**Conference Title :** ICMLAI 2022 : International Conference on Machine Learning and Artificial Intelligence

**Conference Location :** Moscow, Russia

**Conference Dates :** August 30-31, 2022