

# FOOD QUALITY DETECTION

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# Introduction

Food quality monitoring has become essential as spoiled food causes severe health risks. Traditional checking methods rely mainly on human senses, which are not accurate, scientific, or consistent. Machine Learning allows food images to be analyzed automatically and make quick predictions about freshness. This ensures safer food consumption and improves overall food management.

# Problem Statement

Food wastage increases because of lack of accurate freshness monitoring.  
Spoiled food sometimes reaches consumers without proper checking.  
Human evaluation is time-consuming and varies from person to person.

# Objective

The primary objective is to automatically classify food as Fresh or Spoiled using ML techniques.

It aims to:

- Increase food safety
- Reduce wastage
- Support faster decision-making in food handling, storage, and distribution

# Advantages

- Prevents foodborne diseases
- Fast and automated detection
- Reduces food wastage
- Suitable for bulk food inspection
- Cost-effective and hygienic

# Output

## Food Quality Detection System

Welcome, root! [IoT Sensors](#) [History](#) [Logout](#)

### Upload Food Image for Analysis

Selected: food.jpg

Analyze Image

### Analysis Results



Quality Score:	65.67	%
Temperature:	20.1	°C
Humidity:	63.4	%
Freshness:	Poor	

# Future Enhancements

- Multi-class prediction (Fresh / Mild Spoilage / Rotten)
- Integration of IoT sensors for better decision support
- Mobile App for public usage
- Cloud deployment for large-scale storage units

# Thank You

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