

AI-Powered Nutrition Analyzer for Fitness Enthusiasts

AIM:

To develop Nutrition Analyzer for Fitness Enthusiasts by Artificial Intelligence.

PROBLEM STATEMENT :

Food is essential for human life and has been the concern of many healthcare conventions. Nowadays new dietary assessment and nutrition analysis tools enable more opportunities to help people understand their daily eating habits, exploring nutrition patterns and maintain a healthy diet. Nutritional analysis is the process of determining the nutritional content of food. It is a vital part of analytical chemistry that provides information about the chemical composition, processing, quality control and contamination of food.

The main aim of the project is to building a model which is used for classifying the fruit depends on the different characteristics like colour, shape, texture etc. Here the user can capture the images of different fruits and then the image will be sent the trained model. The model analyses the image and detect the nutrition based on the fruits like (Sugar, Fibre, Protein, Calories, etc.).

In this era, people are becoming more health-conscious than before. However, there is a lack of knowledge about different fitness and wellness aspects of food. Food patterns and diet are important factors to improve the lifestyle by preventing diseases. The food industry comprises complexities, and the journey for innovation in the food industry is long, from idea generation to commercialization. It is reported that diet significantly influences the evolution of CNCD (chronic non-communicable diseases), including, cardiovascular diseases, depression, and obesity. Further, product ideas and advanced packaging demand thorough data collection, testing, and certification before approaching consumers.

Traditional method includes are wherein the trainer speaks about a topic and trainees take notes for future references. Collection of data and calculation methods were tedious and not free from human errors, luckily, disruptive digital technologies stepped in to record data and calculated mission-based statistics effectively. But in our proposed method, Artificial intelligence and machine learning in nutrition use raw data and extract competitive features that are advantageous for predicting better dietary plans. Notification and reminders from fitness apps keep reminding you about your health goals, thus keeping you motivated.