

ABSTRACT

In today's fast-paced world, individuals prioritize their well-being and place significant value on their health. They place a great deal of importance to the food they eat. But just limited eating does not mean that they are eating less amount. It is possible for even a small amount of food to have large number of calories. Hence it is crucial for people to know how much they eat more than what they eat. Here a calorie estimation plays an important role that helps people in knowing their food. Food recognition and calorie estimation using image processing leverage computer vision techniques to analyse food images and provide insights into their nutritional content. This technology enables users to make informed decisions about their diet and overall health. The system employs image processing tools which include deep learning and classification algorithms such as CNN and LSTM. CNNs excel at recognizing patterns and features within images, enabling the identification of different types of food items. Meanwhile, LSTM networks can analyse sequential data, aiding in understanding portion sizes or historical eating patterns. By combining these algorithms, your system accurately estimates calorie content, providing users with valuable insights into their dietary intake. This approach enhances the system's accuracy and reliability, offering users a powerful tool for monitoring their food consumption in today's health-conscious lifestyle. This combined approach makes the detection method more enhanced and stronger.