

Food Calories Estimation Using Image Processing

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Abstract: One of the most difficult aspects of obesity therapy is determining how much food obese individuals consume on a daily basis. A computer vision-based approach is used in this study to estimate calorie consumption from food photographs. Propose a Food Recognition System (FRS) for the calculation of calories and nutrient values. The system next analyses and categorises the photos to determine the type of food and portion size, and then uses that information to calculate the calories in the food. In today's food identification applications, emerging food categorization methods are critical. A new food recognition algorithm is provided for this purpose, taking into account the shape, colour, size, and texture features of the item. A better classification will be attained by using various combinations of these features. Dietitians can use this food calorie and nutrition assessment method to track and control their daily food intake. The texture, shape, and size properties of the food image are then retrieved using the CNN. The better the classification, the more accurately the calories of the food may be estimated..

Keywords: Convolutional Neural Network, Calorie Measurement, Pre-processing and Feature Extraction, Web application

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