# Literature Survey

# Nutrition Assistant Application

## INTRODUCTION:

Due to the ignorance of healthy food habits, obesity rates are increasing at an alarming speed, and this is reflective of the risks to people's health. People need to control their daily calorie intake by eating healthier foods, which is the most basic method to avoid obesity. However, although food packaging comes with nutrition (and calorie) labels, it's still not very convenient for people to refer . So, App-based nutrient dashboard systems which can analyze real-time images of a meal and analyze it for nutritional content can be very handy and improves the dietary habits, and therefore, helps in maintaining a healthy lifestyle.

## EXISTING SOLUTIONS:

### 1. MyFitnessPal

MyFitnessPal is a powerhouse app, with an enormous food database, barcode scanner, recipe importer, restaurant logger, food insights, calorie counter

**Methodology/Algorithm:**

Food calorie value is calculated through proposed CNN (Convolutional Neural Network) Model

### 2. Lifesum: Healthy Eating

When signing up, the app collects information about your height, weight, age, and specific goals to provide a personalized plan based on your needs.

**Methodology/Algorithm:**

The design of personalized mobile nutrition recommendations and plans by identifying important factors

**3. Foodzilla! Nutrition Assistant**

The app helps to see nutrients, calories, vitamins and minerals by just taking pictures of your meals. Discover new healthy recipes and use filters to find the ones that fit your diet such as "Low Carb", "High Protein", "High Fat", "Low FODMAP" and more.

**Methodology/Algorithm:**

The SSD (single Shot MultiBox Detector) for real-time processing of object detection and classification has been used.

**4. MyNetDiary Calorie Counter**

The app helps you set goals, monitor your weight trends, and track your intake based on the specific diet plan you select. It also offers detailed nutrient information for each ingredient in your food log and a daily analysis to help keep you on track.

**Methodology/Algorithm:**

Food calorie value is calculated through proposed CNN (Convolutional Neural Network) Model

## Characteristics of Smartphone Applications for Nutrition Improvement in Community Settings: A Scoping Review.

**"Characteristics of Smartphone Applications for Nutrition Improvement in Community Settings: A Scoping Review"**.

Smartphone applications are increasingly being used to support nutrition improvement in community settings.

However, there is a scarcity of practical literature to support researchers and practitioners in choosing or developing health applications.

This work maps the features, key content, theoretical approaches, and methods of consumer testing of applications intended for nutrition improvement in community settings.

After screening, articles were grouped into 4 categories: dietary self-monitoring trials, nutrition improvement trials, application description articles, and qualitative application development studies.

For mapping, studies were also grouped into categories based on the target population and aim of the application or program.

This work provides a unique resource for program development teams and practitioners seeking to use an application for nutrition improvement in community settings.

## LITERATURE REVIEW

Food recommendations for nutrition personalized according to individual health requirements are a major research gap identified by several food recommender systems surveys. Nowadays India is undergoing an impressive economic growth accompanied by a very slow decline, almost stagnation, in malnutrition levels. In developing countries, studies on dietary patterns and their relationship with nutritional status are scarce

Over the years some nutritional studies have been performed to explore different types of food consumed in various Indian regions, among different social samples. To review and describe trends in food and nutrition intake patterns in the different states of India.

The review was carried out in PubMed, using the advanced research criteria: [food* OR ("meal pattern*") OR ("eating pattern*")] AND ("nutrient intake") AND India*. Food intake patterns showed that most of the Indians are vegetarians and that food items rich in micronutrients (pulses, other vegetables, fruits, nuts, oilseeds and animal foods) are generally consumed less frequently.

Poor and monotonous cereals-based diet may promote inadequate nutrition intakes according to Recommended Daily Allowance (RDA) standards.

**CONCLUSION:**

Primary motivation for this project is to make nutrition information available easily by using this application and it helps a lot in people's life to make decision of their daily intake and lead a healthy life.

**References:**

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