# LITERATURE SURVEY

AI POWERED NUTRITION ANALYSER FOR FITNESS ENTHUSIASTS

1.Title:A Survey on AI Nutrition Recommender Systems

Author Name:Thomas Theodoridis

Year of publishing:2019

Description:The accompanying nutrients play a vital role in the way food is processed by the human body, thus affecting our overall health. To this end, the consumption of a wide variety of food items is necessary in order for the human body to obtain the right amounts of nutrients. Failing to follow such a well-balanced diet, in combination with a generally unhealthy way of living, has been shown to increase the risk for cardiovascular disease, type II diabetes and some forms of cancer. Taking all these factors into consideration, food intake monitoring can provide substantial benefits in certain cases.

Advantages:

* Helps better understanding.

Disadvantages:

* Some of the information represents basic personal information that can have a significant effect at reducing the error in personal nutrition outcome.

2.Title:ARTIFICIAL INTELLIGENCE APPLICATIONS IN NUTRITION AND DIETETICS

Author Name:,Ferideayyildiz

Year of publishing:2021

Description:The importance of individual nutrition has also triggered the increase in artificial intelligence apps. It is thought that different apps such as food preferences and dietary intake can play an important role in health promotion. Researchers may have some difficulties such as remembering the frequency or amount of intake in assessment of dietary intake. Some applications used in the assessment of food consumption contribute to overcoming these difficulties. Besides, these apps facilitate the work of researchers and provide more reliable results than traditional methods. The apps to be used in the field of nutrition and dietetics should be developed by considering the disadvantages. It is thought that artificial intelligence applications will contribute to both the improvement of health and the assessment and monitoring of nutritional status.

Advantages:

* AI arguments the capabilities of differently abled individuals

Disadvantages:

* Cost is high
* Less flexible

3.Title:An Artificial Intelligence System for Dietary Assessment

Author Name:Maria F. Vasiloglou

Year of publishing:2020

Description:Diet-related diseases—such as cardiovascular diseases and diabetes—are the leading causes of death globally. Macro-vascular diabetes complications such as atherosclerotic cardiovascular disease are also the most common cause of morbidity and mortality for individuals with diabetes.For individuals living with cardiovascular diseases, a balanced diet which is low in saturated and trans-unsaturated fat and high in fruits and vegetables, can reduce the risk of ischemic heart disease and stroke. People with diabetes need to monitor their diet, specifically their carbohydrate (CHO) intake, as it is a key factor that can affect blood glucose levels.AI plays a major role in maintaining diet

Advantages

* Increased efficiency of the diagnostic process. ...
* Reduced overall costs of running the business. ...
* Safer surgeries. ...

Disadvantages

* Patients tend to record less diligently as the duration increases.

4.Title:Artificial Intelligence in Nutrients Science Research

Author Name:Magdalena Suchodolska

Year of publishing:2021

Description:In recent decades, there has been an expansion of AI applications in medicine and biomedical sciences. The possibilities of artificial intelligence in the field of medical diagnostics, risk prediction and support of therapeutic techniques are growing rapidly.In solving biomedical problems, raw data can be both literature and experimental data

Advantages:

* Artificial Intelligence arguments the capabilities of differently abled individuals.
* Highly used in medical field.

Disadvantages:

* High cost
* Make human lazy

5.Title:Fundamentals of food,nutrition and diet therapy

Author Name:SumatiR.Mudambi,M.V.Rajagopal

Year of publication : 2006

Description:Dietary intake can be assessed by objective observation using a duplicate diet approach or food consumption record by a trained research staff.

Advantages

* Weight loss or weight gain
* Avoid nutrient efficiency and decrease stress and chronic fatigue
* Keep skin ,teeth healthy

DISADVANTAGES

* A poor diet is an important risk factor in coronary heart disease.

6.Title:Effects and challenges of using a nutrition assistance system

Author Name:Hanna Hauptmann

Year of publication:2021

Description:These systems have the potential to help users navigate the growing amount of multimedia food content.The use of nutrition assistance systems is promising since previous studies have shown that persuasive technologies can help people to eat healthier.

Advantage

* Enhanced patient care.
* Easy information sharing.
* Better prevention carees

Disadvantage

* Factors includes poor nutrition knowledge, dietary extremism,poor practical skills in choosing.

7.Title:Promotion of healthy nutrition and physical activity lifestyles of teenagers.

Author Name:ameMaria Vanessa Villasans, JvanMigual Pires, Francisco Florez, Revualta

Year of publication:2020

Description:Implemented the mobile applications to help young peoples to choose healthy lifestyle.

Advantage:

* The use of mobile applications mainly focused on health nutrition and physical fitness.

Disadvantage:

* The use of gamification increased the use of these type of mobile application.

8.Title:Fueling for fitness

Author Name:NanaL.Meyer,Jacqueline Raymonde Berning,MelindaManore

Year of publication:May 2012

Description:The purpose of the article is to provide an update on food and fluid recommendations before, during and after exercise to improve the health and performance of fitness and recreational sports enthusiasts.

Advantages

* Fluid replacement during exercise should occur according to sweat rate.
* To maximize your performance and recovery, it's imports to fuel your body with the right nutrients before workout.

Disadvantages

* Skipping post-workout refueling can leave you feeling tired and foggy.

9.Title: Diet and Nutrition expert system for meal management and nutrition Counseling

Author name : Megha .V. Gupta

Year of Publishing:2017

Description : Nutrition of 80% percentage of out of fitness goal equation human suffer from many problems such as fitness problems, diet problems, proper guidelines is necessary for them to stay healthy. Some kind of awareness can be spread through mobile as they often spend the time with mobile. Smartphones are the best way to fulfill the requirements.

Advantages:

* For healthy heart and cholesterol lowering.
* A source of dietry fiber

Disadvantages:

* Eating too close to a workout can also result in nausea and gastrointestinal upset

10. Title:Application of Artificial intelligence on nutrition assessment and management

Author name : Dr. Kavita Sundersanadas

Year of Publishing : 2021

Description :Analysis of the Patients can be done by lab test to find the diseases.

Advantage :

* Repeatability and Objectivity

Disadvantage :

* Some data provided may be inaccurate.