NUTRITION ASSISTANT APPLICATON

1.Mobile cloud based system recognizing nutrition and freshness of food image

Diptee Kumbhar , Sarita Patil ” **Mobile cloud based system recognizing nutrition and freshness of food image,”** 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS),2017,pp.709-714, **DOI:**10.1109/ICECDS.2017.8389528

- As well as mobile-based applications have become ubiquitous in numerous aspects of people's lives over the past few years.
- Harnessing the capability of this trend for healthcare purposes has become a focal point for researchers and industry, in specific designing applications that can be utilized by patients as a major aspect of their wellness, prevention, or treatment process.
- Their weight, eating healthier and avoiding obesity, a system that can measure calories and nutrition in every day meals can be very useful.
- We propose a mobile cloud-based food calorie measurement framework.
- Our framework provides clients with advantageous and intelligent mechanisms that permit them to track their food intake and monitor their calorie count.
- The food recognition technique in our system uses Naive Bayes training mechanism in a cloud computing environment with classifier machine learning.
- This system improves the accuracy of calories consumption measurement process.

2.Personalized Nutrition Solution Based on Nutrigenomics

Jitao Yang, “**Personalized Nutrition Solution Based on Nutrigenomics**”, 2019 19th International Conference on Computational Science and Its Applications (ICCSA),2019, pp. 73-103 ,**DOI**: 10.1109/ICCSA.2019.00006

- People require various nutrients such as proteins, vitamins and minerals in diet to maintain our health.
- Due to the increasing unhealthy eating habits, many people are characterized as nutrition unbalance, causing dyslipidemia, obesity, diabetes or the other diseases.

- Therefore, from fundamental nutritional science into helpful dietary advice is nowadays one of the main challenges of nutrition healthcare science.
- Several international and national dietary guidelines provide nutrition recommendations for different kinds of food intake; however, the guidelines provide general recommendation for population rather than tailored for individuals.
- Nutrigenomics represents a better understanding of how genomics is connected with the development of personalized nutritional science and provides a promising approach for designing tailored nutritional solutions for individuals or population sub-groups.
- In this paper we design and implement a mobile professional personalized nutrition recommendation platform allowing the application of the new findings of nutrigenomics at the population sub-groups and even individual level.

3.The use of mobile apps to improve nutrition outcomes.

Ktenris N DiFilippo, Wen-Hao Huang, Karen M. Chapman-Novakofski," **The use of mobile apps to improve nutrition outcomes"**, 2015 jul:21, pp-243-53,**DOI**: 10.1177/1357633X15572203

- Studies that were descriptive, did not include apps, focused on app development, app satisfaction app feasibility, text messaging, or digital photography were excluded.
- We evaluated article quality using the Academy of Nutrition and Dietetics Evidence Analysis Manual.
- Data was extracted for knowledge, behavior and weight change. Our initial search identified 12,010 titles from PubMed, 260 from CINAHL and 4762 from Web of Science; of these, only four articles met all search criteria.
- Using app(s), cellular phone, iPads, mobile phone, mobile telephone, smart phone, mobile and mHealth as search terms with diet, food and nutrition as qualifiers we searched PubMed, CINAHL (January 2008-October 2013) and Web of Science (January 2008-January 2014).
- Positive quality ratings were given to three articles; only one reported knowledge outcomes
- Behavioral changes in reviewed studies included increased adherence to diet monitoring ($p < 0.001$) and decreased effort to continue diet without app ($p = 0.024$). Few studies, however, have explored the use of nutrition apps as supportive educational interventions.
- Most apps focus on weight loss with inconsistent outcomes. We conclude that using apps for education needs additional research which includes behavior theory within the app and improved study design.

4.Good Sports Nutrition.

Ruyao Gong, Nan Ge, Jijie Li," **Good Sports Nutrition".** International society of sports nutrition position stand 2019, sports and energy drinks 2019, 2020/10/31, pp- 2017;14:1-21, **DOI**: 10.3390/nu13113771

- This paper explores the sports nutrition, sports diet and respective supplements. Sports nutrition is a general term comprising everything related with products manufactured mainly for people doing sport.
- The main aim of such nutrition is improving the athlete's performance and increasing endurance. Sports nutrition is not doping, but a rather a complex of easily digesting and highly nutritious elements.
- Any diet should consist of three main elements: carbohydrates responsible for providing energy, liquid preventing body from heat collapse, proteins maintaining muscle mass, fats, vitamins and minerals.
- The knowledge of sports nutrition can be in need for a nurse when taking care about the athletes because it will give the better understanding of what their ration consists of and what consequences it may cause.