Literature Survey

Team ID: PNT2022TMID38573

Project Title: Cloud Based Nutrition Assistant Application

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1	**Paper title**	V. B. Kasyap and N. Jayapandian - "Food Calorie Estimation using Convolutional Neural Network," - 2021.
	Problem definition	The proposed model is to provide unique solution for measuring calorie by using deep learning algorithm.
	Methodology/ Algorithm	The food calorie value is calculated the proposed CNN (Convolutional Neural Network) model.
	Advantages	This model indicates that the proposed CNN model is providing higher accuracy level Good calorie will provide good health condition.
	Disadvantages	• There are possibilities for the occurrence of an error in calorie calculation. • It may not identify the food correctly.

2	**Paper title**	K.Kaneda, T. Ooba, H. Shimada, O. Shiku and Y. Teshima - "Estimation method of calorie intake by deep learning using depth images obtained through a single camera smartphone," - 2021.
	Problem definition	Healthy nutrition contributes to prevent non-communicable and diet- related health issues.
	Methodology/ Algorithm	Augmented reality core depth application programming interface, which creates depth images using a single camera smartphone.
	Advantages	Using the estimate values, it can calculate the volume of calorie intake of a user. This method of estimating calorie intake can be applied to home healthcare and health management.
	Disadvantages	• Model • Complexity Data Collection • Signal issue

3	**Paper title**	Hauptmann, H., Leipold, N., Madenach, M. et al – "Effects and challenges of using a nutrition assistance system" - (2021).
	Problem definition	Healthy nutrition contributes to prevent non-communicable and diet- related health issues
	Methodology/ Algorithm	The design of personalized mobile nutrition recommendations by identifying important factors,
	Advantages	• visual feedback as an integral part to serve awareness • reflection on behaviour • Educational content to enhance nutrition-related knowledge.
	Disadvantages	This study shows different challenges that health-focused nutritional assistance systems face when being used in the long term.

4	**Paper title**	H.Hu, Z. Zhang and Y.Song - "Image Based Food Calories Estimation Using Various Models of Machine Learning," - 2020
	Problem definition	The study aims to improving their healthiness and regulating calorie intake for every meal, so that we build a model for calorie estimation of food.
	Methodology/ Algorithm	The SSD (Single Shot MultiBox Detector) for real-time processing of object detection and classification has been used.
	Advantages	Using our models, users can easily calculate the calorie intake of their desired foods, saving a lot of time compared to their conventional method. • Improve the health of an user. • Calculate calorie intake for every meal.
	Disadvantages	The input is given by taking photos.