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Poondi– 613 503, Thanjavur-Dt, Tamilnadu
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3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Collaborating Agency:

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Date: 08.06.2018

LINKAGE

For the year 2018-2020

Between

1. Dr. A. VENKATESH
Assistant Professor
PG & Research Department of Mathematics
A.V.V.M Sri Pushpam College (Autonomous),
Poondi – 613 503.

&

2. Mr. A. BRITTO MANOJ
Assistant Professor
Department of Mathematics
Anjalai Ammal Mahalingam Engg. College
Kovilvenni , Tiruvarur (Dt).

Considering the significance of the noble cause for the student community, we have come forward to collaborate with each other to exchange research knowledge, expertise and library facilities to the process of scientific research and education in the field of Mathematics. The parties (mentioned above as 1. & 2.) have had preliminary discussion in this matter and have ascertained areas of broad consensus. The parties now therefore agreed to enter in writing these avenues of consensus, under a flexible linkage, and this project aims to fill the gap between knowledge demand and subject expertise related to the mentioned field.

Joint Responsibilities

- Sharing of library resources, database etc.,
- Joint Publication of research articles, books, magazines, bulletins etc.,
- Jointly organizing conferences, seminars, symposia and workshops.
- Submitting joint proposals for research funding from agencies like UGC, CSIR, DST and TNSCST.

Dr. A. VENKATESH

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AN APPLICATION OF FUZZY TRANSPORTATION PROBLEM FOR DIET CONTROL

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Abstract

In this study we discussed about the fuzzy transportation problem and the optimal solution by VAM method has been employed to solve the dietary problems. This research paper aims to suggest the people to have the total healthiness of food products using diet control with an optimal cost.

Keywords: Fuzzy transportation problem, triangular fuzzy number, human balanced diet

1. Introduction

A fuzzy transportation problem is defined as a transportation problem in which the transportation costs, supply, and demand quantities are fuzzy quantities. Most of the existing techniques provide only crisp solutions for the fuzzy transportation problem. In a fuzzy transportation problem, all parameters are fuzzy numbers. Fuzzy numbers may be normal or abnormal, triangular or trapezoidal. Ranking method is used to change the fuzzy number into the crisp form. The method of ranking was first proposed by Jain[4], Yager [10]. They also proposed indices which may be employed for the purpose of ordering fuzzy quantities in [0, 1]. Ranking function is used in various areas of fuzzy transportation. Chanas and Kuchta [1],[2] proposed a method for solving transportation problem. Rashmi Singh and vipin saxena [7],[8], proposed a new method for optimization of cost in fuzzy transportation problem using secure data transfer technique, which gives optimal results.

Everyone has daily nutritional needs and to be fit, active and healthy, they need to maintain a proper diet. As food is one of the basic needs of human being, hence the importance of taking proper diet and nutrition comes along with it to keep human body from diseases. As living in India, where most of the people are not conscious about the diet and nutrition aspects of food, they fall victim to deficiency or overdose of it. Although nutrition is not the only determinant factor of having diseases, still maintaining proper diet can minimize some disease possibilities.

Every nutrition food plays an important role for supporting daily activities of the people. Therefore, a balanced diet should be in the proportion to the values of protein, fats, total fibre, carbohydrates and calcium. One of our objectives is to bring change in the food consumption of people to fight against frequent diseases. If diet knowledge can be reached in every house and if they are given a cost efficient solution to get proper food diet, the rate of diseases will be surely seen a downfall. People need to choose the food that is low price and also they should know the nutrient requirement of their body.

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A MATHEMATICAL MODEL FOR WELL BALANCED OIL SEEDS DIET PLAN USING FUZZY RANKING TECHNIQUES

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Abstract

In this paper we discussed a mathematical model for oil seeds diet plan based on ranking techniques in which the transportation pattern like demand, supply and transportation cost are tetra decagonal fuzzy numbers. Vogel's approximation method (VAM) is used for procuring fuzzy transportation problem to get fuzzy nominal solution. The result shows an excellent nutrient value for the oil seeds diet with low cost. The oil seeds diet will provide a high energy and nutritionally important food.

Keywords: Tetra decagonal fuzzy number, Ranking function, Fuzzy transportation problem, Oil Seeds in human proportional diet.

AMS Subject classification: 97A40, 90B06, 90C08, 90C70, 90C90, 97M40.

1. Introduction

Ranking of fuzzy number plays a decisive role. Fuzzy number of ranking is an elemental form of manipulative fuzzy data in optimization. The basic solution of application in ranking of generalized tetradecagonal fuzzy number in transportation gives the value of cost in generalized tetradecagonal fuzzy quantities. Zadeh [7] present theory of fuzzy and then different ranking techniques has been developed. Fuzzy represents data and information containing uncertainties. Dubois and Prade [1] proposed fuzzy number on operations in [0,1] Saneifard [5] proposed a modified method for defuzzification by Probability density function. Edithstine Rani Mathew and Sunny Joseph Kalayathankal [2] proposed a new ranking method to solve fuzzy transportation problem. Wang Z.-X and Mo Y.-N [6] proposed ranking based on ideal solution. Zhenyuan Wang and Li Zhang-Westmant [8] proposed fuzzy number by their centre of expansion.

When we spoke about nutrient and health content of foods, it should be related to foods. Almost all foods eat up by the people are subject to their own interest. Cooking practices may vary from one region to another in the country and even from one house to another. Even though we have wide range of cooking practices the use of oil seeds is different. Oil seeds are included daily in the food to improve health conditions. Oil seeds contain iron, minerals, potassium, zinc, trace metals. Oil seeds contain high level of energy that is important for our body. Oil seeds gives good amount of iron absorption and it also contains several vitamins, fiber that boost energy level of the people to sustain health.

Gingelly seeds, Linseeds, Mustard seeds, Niger seeds and Pine seeds are the Oil seeds commonly used in every home irrespective of rural and urban. Oil seeds deliver all kinds of vitamins, minerals, carbohydrates, proteins, calcium, β-carotene, potassium, tannin, and iron. Oil seeds diet contribute essential health for all the human being. Gingelly seeds provide carotene values and vitamins which is good for eyes, skin, and internal system. Gingelly seeds control blood sugar levels because it contains zero calorie value and with that it helps us to reduce weight. After eating Gingelly seeds it speeds up human metabolism. Gingelly seeds are loaded with many oxidative deteriorations that cover the human body against free