

ABSTRACT

Ideal body weight is the optimal body weight to maintain body health and fitness. Many people are still not paying attention to their health regarding the proper calorie intake for their bodies.

In this research, a system for choosing the ideal body weight diet for adults is designed, which can help a person meet the calorie needs according to the body's needs using the Particle Swarm Optimization algorithm. Making this system will display information on the user's body condition and the food menu according to the user's body condition.

The data used in the system for selecting the ideal body weight diet for adults using the Particle Swarm Optimization algorithm in the form of 50 user data, and data on foodstuffs and their nutritional content consisting of 7 different types of food ingredients with a total of 92 data. This application has an accuracy rate with a percentage value of 86%. For alpha testing to get an accuracy level with a percentage value of 100%. So, it can be concluded that the system for determining the ideal body weight diet for adults fulfills the desired goal, which is to create an application that is easy and efficient to use to determine the diet according to the user's needs.

Keywords: *Calorie, Dietary habit, Ideal weight, Particle Swarm Optimization.*