ABSTRACT

Fulfillment of diet is a factor that needs to be considered in the period of growth and development of infants. In preparing a diet, one must be able to pay attention to a balanced and varied menu in the menu, including the type of food in the appropriate amount. So as to meet the nutritional needs needed by the body for the maintenance of cells in the body and the growth process of the child. Therefore an application is made for the selection of eating patterns using the Particle Swarm Optimization Algorithm. The results obtained in this thesis research is a diet for toddlers along with the amount of calories, carbohydrates, protein, and fat. Testing the system with black box testing with 5 scenarios, the results of scenario testing are 100% successful. The precision value in the expert system testing of 30 test data samples has correct accuracy.

Keyword: *Toddler, Nutrition, Particle Swarm Optimization Algorithm*