ABSTRACT

IMPLEMENATION OF TSUKAMOTO FUZZY INFERENCE SYSTEM TO DETERMINE NUTRITIONAL ADEQUACY IN TODDLER USING ANDROID-BASED

By:
ARI ROHMAWATI

Toddler is one of the assets of human resources (HR) for the future in carrying out national development. Toddlers need to get special attention, one of which is in terms of nutritional adequacy of toddlers. Measuring the nutritional status of children under five that is currently used is the Kartu Menuju Sehat (KMS). This is not optimal because to find out the nutritional status in this system is only based on age, body weight, and gender only. It impacts the resulting nutritional status is only based on body weight. Based on these problems, the purpose of this study was to design a system that helped the community to find out the nutritional status of toddlers based on age, weight, height, and upper arm circumference. The method of this study used FIS-Tsukamoto with 4 input variables, 135 fuzzy rules, and 1 output namely nutritional value. The result of this study was a fuzzy system by applying the Android-based FIS-Tsukamoto method. It was able to ease the public to know the nutritional status of toddlers.

Keywords: Nutritional Adequacy, Fuzzy Logic, FIS-Tsukamoto, Android