ABSTRACT

Stunting in children under five is the result of several factors including nutrition, health, sanitation and the environment (Depkes RI, 2013). Stunting is a chronic malnutrition problem caused by inadequate nutritional intake for a long time due to feeding that is not in accordance with nutritional needs. The condition of failure to thrive in children under five (infants under five years) is the result of chronic malnutrition so that the child is too short for his age. Malnutrition just happens since the baby is in the womb and in the early mass after the baby is born, however, the stunting condition only appears after the baby is 2 years old. Short toddlers (stunted) are toddlers with height (TB/U) according to their age compared to the standard who-mgrs (multicentre growth reference study).

In this study, a stunting monitoring system was designed where the hardware (measuring instrument) of body weight uses a single point load cell sensor and height uses an ultrasonic sensor HY-SRF05 integrated in a realtime database. The database is directly connected to the MyBidan website platform, so the website can analyze the results of measuring height and weight whether they are included in the stunted category or not.

The result of the stunting monitoring test in children is that the child's weight using a loadcell sensor is compared with a dacin scale to get an average error value of 1.77% and the accuracy rate is 98.23%, in children's height using an ultrasonic sensor compared to a stadiometer. get an average error value of 1.08% and the value of the accuracy level is 98.92%, and the child's body temperature using the MLX90614 sensor compared to a thermometer to get an average error value of 5.28% and the value of the accuracy level is 94, 72%. In the indication of stunting, based on the measurement results, the average error is 10% of the 20 samples of children's measurement data. In the indication of BMI based on the measurement results, the average error is 10% of the 20 samples of children's measurement data..

Keywords: *Stunting, IMT, accuracy, error*