ABSTRACT

According to the results of the Survei Status Gizi Indonesia (SSGI) conducted by the Ministry of Health in 2021, the prevalence of stunting in Indonesia will be 24.4% in 2021. The effects of childhood stunting on a child's lifestyle will be devastating. A child affected by stunting is likely to experience a variety of health problems, as well as physical and mental impairments. One of the symptoms that can be seen is having a short and thin body. Short and thin bodies can be identified through the body mass index (BMI), which can categorize a person's nutritional status.

This research was conducted on children aged 7 to 12 who were enrolled at the MI Az-Zahra school in Desa Selacau at the time of the study. The information collected from these children includes their height, weight, and leg length. The research that we will conduct will involve developing a Bluetooth-enabled microcontroller-based device capable of measuring the IMT level of children. On a mobile device, the status of a child's growth will be categorized directly in accordance with guidelines from the Ministry of Health regarding child anthropometric standards. The child's standard anthropometric measurements will yield a category based on their body mass index and height. From this research, it is hoped that parents will be better able to observe their child's growth.

With a correlation coefficient of 0.74 obtained for male children and a correlation value of 0.73 for female children in the sample data testing, it indicates a relatively strong correlation between foot length and height. Meanwhile, the accuracy of testing for male children is 63.70%, and for female children it is 60.60%. The overall final testing result of the designed system achieved an accuracy value of 73.00% for each BMI classification.

Keywords: Stunting, BMI, Anthropometry of children