

# **TODDLER WEIGHT ANALYSIS SYSTEM USING IoT TECHNOLOGY**

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## **ABSTRACT**

*Currently the facilities available at Posyandu are very limited. The measuring instruments used are very classic. Usually, to measure a toddler's weight, a physical scale is used and height is measured with a measuring tape. The results of measurements carried out every month are not recorded completely because the system is not yet computerized and is carried out manually. To overcome this, researchers designed a smart posyandu service machine that uses ultrasonic sensors and IoT-based load cell sensors. In the search for height measurements, an ultrasonic sensor was used because it has an accuracy rate of 92.29%. Body weight was measured using a 10 kg Load Cell sensor; then researchers also used an RFID sensor as an access card to retrieve identity data for children who had registered. To operate all the sensors used, researchers use a microcontroller, especially the NodeMCU ESP8266 because it can send measurement results to the web in database form. The web display is also very useful for monitoring a baby's growth and development, because there is a function to determine whether the baby is healthy or unhealthy and the incoming data will also be saved automatically and can then be seen by anyone. accessible*

**Keywords:** *Smart Posyandu, load cell sensor, ultrasonic sensor, ESP-8266, Web*