

## **ABSTRACT**

*Posyandu is an important health activity of community, by the community and for the community. One of the activities carried out at the Posyandu is weighing babies to check and monitor the growth and development of each baby. Currently, the process of weighing and recording the results carried out at the posyandu is still done manually. This causes the weighing process and recording the results to take a long time, especially when the queue conditions are crowded and the atmosphere is not conducive because crying babies can cause the weighing process to be less smooth and inefficient. Therefore, the research is aimed at designing scales using ESP8266 so that they can be connected to IoT applications on computers to read and send weighing results in real time, with load cell sensors as load readers and RFID sensors as database storage. The implementation time of the design is carried out from June to August 2022. The design steps for this tool are conducting a literature study, selecting and collecting tools and materials, assembling components, testing tools and collecting data. The results of the load cell sensor measurement using a load variation of 2 kg to 30 kg with different multiples indicate that measurements using digital posyandu scales and standard digital scales have good accuracy with an accuracy value of 99.16%. For optimal performance, RFID works with a distance of 0 cm to 4 cm. And for the sending of weighing results to Google Sheets, it was 100% successful with an accuracy of 98.96% of the weighing results.*

*Keywords: ESP 8266, IoT, load cell, Posyandu, RFID*