# *SMART POSYANDU SERVICE SYSTEM USING LASER SENSORS AND LOAD CELL SENSORS BASED ON IOT (INTERNET OF THINGS)*

**Yopi Rinaldi**
*Program Studi Teknik Elektro, Fakultas Sains & Teknologi*
*Universitas Teknologi Yogyakarta*
*Jl.Ringroad Utara Jombor Sleman Yogyakarta*
*E-mail : yopirinaldi99@gmail.com*

***ABSTRACT***

*Currently, the facilities at the Posyandu are very limited. The measuring tools used are very conventional. Usually, measure the weight of toddlers using a dating scale and measure height using a meter. The results of measurements carried out every month are not well documented because the system is not yet computerized and is done manually. Especially in the era of the COVID-19 pandemic, the government recommends maintaining distance, avoiding crowds, and reducing physical contact. Therefore, to overcome this, researchers designed a smart posyandu service tool by utilizing a laser sensor (VL53L0X) and an IOT-based Load Cell sensor. In this study, for height measurements, using a VL53L0X laser sensor because this sensor has an accuracy rate of 99.99%. For weight measurement using a Load Cell with a capacity of 10 kg and then researchers also use an RFID sensor as an access card to retrieve data on the identity of babies who have been registered so that immunizations do not need to register again. To operate all the sensors used, the researcher uses a microcontroller, namely NodeMCU ESP8266 because it can send measurement results to the web in the form of a database. The web display is also very helpful in monitoring the baby's development because there are features to find out if the baby is healthy or unhealthy and also the incoming data will be saved automatically, then it can be accessed at any time.*

***Keywords****: Smart Posyandu, load cell sensor, vl53l0x sensor, ESP-8266, Web*