

***Smart Monitoring Broiler Weight Based on Android***  
Fendik Eko Purnomo, S.Pd., M.T As a Thesis Supervisor

**Tsaqif Aji Kumara**

Mechatronics Engineering Technology Study Program  
Engineering Department

***ABSTRACT***

*Manual weighing of broiler chickens often causes stress to the chickens, which can affect production quality and quantity. This study aims to develop an Android-based broiler chicken weight monitoring system that can automatically weigh chickens, with the hope of increasing production efficiency on broiler chicken farms. The system is designed using a Load cell sensor to weigh the chickens and an ESP32 module to wirelessly transmit the chicken weight data to an Android application developed using Kodular.io. This research involves several stages, including the design and manufacture of the device, application development, and system testing. The test results show that this application can monitor chicken weight in real-time, calculate the Feed Conversion Ratio (FCR), and estimate harvest time with good accuracy. In addition, the application can also store and display data in an easy-to-understand graphical format for users. With this system, the chicken weighing process becomes more efficient and does not cause stress to the chickens, which is expected to improve production efficiency on broiler chicken farms. This study concludes that the smart broiler weight monitoring application developed can display broiler chicken weight data from the smart broiler weight monitoring device with an average data reception speed of 4.59 seconds, thus it can be concluded that the application is quite responsive.*

**Keywords:** *Broiler chicken, weight monitoring, Android, Load cell, ESP32, Feed Conversion Ratio (FCR).*