

**Sistem Otomasi Pakan Ayam Petelur Terintegrasi Android untuk  
Meningkatkan Produksi pada Peternakan Risqi**

*(Automated Layer Chicken Feed System Integrated with Android to Increase  
Production at Risqi Farm)*

*Ahmad Fahriyannur Rosyady, S.Kom., M.MT. as an concelor*

**Johardio Eka Putra Ariv**

*Study Program Computer Engineering*

*Majoring of Information Technology*

**ABSTRACT**

*The productivity of layer chickens is strongly influenced by environmental factors and feed management, where manual feeding systems often lead to uneven distribution and reliance on labor. To address this issue, an automated chicken feeding system based on the Internet of Things (IoT) was developed, integrated with an Android application called SIPETRA. The system is controlled by an ESP32 microcontroller, using a NEMA 23 stepper motor to move a feeder cart along a 15-meter rail, and is equipped with an ultrasonic sensor and a servo to monitor and regulate feed distribution. The application was developed using Flutter and is connected to Firebase for real-time remote monitoring. The research applied a prototyping method with stages including communication, design, construction, evaluation, and implementation at Rizqi Farm in Jember. Test results showed that the system is capable of distributing feed automatically with 100% detection accuracy and increasing partner profits, as indicated by the rise in monthly sales from 700 kg to more than 1,500 kg. This system is expected to be an initial step toward the modernization of poultry farming, enabling farmers to more easily control factors affecting productivity and making farm operations more efficient and profitable.*

**Kata kunci :** : Ayam ras petelur, produktivitas, pakan otomatis, Internet of Things, motor stepper NEMA 23, efisiensi operasional, modernisasi peternakan.