

## **ABSTRACT**

### **Testing of LoRa Data Transmission Performance 433 MHz and 915 MHz Non Line of Sight (NLOS)**

**By**

**Fikri Achmadi**

PT Great Giant Pineapple is one of the business units of Great Giant Food which is engaged in the food production sector, starting from the production of fresh fruit and processed fruit, especially the integrated production of processed canned pineapple from planting, packaging, and shipping. In this study the authors conducted research in the Agritech Improvement department, a department engaged in the development of agricultural technology to maximize agricultural production processes and results. In this study, the authors created a tool that can monitor in real time based on the internet of things (IoT) and radio spectrum. This study uses LoRa (Long Range) communication technology which is applied to NLOS (Non-Line of Sight) conditions and uses the RSSI (Receive Signal Strength indicator) parameter as the parameter measured.

Keyword: IoT, LoRa, RSSI, NLOS

## **ABSTRAK**

### **Pengujian Unjuk Kerja Transmisi Data LoRa 433 MHz dan 915 MHz Non Line of Sight (NLOS)**

**Oleh**

**Fikri Achmadi**

PT Great Giant Pineapple merupakan salah satu bisnis unit dari Great Giant Food yang bergerak dibidang foods production mulai dari produksi buah segar dan buah olahan terutama produksi olahan nanas kaleng yang terintegrasi mulai dari penanaman, pengemasan dan pengiriman. Dalam penelitian ini penulis melakukan penelitian di departemen Agritech Improvement, merupakan departemen yang bergerak dibidang pengembangan teknologi pertanian dengan tujuan memaksimalkan proses dan hasil produksi pertanian. Pada penelitian ini penulis membuat alat yang dapat melakukan monitoring secara *real time* berbasis internet of things (IoT) dan spektrum radio. Penelitian ini menggunakan teknologi komunikasi LoRa (Long Range) yang diterapkan pada kondisi NLOS (Non-Line of Sight) dan menggunakan parameter RSSI (Receive Signal Strength indicator) sebagai parameter yang diukur.

Kata kunci: IoT, LoRa, RSSI, NLOS