

## ABSTRACT

*Air is an important part of human life, the level of air pollution can affect human health. Along with the times, air pollution is increasing from year to year due to the increase in vehicles so that it can cause air pollution. Carbon monoxide (CO) gas produced by vehicles can cause several impacts on humans. This study monitors carbon monoxide gas using the Lora-based MQ-7 (Carbon Monoxide) and DHT22 (Temperature) sensors using the thingspeak platform by utilizing LoRa (Long Range) technology to send sensor data to the Thingspeak platform which can be viewed via a smartphone or laptop. The research was conducted in an open space on Jl. Kyai H. Wahid Hasim in Karang Klesem, Banyumas Regency. The test results in the morning, afternoon, and evening of the MQ-7 sensor have an error value of 3.53% and the DHT22 sensor of 3.47% in the morning, afternoon, and evening. The results of the QoS LoRa test with a distance of 30 meters, the average RSSI value obtained was -65.57 dBm and the SNR value obtained was 9.83 dB on average. At a distance of 50 meters, the average RSSI value obtained is 78.63 dBm and the SNR value obtained is an average of 9.59 dB, at a distance of 70 meters the RSSI value obtained is -96.77 dBm, and the SNR value has obtained an average of 9.65 dB.*

**Keywords:** *LoRa, Thingspeak, Carbon Monoxide, Temperature, and QoS.*