

## Changing Arbitrary Data Transmission Period by Using Bluetooth Module on Gas Sensor Node of Arduino Board

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**Abstract :** Internet of Things (IoT) applications are widely serviced and spread worldwide. Local wireless data transmission technique must be developed to rate up with some technique. Bluetooth wireless data communication is wireless technique is technique made by Special Inter Group (SIG) using the frequency range 2.4 GHz, and it is exploiting Frequency Hopping to avoid collision with a different device. To implement experiment, equipment for experiment transmitting measured data is made by using Arduino as open source hardware, gas sensor, and Bluetooth module and algorithm controlling transmission rate is demonstrated. Experiment controlling transmission rate also is progressed by developing Android application receiving measured data, and controlling this rate is available at the experiment result. It is important that in the future, improvement for communication algorithm be needed because a few error occurs when data is transferred or received.

**Keywords :** Arduino, Bluetooth, gas sensor, IoT, transmission

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