ABSTRAK

Bluetooth yang berada dalam lingkup *Wireless PAN* menggunakan frekuensi 2.4 GHz yang lebih dikenal dengan *ISM Band (Industrial, Scientific, Medical)*. *Wireless LAN* (*802.11n*) juga menggunakan frekuensi 2.4 GHz. Karena menggunakan frekuensi sama yaitu 2.4 GHz, maka keduanya memiliki kemungkinan untuk saling berinterferensi.

Penulis menguji dan menganalisis kinerja dari *Bluetooth*. Parameter yang diukur antara lain adalah sinyal pengirim/penerima, *goodput*, dan *delay*. Ketiga parameter itu digunakan dalam pengujian *Bluetooth* tanpa interferensi, interferensi dengan sesama *Bluetooth*, dan interferensi dengan *Wireless LAN (802.11n)*.

Dari hasil pengujian menunjukkan bahwa interferensi sesama *Bluetooth* tidak menunjukkan penurunan kualitas yang signifikan terhadap kinerja *Bluetooth*. Namun, interferensi *Wireless LAN (802.11n)* menunjukkan penurunan kualitas yang signifikan terhadap kinerja *Bluetooth*.

Kata kunci : *Wireless PAN, Bluetooth, Wireless LAN, 802.11n, Goodput, Delay*

ABSTRACT

Bluetooth that exists in scope of Wireless PAN using frequency 2.4 GHZ that better known as ISM Band (Industrial, Scientific, Medical). Wireless LAN (802.1 In) also using frequency of 2.4 GHZ. Because those Bluetooth using the same frequency, that is 2.4 GHZ, so those Bluetooth have the possibility to interference each other.

In this thesis, the writer tested and analyzed the Bluetooth's performance. Parameter that was counted is signal transmitter/ receiver, goodput, and delay. Those three parameters were used for testing Bluetooth without interference, interference within two Bluetooth, and interference with Wireless LAN (802.1 ln).

The result of the test shows that interference within two Bluetooth does not give decreasing quality that significant of Bluetooth's performance. Therefore, interference in Wireless LAN (802.In) shows the vice versa.

Keywords: *Wireless PAN, Bluetooth, Wireless LAN, 802.11n, Goodput, Delay*