BAB VI

KESIMPULAN DAN SARAN

6.1 Kesimpulan

Berdasarkan penelitian *indoor wireless system* dengan metode *finite volume* menggunakan GPU, maka dapat ditarik kesimpulan sebagai berikut:

1. Gelombang *indoor wireless* yang berupa gelombang elektromagnetik yang didasarkan pada model persamaan Maxwell telah berhasil disimulasikan menggunakan metode *finite volume* dengan memanfaatkan CPU maupun GPU CUDA.
2. Penggunaan GPU CUDA, GEFORCE GTX 1080TI, pada simulasi gelombang elektromagnetik ini dengan metode *finite volume* dapat mempercepat hingga 9 kali daripada CPU. Peningkatan kecepatan ini dipengaruhi karena ukuran mesh yang berbeda-beda sehingga semakin besar beban komputasi yang dilakukan GPU maka performanya semakin meningkat.

6.2 Saran

Berdasarkan penelitian yang telah dilakukan, peneliti memiliki saran yang belum dapat dikerjakan dalam penelitian ini yaitu sebagai berikut:

1. Penelitian ini dapat dikembangkan dengan mesh tidak terstruktur berbentuk segitiga sehingga lebih meningkatkan fleksibilitas dalam perancagan domain.
2. Penelitian ini dapat dikembangkan dengan mengoptimalkan penggunaan GPU dengan menggunakan *shared memory* atau *textured memory*.

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