

Bab 5

Simpulan dan Saran

Bab ini berisi simpulan yang diperoleh berdasarkan penelitian yang telah dilakukan dan saran untuk perbaikan serta pengembangan penelitian selanjutnya.

5.1 Simpulan

Berdasarkan penelitian yang telah dilakukan dapat diperoleh beberapa kesimpulan sebagai berikut :

1. Mengganti sistem persinyalan kereta dari sistem persinyalan blok statis menjadi sistem persinyalan blok bergerak untuk mengatasi penumpukan jumlah penumpang kereta di stasiun.
2. Alternatif solusi untuk menambah frekuensi perjalanan kereta api yaitu dengan menggunakan sistem CBTC yang dirancang menggunakan implementasi algoritma DMPC. Pendekatan algoritma DMPC ini tidak membutuhkan semua rangkaian kereta mengetahui titik tujuan yang diinginkan, yang menawarkan keuntungan besar dari sudut pandang implementasi nyata.
3. Implementasi DMPC pada sistem CBTC dilakukan dengan menyusun sebuah simulasi menggunakan perangkat lunak Matlab yang dapat diperhatikan pada Subbab 4.1.2.

5.2 Saran

Beberapa saran untuk pengembangan penelitian lebih lanjut sebagai berikut :

1. Menggunakan kereta simulator dan disambungkan dengan Matlab agar pergerakan kereta dapat ditampilkan secara *real time*.
2. Mengoptimalkan jarak aman antar rangkaian kereta dengan menentukan jarak aman antar rangkaian kereta secara dinamis berdasarkan algoritma kontrol sinkronisasi.

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