BAB V
KESIMPULAN DAN SARAN

5.1 Kesimpulan

Penelitian ini berhasil mengidentifikasi dan mengimplementasikan metode optimasasi Physical Tuning pada badspot jaringan LTE telkomsel di jalur kereta Bandung-Rancaekek. Hasil optimasi menunjukkan peningkatan pada 3 parameter kualitas layanan yaitu RSRQ dengan peningkatan luas sebesar 37 persen, RSRP dengan peningkatan sebesar mean 6,2 pada badspot, dan SINR sebesar 3,9 dB. Namun hasil optimasi menunjukkan bahwa kinerja layanan LTE pada badspot belum meraih target KPI. Penelitian ini juga menekankan pentingnya physical tuning untuk membuat hasil performansi secara optimal pengguna KAI Bandng-Rancaekek. Hasilnya, peningkatan kualitas layanan ini berkontribusi terhadap peningkatan keandalan jaringan.

5.2 Saran

Penelitian Lanjutan pada Jalur Lain Sebagai langkah berikutnya, disarankan untuk melakukan penelitian serupa pada jalur kereta lain di Indonesia yang memiliki karakteristik geografis dan kepadatan penumpang yang berbeda. Penelitian ini akan membantu dalam mengembangkan strategi optimasi yang lebih komprehensif dan sesuai dengan kondisi lokal, sehingga dapat diterapkan secara lebih luas di seluruh jaringan kereta api nasional.

Pengembangan Teknologi LTE yang Lebih Canggih Untuk memastikan keberlanjutan dan peningkatan kualitas layanan di masa depan, disarankan untuk terus mengembangkan dan mengadopsi teknologi LTE yang lebih canggih. Penelitian lebih lanjut diperlukan untuk menguji dan mengimplementasikan teknologi seperti agregasi carrier yang lebih efisien dan teknik optimasi jaringan berbasis AI untuk lebih meningkatkan efisiensi dan kinerja jaringan di lingkungan yang dinamis seperti jalur kereta api

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