

DAFTAR ISI

| | |
|--|----|
| ABSTRAK | i |
| DAFTAR ISI | ii |
| DAFTAR GAMBAR | iv |
| DAFTAR TABEL | v |
| DAFTAR SINGKATAN | vi |
| BAB I 1 | |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 2 |
| 1.3 Batasan Masalah | 2 |
| 1.4 Tujuan Penelitian | 3 |
| 1.5 Metode Penelitian | 3 |
| 1.6 Sistematika Penulisan | 4 |
| BAB II 5 | |
| 2.1 Overview LTE-Advanced | 5 |
| 2.2 Arsitektur Jaringan ^[4] | 5 |
| 2.3 Heterogeneous Network ^[6] | 7 |
| 2.4 Enhanced Inter-Cell Interference Coordination | 9 |
| 2.5 Planning by Coverage ^[13] | 11 |
| 2.5.1 Jari-jari Sel | 14 |
| 2.5.2 Jumlah Sel Berdasarkan Planning by Coverage | 14 |
| 2.6 Capacity Planning ^[13] | 15 |
| 2.6.1 Forecasting Jumlah Pelanggan | 15 |
| 2.6.2 Perhitungan Network Throughput | 16 |
| 2.6.3 Perhitungan throughput per cell | 19 |
| 2.6.4 Perhitungan Jumlah Sel | 20 |
| BAB III 21 | |
| 3.1 Model Sistem | 21 |
| 3.2 Diagram Alir | 23 |

| | | |
|-----------------------------|--|-----------|
| 3.3 | Daerah Tinjauan dan Spesifikasi Perangkat | 24 |
| 3.4 | Konfigurasi Parameter jaringan..... | 25 |
| 3.5 | Analisis Site Existing..... | 26 |
| 3.6 | Coverage Planning Pico Cell | 26 |
| 3.6.1 | Link Budget Downlink..... | 27 |
| 3.6.2 | Link Budget Uplink..... | 28 |
| 3.6.3 | Perhitungan Jari-jari Pico Cell..... | 29 |
| 3.6.4 | Perhitungan Luas Sel Pico..... | 30 |
| 3.7 | Capacity Planning Pico Cell | 30 |
| 3.7.1 | Perhitungan Kebutuhan Throughput Sistem | 31 |
| 3.7.2 | Capacity Dimensioning Berdasarkan Data Traffic..... | 32 |
| 3.8 | Konfigurasi Metode eICIC | 33 |
| BAB IV | | 35 |
| 4.1 | Pendahuluan | 35 |
| 4.2 | Penempatan Site | 35 |
| 4.3 | Analisis Simulasi Coverage by Signal Level | 36 |
| 4.4 | Analisis Simulasi Carrier to Interference and Noise Ratio (CINR) Level | 39 |
| 4.5 | Simulasi Throughput dan User Connected..... | 41 |
| 4.6 | Hasil Simulasi Secara Keseluruhan..... | 44 |
| BAB V | | 49 |
| 5.1 | Kesimpulan | 49 |
| 5.2 | Saran..... | 50 |
| DAFTAR PUSTAKA | | 51 |