

## ABSTRACT

Increasing the number of 3G network users to low impact on network performance. In the area Ujung Berung Cileunyi decrease in network performance often occurs by several factors include, coverage and quality.

The final project is the optimization of 3G network performance in the Ujung Berung Cileunyi. Methods drive test is a way to get data 3G network conditions. Software used in the test drive is Nemo Analyze 5, which serves for data processing, to measure the parameters of KPI (Key Performance Indicator), RSCP and  $E_c / N_0$ .

Results that accepted after the optimization process is the increased quality UMTS network in the area Ujung Berung Cileunyi. Based on the results obtained UMTS network quality measurement standards of success parameter values RSCP,  $E_c/N_0$ , and Throughput respectively for 90% of the value of RSCP  $< 0$  to  $\geq -70$  dBm, 80% to the value of  $E_c/N_0 > -12$  to  $< 0$  dBm, and 90% to the value of throughput  $\geq 512$  kbps. Meanwhile, after the implementation of optimization be changed, with the value of the parameter RSCP and  $E_c/N_0$ , 99.92% to the value of RSCP  $< 0$  to  $\geq -70$  dBm, and 72.28% to the value of  $E_c/N_0$  is  $> -12$  to  $< 0$  dBm.

Keywords: Optimization, RSCP,  $E_c/N_0$ , Throughput and KPI