

## **ABSTRACT**

*Wherever and whenever communication is always required either for business or just related with family. The increasing of network users Indosat 3G, have an impact on network performance. In the electric train often occur declined of performance network. Therefore we need a process of optimization techniques by taking into the values of data and voice services that must comply with standards that has been established.*

*this Final Project, will be measure the quality of the 3G network using the drive test method.. These measurements were performed using software TEMS Investigation 16.3.4. For the case study track In this Final Project is electric train track, Kebayoran - Parung Panjang. The results in this measurement will performed the analysis, if found an issue then do optimization in that area. Optimization results will simulated using software Atoll 3.2.1.*

*Based on the analysis of problems, the bad coverage\_1 is one that has a value ranging simulation before -130 dBm to -90 dBm and -95 dBm range after simulation to -85 dBm. And than for problem simulation before bad quality\_1 ranges from -30 dB to -12 dB, and after simulation ranges -9 dB to -2 dB. For the problem of low throughput average amount of success before the simulation is 90.04% RSCP and Ec / No 98.55%, the average amount after the successful simulation is 94.86% RSCP and Ec / No 99.356%.*

*Keywords : Drive Test, Optimization, RSCP, Ec / No, Throughput*