

## ABSTRACT

*Based on the results of the survey and Walktest using the Telkomsel operator network at the Orchid Building Hasan Sadikin Hospital, Bandung, it was produced that the value of the LTE network parameters obtained was not good and different from the quality of Indoor networks in other buildings in the area of Hasan Sadikin Hospital. This is also reinforced by data from the OSS operator Telkomsel which shows that the level of data service traffic in the existing IBC and Outdoor networks in the area of Hasan Sadikin Hospital is quite high. In the Anggrek Building, the potential number of users is quite high, but it has not been installed by the LTE Indoor network in the building.*

*In this final project planning and analysis of the LTE Indoor network at Gedung Anggrek Rumah Sadikin, Kota Bandung. By comparing the scenarios using the Distributed Radio System (DRS) and Distributed Antenna System (DAS) methods to be able to improve the quality and capacity of the LTE network in the Building. This planning simulation will be carried out using IBWave Design 7.1 software by taking into account the RSRP, SINR, and Datarates.*

*Based on the simulation results of the indoor LTE network planning with Lampsite technology, it can reach an average RSRP parameter value of -79.22 dBm to -77.49 dBm for each floor. Whereas the SINR parameter can reach an average value of 22.77 dB to 24.31 dB for each floor. Meanwhile, for the Datarates parameter it can reach a maximum of 70.21 Mbps. Based on several parameters the results of this simulation have reached the KPI standard target of Telkomsel operators so that it is expected to improve the quality and capacity of LTE services in Hasan Sadikin Hospital Building, Bandung City.*

**Keywords:** *Potensial User, LTE Indoor, RSRP, SINR, Datarates.*