ABSTRACT

Mobile usage needs with high frequencies in order to improve the service. LTE had speeds of up to 100 Mbps, but only on the development of urban areas. Then it takes the backhaul to reach remote areas with efficient use of capacity, transmission, and implementation. Wifi backhaul is used because faster implementation compared to fiber optic. On the design of LTE networks with wifi backhaul with 2.4 GHz frequency, LTE eNodeB with 6 parameters retrieved Refereced Signal Power (RSRP) is obtained by averaging the median – registration-68.61 dBm Intereference and Signal To Noice Ratio (SINR) with an average simulation of 10.81 dB. The results of the design using backhaul wifi 802 .11n 2.4 Ghz frequencies obtained the value of simulation availability of 99.9937294% and the value of the RSL on the simulation obtained average – average value of the dBm -55.39 greater than receiver sentivity -62.5 dBm. results obtained with getting a good signal quality

Keywords: LTE, Wi-Fi 802.11n, Backhaul, Rural