ISSUES AND CHALLENGES OF LTE ANTENNA DESIGNS FOR USB DONGLE DEVICE

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ACKNOLEDGEMENT

In the name of Allah S.W.T, the most beneficial and the most merciful, it is with deepest serve gratitude of the Al-Mighty that gives strength and ability to complete this project.

I would like to take this opportunity to express my greatest thankful to my project supervisor, Pn. Norhayati bt Hamzah for her guidance, advices, supervision, encouragement and faith to me in accomplishing this project.

Finally, I would love to say thanks to my beloved family for their support and unending prayers and also to my beloved friends for their understanding directly or indirectly in successful completion of my project.

ABSTRACT

This thesis focuses on the design, model and the simulation of microstrip patch antenna which involves two antennas, planar antenna and planar inverted-f antenna. The specification for the proposed patch antennas is it has a frequency of 2.6GHz, FR4 substrate, an epsilon of 4.5, a substrate thickness of 1.6mm and copper thickness of 0.035mm. The simulation was done using CST Microwave Studio 2012 software. Comparative study of simulated parameters like return loss, directivity, bandwidth, and the radiation patterns were analyzed and presented in this paper. The results collected were to determine which of the antennas have the better potential of being implemented for Long Term Evolution (LTE) use.

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