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Dissertation submitted in partial fulfillment of the requirements for the Master of Science in Telecommunication and Information Engineering

Faculty of Electrical Engineering

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ACKNOWLEDGEMENTS

Assalamualaikum w.b.t

First and foremost, I would like to praise Allah for His blessing. He gave the physical and mental strength to carry on my final year project up to completion. Final year project is a subject for final year student and this subject will help student to apply their skill and knowledge by hands-on, which gained from the lecturer. During the completion or implementation of this project, student will face several problems. As the engineer, the most important is to be technically strong as well as good in analysis and problem solving method skill through hands-on opportunity.

I wish to express my appreciation for my project supervisor, Prof Madya Dr Mohd Tarmizi Ali for his excellent supervision, advices, suggestions, and comments throughout the completion and implementation of this project.

Finally, my deepest gratitude goes to my family members for their constant support, encouragement and prayer. Not forgetting all my friends in this master part time class for their help that directly and indirectly contributed to the accomplishment of this project.

ABSTRACT

This paper presents the design, simulation, fabrication and analysis of balance coaxial feed and unbalance coaxial feed microstrip patch antenna with slot for wireless application. The antenna designed was created in Computer Simulation tool (CST) version 2011. This antenna can be applied for 3G and 4G frequency spectrum bands. The simulated frequency of balanced coaxial feed antenna was at 2.6 Ghz, while for unbalance coaxial feed antenna was simulated at range of 1GHz to 3GHz. The analysis was done for the balance coaxial feed antenna in which only single frequency was resulted. Then, the position of the coaxial feed was changed to the unbalance coaxial feed, hence the antenna became a multiband microstrip patch antenna. For better result of the return loss and frequency, some slots were added to the microstrip patch antenna and the designed were compared and analyzed. The performance of the antenna was studied in terms of return loss, radiation pattern and half-power beamwidth (HPBW).

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