## **ACKNOWLEDGEMENTS**

I would like to take this opportunity to express my sincere gratitude to everyone who has directly or indirectly contributed to this work. The following list, by no means exhaustive, is an attempt to acknowledge at least a few of them.

First and foremost, I would like to express my gratitude to my supervisor Prof. Dr. Kaharudin Dimyati for his guidance and patient throughout the research period. I would also like to express my heartfelt appreciation to every personnel in the Post-Graduate Office, Department of Electrical Engineering, Faculty of Engineering and the Photonic Research Center for their unconditional help.

Last but not least, I would like thank my parents and family, who are always there, praying for my well-being and happiness, for their pivotal and precious role in my life.