

ACKNOWLEDGMENT

This thesis could not have been completed without the assistance and support of several individuals, including professors and friends. I would like to express my gratitude to the following individuals:

First and foremost, I would like to extend my heartfelt thanks to Prof. Dr. Rendy Munadi for his guidance and support throughout the research from its inception.

I also want to express my appreciation to my second supervisor, Dr. Nachwan Mufti Adriansyah, for his invaluable guidance that contributed to the completion of this thesis.

I would like to convey my profound gratitude to Niken Salma Nabila, S.T., my wife, also my Mother for their unwavering support during the thesis writing process.

I am grateful to all the faculty members and staff in the Electrical Engineering Master's Program who provided assistance and guidance throughout my graduate studies.

My heartfelt appreciation goes out to all my relatives and friends who supported me throughout the writing of this thesis, even though I may not have mentioned all of them individually.

I also wish to express my appreciation to everyone who contributed to the completion of this research, both directly and indirectly.