ACKNOWLEDGEMENTS

During the preparation of this writing the author received a lot of help and guidance both morally and materially from various parties so that this writing could be completed properly. On this occasion the author expresses his deepest gratitude to:

- Prof. Dr. Rendy Munadi, as thesis supervisor who sincerely guided the author to complete this writing;
- 2. Dr. Nachwan Mufti Adriansyah, S.T., M.T., as thesis supervisor who sincerely guided the author to complete this writing;
- 3. M. Irfan Maulana S.T., M.T., as a journal advisor who sincerely guided the author to complete this writing;
- 4. All lecturers and staff of the Faculty of Electrical Engineering, Telkom
 University who have helped the author during his education at the
 Faculty of Electrical Engineering, Telkom University;
- 5. To the author's parents, younger siblings, and all extended family members who have never stopped offering their prayers, encouragement, and motivation, inspiring me to stay enthusiastic and never give up in pursuing my education;
- 6. Enny Suryanti, my beloved partner, who has always been there to support, accompany, and motivate the author, even through late nights working on this thesis;

7. All parties who have provided support to the author during the process of studying at the Faculty of Electrical Engineering, Telkom University.