## **ACKNOWLEDGMENT**

With profound gratitude, the author would like to extend thanks to all those who have provided support, guidance, and motivation throughout the writing of this thesis. Without their assistance, this thesis would not have been completed successfully.

First and foremost, the author would like to express heartfelt thanks to:

- 1. **Kris Sujatmoko, S.T., M.T.**, as the first Guardian Lecture, for his invaluable guidance, direction, and patience during the process of writing this thesis. His insightful feedback was crucial in completing this research.
- 2. **Thomhert Suprapto, S.T., M.Eng., Ph.D.**, as the second Guardian Lecture, for his comprehensive guidance and profound knowledge which greatly contributed to the development of this research. His encouragement was immensely beneficial.
- 3. **Dhoni Putra Setiawan, S.T., M.T., Ph.D.**, as the academic advisor for class TT 44 INT, for his academic guidance and support throughout the course. His dedication and attention were greatly appreciated during the writing of this thesis.
- 4. **Fardan, S.T., M.Sc.**, as the academic advisor for class TT 44 11, for his assistance and support. His advice and guidance were instrumental in the completion of this thesis.
- 5. **Classmates**, for their camaraderie and support throughout the course. Their cooperation and encouragement were invaluable during this journey.
- 6. **All teaching staff**, for their dedication and commitment. Their contributions to the academic environment were essential in the development of this research.

Lastly, the author extends gratitude to family and friends for their constant support and motivation. May all the assistance provided be rewarded and serve as a blessing. The author hopes this thesis will be a useful reference and contribute positively to future research.