

DEDICATION

This thesis is compiled with the support of my family. I praise to Allah SWT who has provided ease, smoothness, and pleasure in this journey and express my deepest gratitude to all who have helped, guided, and supported this work. I dedicate this work to my beloved parents, Mr. Syaiful and Mrs. Devie, who always pray for me. My dear siblings, Helmi and Khansa. Also, my entire extended family, and all the people around me whom I love and cherish.

Finally this thesis is dedicated to all informatics students in the world. I hope that this research may provide valuable contribution in Computer Science.