

Acknowledgment

Firstly, I would like to give my greatest gratitude to my former advisor Asst. Prof. Dr. Matthew N. Dailey and current advisor Asst. Prof. Dr. Bunyarit Uyyanonvara for their invaluable contribution to my research and thesis. I have successfully completed my research, this thesis and all requirements for my masters degree because of their guidance, support and encouragement. They are my source of knowledge and wisdom.

I also would like to express my appreciation to my thesis committee members Assoc. Prof. Dr. Stanislav S. Makhanov and Dr. Toshiaki Kondo for their helpful support, suggestions and comments on my research. Their suggestions and recommendations helped me to have good progress on my thesis.

I am very grateful to Assoc. Prof. Dr. Thanaruk Theeramunkong, head of the School of Information and Computer Technology (ICT), for his kind advice, the knowledge and experiences he shared with. Throughout my study, the staff at SIIT, especially the secretaries of the School of ICT, have helped me with all official paperwork. So, I would like to appreciate their contributions here.

Then, I also would like to thank Sirindhorn International Institute of Technology (SIIT) for providing me with a teaching assistant scholarship, not only waiving all of my tuition fees but also giving me a chance to earn my living expenses.

During my study here in SIIT, my colleagues have created a pleasant atmosphere for me with their friendly company, helped me to pass over hardship with my study, and shared experiences they had in doing research. Therefore, I would like to thanks my colleagues for everything they have done for me. Here, special thanks is given to Ms. Akara Sopharak, Mr. Sakib Jalil and Mr. Yoichi Nakaguro for their great help during data collecting.

Last, but not least, I would like to give enormous thanks to my father, mother and all family members for supporting me with their love and care.