ACKNOWLEDGEMENTS

For the achievement of my thesis, I would like to express my gratitude to this following person:

The first, I was extremely grateful to Associate Professor Dr. Sura Pattanakiat, my major-advisor, who did not only counsel me to work on this thesis but also gradually develop my practical skills. Besides, many excellent suggestions from Associate Professor Dr. Parkorn Suwanit and Associate Professor Dr. Dokrak Marod were also attributed to success of this thesis.

Next, I would like to appreciate the Office of National Research Council of Thailand for research fund. I would like to thank Geo-Informatics and Space Technology Development Agency (Public Organization) for satellite imageries. I would like to thank Land Development Department of Thailand for soil data and land use data. And, I also would like to thank Thai Meteorological Department for rainfall data and temperature data.

Especially, I would like to thank Mr. Kitsanai Charoenjit, Miss Sureerat Khongsanun, Mr. Navavit Ponganan, and another GIREN's staff for their helpful about using program for my thesis. Besides, I would like to thank librarian for your services and kindness in library. I also had to express my thanks to my friends at Mahidol University for everything in my life.

Finally, I would like to many and special thank to my family for their infinite love, understanding, financial supporting and giving the best opportunity to my life.

Ultimately, I thank you – the reader – who are reading this thesis. I would be absolutely delighted to know that this thesis could distribute the valuable knowledge to many people beyond my estimation.