

## **ACKNOWLEDGEMENTS**

The author wishes to express profound gratitude and deepest appreciation to his academic supervisor, Dr.Suttisak Soralump for his sincere invaluable guidance, continuous encouragement and kind attention throughout thesis period. Sincere appreciation is extended to Dr. Warakorn Mairaing and Dr. Suneerat Kusalasai for their very useful suggestions related to this research and for serving on the thesis committee.

The author would like to express sincere thanks to the Geotechnical Engineering Research and Development Center (GERD), Department of Civil Engineering and Department of Mineral Resource. Sincere appreciation is also expressed to Mr.Bunpoat Kunsuwan for the rainfall analysis data and to Mr.Worawat Thowiwat for the laboratory data. Words of thanks are given to Ms.Mananya Chantasorn for her support about GIS knowledge and to Mr.Sirisartra Youngsanphu for his support about geological data.

The author would like to express sincere thanks to the organizing officials and to Ms.Arunee Riandara for the organizing of the author's course of study throughout the Master of Engineering at the International Graduate Program in Civil Engineering, Kasetsart University. Furthermore, special thanks are provided to Mr. Tony SweetApple of Faculty of Humanity, Kasetsart University for investigating English of this research paper.

Finally, the author wishes to express his gratitude to his beloved parents and sisters for their invaluable support and continuous encouragement and with due respect, the author dedicates this work to his beloved family.

Damrong Pungsuwan

September 2006