

ACKNOWLEDGEMENTS

The author wishes to express her profound appreciation and gratitude to her advisor, Dr. Somnuk Tangtermsirikul, for his continuing encouragement and invaluable guidance and kind support which aided her tremendously in working towards the successful completion of her thesis. His indefatigable and strong intention is mostly appreciated. This work could never have been accomplished without his outstanding guidance. The author is also truly grateful to her advisor and Sirindhorn International Institute of Technology (SIIT), Thammasat University for offering the financial support in form of teaching and research assistance.

Sincere appreciation and gratitude are contributed to committee member, Dr. Winyu Rattanapitikon, and external committee member, Dr. Suvimol Sujjavanish, for devoting their valuable time to serve as members of the Examination Committee.

Thanks are expressed to the Electricity Generating Authority of Thailand (EGAT) for granting Mae-Moh fly ash used in this research.

Honest thank is also conveyed to Mr. Theerasak Kaewkhluab, Mr. Jittbodee Khunthongkaew, Master Degree students, Ms. Warangkana Saengsoy, Mr. Nattapon Saengkhao and Mr. Chalermchai Wattanaloemlerd for numerous information and their effort to assist her thesis.

Special thanks are also given to secretary of the Civil Engineering Program, Sirindhorn International Institute of Technology, Ms. Cholthicha Pradidkwan for many helps.

Finally, the author sincerely dedicates this work to her beloved parents for their tenderness and encouragement for her study and best support in all of her life.