ACKNOWLEDGEMENT

It gives me great pleasure to have the opportunity to thank the people who helped me during the thesis work and my related studies. I extend my deep sense of gratitude to all those who provided selfless support to come up with this thesis. I would like to record my gratefulness to:

Dr. (Tmt.) Cynthia Pandian, Vice-Chancellor, and Dr. P. Chellathurai, Registrar, Manonmaniam Sundaranar University for having given me consent to pursue this degree and Dr. M. Ramakrishnan, Research Coordinator for his support during the course of my research work.

Rev. Dr. A. Antonysamy, S.J., my Guide and supervisor for his valuable suggestions, excellent guidance, cheerful encouragement, constructive comments, amicable approach and motivation that enabled me to progress in the right path and far beyond. Without his progressiveness, numerous suggestions and immense knowledge, the thesis would never have been completed. Words are inadequate to express my genuine gratitude to him for letting me very often take up his precious time.

Dr. T. Tamizh Chelvam, my Co-guide for his constant encouragement, useful comments and appraisal right from the beginning throughout every step during my course of research and for his worthy reviews and suggestions in shaping this thesis.
Dr. N. Arunachalam, Controller of Examinations, Dr. V. Sadasivam, Professor and Head of the Department of Computer Science and Engineering for having given me indispensable support during my research; Dr. P. Alphonse Rajendran, the former Controller of Examinations, Dr. (Tmt.) S. Thamarai Selvi, for having instigated the research inquisitiveness in me.

My colleagues at the Computer Centre (Exams) and the Department of Computer Science and Engineering, for their constant support and help offered.

My parents. Late Capt. Mathavan Victoria, and Tmt. Selvi Victoria who taught me first to see, understand and live in this world.

My husband Dr. T. Francis for his incessant backing and eternal encouragement and my children F. Freddy and F. Shoshanna for their sacrifices, prayers and for keeping my living space peaceful and harmonious.

Mr. CT. Kannan, ABHI DTP, Tirunelveli for the neat execution of the thesis.

And to the anonymous reviewers for their careful reading and comments.

ANTONY PERPETUA SANTHINI