ACKNOWLEDGEMENT

My sincere gratitude and appreciation go to my Supervisor Dr.T.Tamizh Chelvam, Professor and Head, Department of Mathematics, Manonmaniam Sundaranar University for his precious help, continuous encouragement and wise guidance during my research work. Without his contribution, I would never have reached the goal of my doctoral program.

I am grateful to Dr.B.Dandi, Dr.M.Viswanathan, Dr.S.Suresh and other clinical experts who have helped me by providing their expert guidance in analysis and their opinion about the test cases essential to this study.

I would like to take this opportunity to express my sincere appreciation to The Vice-Chancellor and The Registrar, Manonmaniam Sundaranar University for their kind support during this research. My thanks also to all members of Computer Science and IT Departments and my friends in Manonmaniam Sundaranar University, Tirunelveli for their support and suggestions.

Acknowledgement must also be extended to my mother and family members who never forgot to support and pray for the successful completion of my study. Special thanks to my wife D.Shanthi, M.E., for her constant encouragement and for sharing knowledge during the study to improve the quality of the research work. To my children, Sri Nandhini and Usha Varshini, please accept my very special thanks. Their love, compassion and understanding have always been in my deepest heart. I could never have successfully completed this task without their sacrifices.

Above all, praise to the Almighty God, who created and sustains us and who is The Ultimate One who has made the accomplishment of my mission of study possible.