ACKNOWLEDGEMENTS

First of all I would like to thank my Parents for showering their blessings upon me to pursue this research work. The words cannot describe their role in my life, I cannot think of living without their love and care without which I could not have carried out this research.

With a deep sense of gratitude, I express my sincere thanks to my esteemed and worthy supervisor Dr. R. S. Rajesh, Associate Professor, Department of Computer Science and Engineering, Manonmaniam Sundaranar University, Tirunelveli for his immense help, valuable guidance, effective supervision, stimulating suggestions and encouragements at all times while carrying out this research work. He always provided a motivating and enthusiastic atmosphere to work with; it was a great pleasure to carry out the research work under his supervision. His everlasting energy and enthusiasm in research motivated all his advisees, including me.In addition he is always accessible and willing to help his students in their research.

I gratefully express my sincere thanks to our former Vice-Chancellor Dr.Sabapathy Mohan for his continuous support, encouragement and for making it possible to complete the submission of the thesis in time.

I am very thankful to Dr. V. Sadasivam, Professor and Head, Department of Computer Science and Engineering, Manonmaniam Sundaranar University, Tirunelveli for providing me necessary facilities in the department to carry out this research without any hardship.

It is my pleasure to express my gratitude wholeheartedly to the Research Coordinator, Manonmaniam Sundaranar University and the staff members of the Research Section of Manonmaniam Sundaranar University to timely process the research related tasks.

I especially want to thank all the Faculty Members and Administrative Staffs of the Department of Computer Science and Engineering, Manonmaniam Sundaranar University, Tirunelveli for their help, encouragement, support and cooperation. Also I extend my thanks to all the lab cronies at the Department of Computer Science and Engineering who made it a gracious place to carry out this research.
In particular, I would like to thank Dr.S.R.Venkateshwaran, Professor and Head, Department of Surgery, BHEL Hospital, Trichy for providing clinical datasets for appendicitis and for his motivation, ideas and moral support while pursuing the research.

I also extend my sincere thanks to all the Research Scholars of the Department of Computer Science and Engineering, Manonmaniam Sundaranar University, Tirunelveli.

My deepest gratitude to my Brothers and my Family members for their support, concern and love which made me to successfully complete this research.

I deeply thank the MEPCO Schlenk Engineering College, Sivakasi, National Institute of Technology, Trichy and BHEL Hospital, Trichy for their immense support in my research work.

Last but not least I am indebted to all my Friends and Relatives to support me. And to the rest, whom I failed to mention, I thank all of them for their prayers and good will. Finally I offer my regards and blessings to all of those who supported me in all respect during the completion of this research.

E.Sivasankar