ACKNOWLEDGEMENT

Gratitude is not only the greatest of virtues, but the parent of all others.
... CICERO

A journey is easier when you travel together. Interdependence is certainly more valuable than independence. This thesis is the result of four and half years of work whereby I have been accompanied and supported by many people. It is a pleasant aspect that I have now the opportunity to express my gratitude for all of them. This is an impossible task, given the many people who have helped to design, implement, apply, criticize, sponsor and evangelize the work. I am going to try anyway, and if your name is not listed, rest assured that my gratitude is not less than for those listed below.

The first person I would like to thank is my research supervisor Dr. P. Nagabhushan. I have been with him for the past 5 years. During these years I have known Dr.P.N as a sympathetic and principle-centered person. His overly enthusiasm and integral view on research and his mission for providing “only high-quality work and not less”, has made a deep impression on me. I owe him lots of gratitude for having shown me this way of research. He could not even realize how much I have learned from him. Besides of being an excellent supervisor, Dr. P.N was as close as a relative and a good friend to me. His trust and scientific excitement inspired me in the most important moments of making right decisions and I am glad to have worked with him. I am really glad that I have come to get know Dr. P.N in my life. A special thanks to my friends Jagdish Prabhu and Harsha for having introduced me to Department of Studies in Computer Science, University of Mysore.

As there is no duty more obligatory than the repayment of kindness, I express my sincere gratitude to Dr.P.N’s family, Mrs. Lakshmi Bhushan and Miss. Poornima for all their kindness and for regarding me as one among them when I stayed in their home during the last phase of this research work. I would like to thank Mrs. Bhushan for her constant encouragement and for gently persuading me towards finishing my thesis.

I would also like to thank all the faculty members at UOM who kept an eye on the progress of my work and were always available when I needed their support. I would like to thank Dr. D.S.Guru, Dr. G.Hemant Kumar and Dr. Lalitha for providing me advices and tips that helped me a lot in staying at the right track.
My fellow researchers at UOM also substantially contributed to the development of this work. Especially the discussions and the interactions with Angadi, Bajantri and Shekar had a direct impact on the final form of this thesis.

A special thanks to Kishore and Shridar who immediately heeded to any system related requests of mine and to all administrative staff of DoS in CS, UOM for their wholehearted support.

I wish to thank Dr. SathyaSaiPrakash, Amrita University for being a true friend and an extraordinary source of advice. I would also like to thank Dr. S. Subramanian (Sri Krishna College of Engineering and Technology, India), Dr. P. Venkatrangan (Amrita University, India) and Dr. Bharat Jayaraman (University of New York, Suny Buffalo, USA) for their encouraging and heartening words.

I would like to thank my parents Mr. and Mrs. B. Raman for their patience and sacrifice in making me what I am today. My father has always been a persistent inspiration for my journey in this life. I believe I owe deepest thanks to all people in my entire family who have supported me since I was born.

My in-laws Mr. and Mrs. Thandapani deserve a warm and special acknowledgement for their love, care and moral support. My father-in-law’s sense of humor has been of great help in overcoming many of the difficulties which arose throughout my doctoral program.

As always it is impossible to mention everybody who had an impact to this work, I gratefully thank all of them.

Last, but not the least, Punitha is certainly the main contributor of all the best in my life, including this thesis. I thank God for the extraordinary chance of having her as wife, friend, companion, and even reviewer of this thesis. I want to thank my wife for all the support that she gave me during the years I have been working on this thesis, especially all the holidays that she arranged to give me time to write, to think and to talk to her about this subject. Had I written this last paragraph myself, I couldn’t have put it any better.