Acknowledgment

This thesis is the outcome of direct and indirect co-operation, help and guidance of many people, the list is too big for one page acknowledgment.

At the very outset, I express my respect to my supervisor Prof. Atal Chaudhuri. Prof. A. Chaudhuri acted not only as my thesis adviser but also as my guide for all aspects during this period. His attitude towards tackling any problem made me change my attitude towards problem solving. I express my sincerest gratitude to Prof. A. Chaudhuri for teaching me the value of being sincere and organized in research and in life.

Almost in the same breath, I would like to express gratitude to my other thesis supervisor Dr. Niloy Ganguly. He has been my sounding board. Niloyda helped me whenever I need him, in not only settling down to the problem but also lent very crucial support to me during this long period. I must confess that without the cerebral contribution of him the thesis would not have taken shape.

Prof. P. Pal Chaudhuri, our group leader had provided me with a wonderful group and taught me what academics is all about. He has changed my attitude towards academics during this period. I am rendering my respect and regards to him.

I am very much grateful to Late Prof. P. K. Nandi of Computer Science & Technology, B. E. College, in every respect for his constant support.

I would also like to record my sincere gratitude and appreciation to faculty members and technical staffs of Jadavpur University, B. E. College & Techno India (TI) for providing me necessary support and infrastructure.

I am also grateful to Mr. T.K.Ghosh, Prof. Dhruba Basu, Prof. Amitava Sinha and Prof. Krishnendu Chakraborty of Techno India for their time to time co-operation.

I also like to thank my junior co-researchers Anirban, Srirupa, Debmalaya. They are really wonderful to put in record.

I would also like to record my heartfelt thanks to other members of my group, Pradipta, Saurav, Chandrama and Sukanta.

I received immense help from a number of students, Arjita and Dibyendu from B.E. College and Sayan and Samantak from Jadavpur University are among those.
Sudip was a constant source of support for all my endeavors. In fact, he is my greatest critic and my most ardent fan. His constant encouragement has made it possible for me to complete this thesis. Didi and Tina were my twin tower of strength. Finally my sincere respect goes for my parents, whose constant blessings have made it possible.

Jadavpur University
Dated:16th April, 2007

Monalisa Banerjee (Mukherjee)