Acknowledgement

It will be difficult to be fair in the order of acknowledgement. There are many people who have directly or indirectly helped me in carrying out this thesis work. To all of them, I am obliged.

My biggest and sincere thank to the supervisor Prof. Aditya Shastri, Vice Chancellor, Banasthali Vidyaptih, for his supports and encouragements. Prof. Aditya Shastri has always been there to see my work and give me advice. I always admire his knowledge and leadership.

I would like to thank my co-supervisor Dr. Kusum Gupta, Associate Professor, Banasthali Vidyaptih, Jaipur Campus, for her able supervision, keen advice and encouragement. She has always been ready to listen and to give advice. Her continuous support was the most helpful to me during the course of this thesis. Without her support and encouragement I could not have completed this thesis.

This work would not have been possible without the excellent facility AIM & ACT and the academic environment of Banasthali Vidyapith. I express my heartfelt thanks to our beloved dada Prof. Diwakar Shastri, Prof. Chitra Purohit, and Shri Hiralal Mittal.

I express my gratitude to late Prof. Rekha Govil, ex. Dean, AIM & ACT, for her mentorship right from the beginning of this research work, framing of the research problem to the finalization of the synopsis. She has been a constant source of inspiration and provided the most important input during the progress of this study.

I thank to Prof. G.N. Purohit, Dean (AIM & ACT), Dr. C.K. Jha, Head (Computer Science), Dr. Deepa Sinha, Dr. Vikas Pareek, Dr. Ashish Shanker, Dr. Gauri Shanker, Dr. Ghanshyam Sharma, Dr. Saurabh Mukherji, and Shri P. K. Rai for their valuable inputs.
I am also grateful to Shri Devi Sahai, Shri Lalit Jain, Shri Mahesh Joshi, Shri Ashish Verma, Shri Rajnish Thareja, Shri Ravindra Sharma, and the other technical staff of the Apaji Institute for their kind co-operation. Thanks to all of my friends who helped me in the progress of my work.

Finally, I acknowledge that this work could not have been possible without the blessing of my mother Smt. Kanti Devi and father Shri SheoShanker Sharma. I also thank my wife Sushila Sharma, son Rajat Sharma and Mohit Sharma for all the love and support received through all my activities. Their endless patience has been truly inspirational. Thanks will never sufficient.