ACKNOWLEDGEMENTS

As a firm believer in the powers and blessings of the **ALMIGHTY GOD**, I firmly believe that it is **Lord Krishna** who has done this gigantic task as he is 'karta- the doer' of everything and whose wishes run supreme to any action or happening in the known and unknown spheres of universe. I certainly feel blessed that my sincere, often heart touching and tear-some prayers have been answered by his presence which I feel was more pertinent during my long hours of work. I personally attribute it as a single point source from whom I have drawn inspiration from.

In pursuing my Ph.D., I have received contributions, help and support from a number of friends, associates, researchers, and my dear students. I would express my sincere gratitude and appreciation to all of them.

I convey my sincere thanks **Dr. Apurva Shah**, my research supervisor for giving me an opportunity to take up the research work under his supervision, helping me in all phases of the research work, providing sound encouragement and guidance throughout this journey. I with all sincerity bow and express my gratitude for his scholarly, inspiring, incessant, painstaking efforts and patronage. As my supervisor and mentor, **Dr. Apurva Shah** has really provided thoughtful and constructive feedback in improving my research work and the research thesis. In spite of his many responsibilities and other commitments, he has helped me at all the odd times to accomplish this research successfully. I am extremely thankful to him, for the technical guidance, help and conveniences provided to me for successful completion of my thesis and research work.

I would like to thank **BVM Family** and **MSU Team** for giving me the opportunity, facilities and inspiration to complete this thesis on time. Sincere thanks to the executives and management of BVM, CVM and MSU who placed their faith in my ability to deliver innovative research and who stood with me, when I needed them.

I express my special thanks to **Dr. Anjali Jivani,** Head and Associate Professor, CSE Department, Faculty of Technology & Engineering, The Maharaja Sayajirao University of Baroda, Vadodara and **Dr. Viral Kapadia,** Assistant Professor, CSE Department, Faculty of Technology & Engineering, The Maharaja Sayajirao University of Baroda, Vadodara for positively criticizing the work and sparing his time by giving valuable comments and suggestions for the betterment of

this work. I also thank **Prof. Vishwas Raval and Dr. Amit Thakkar** for providing me with timely inputs and helping me overcomes the teething problems.

"The essence of Bhagavat Gita lies in man's devotion to work and service to mankind. If this is ensured, rest all follows". I found it true in **Naineshbhai Sabeb**. His selfless help has not only removed many obstacles from my path but has also given new meaning to my life as a whole. I with full respects accept his love, blessings and best wishes.

My personal thanks to **Mr. Divyang Thakkar** who always helped when I fall in depression, as well as my dear friends **Rahul Gordiya and Dhaval Tailor** who all were ready to render me every type of help required at different stages of my research work.

I fell indebted to my respected parents for providing their continuous inspiration and motivation to complete this research work. I certainly feel that person's first Guru is his/her Mother. And it was her blessings only that kept me going. I take this opportunity to pay my heartfelt tributes to my father who has always supported and applauded my academic efforts constantly.

My beloved wife **Ms. Jayna** has been helpful and considerate to me throughout my research work. "Children are innocent and Innocence is loved by Lord". I have felt the divine presence of the almighty whenever my young nephew **Vraj** has prayed for my success and goodwill.

Sentiments from the core of the heart, when translated into words, seldom convey what one truly wishes to express for prayers, encouragement and support provided to me by all the **Saints and Devotees of my Lord**. No formal words can fully convey my thanks to them.

I am highly obliged to all the persons who helped me **visibly or invisibly** for the successful completion of this Ph.D. work.

VATSALKUMAR HASMUKHBHAI SHAH