ACKNOWLEDGEMENTS

First and foremost I thank the Almighty God who has given me the courage and strength to fore take this journey of knowledge seeking. My earnest, indebtedness goes to my supervisor and guide Dr. Reena Srivastava for standing beside me throughout my research work and guiding me with invaluable inputs and direction of work. She has been my inspiration and motivation for continuously improving my knowledge and taking my research work forward. It would never have been possible for me to take this work to completion without her incredible support and encouragement.

I would also like to thank all faculties of Computer science department for their continuous support in my endeavours. I would like to thank Dr. Ahmed Ali, Dean, School of Applied Sciences, BBD University, Lucknow for his valuable support. I thank my colleagues especially Dr. Abdullah for their valuable inputs.

I here acknowledge all the researchers who have worked in the area of software engineering, their study and output has contributed significantly to the work described in this dissertation.

I am truly grateful to my father, brother, father-in-law and family for their immeasurable love and positivity. Remembering my mother, who encouraged me take up this journey but couldn't be with me to see it come to an end.

A Special thanks to my sons, Tejasvin and Kritin Goyal for doing so well academically and all round in spite of my mental absenteeism from my chores and duty. I would like to express my gratitude to my husband, Manish Goyal for his love and motivation.

Last, but never the least, I wish to thank many other people whose names are not mentioned here but this does not mean that I have forgotten their help.

Nidhi Goyal