Acknowledgement

First of all, I sincerely want to thank my supervisor Prof. (Dr.) Anoop Kumar Srivastava for his guidance, support and encouragement. He gave me constructive criticisms as well as rewarding praises, which motivated and trained me to improve the quality of my research. He has also been a great role model and I undoubtedly intend to use what I have learned from him as I move forward in my career. He is someone I definitely hope to live up to someday.

I do not have enough words to express how grateful I am for the endless support of my family. My parents have always provided me with unconditional love, and support. Without their faith in me, I could not have made it this far.

Many thanks to my sister Parwati Singh Patwal and my brothers Rajendra Singh Patwal & Bhawani Singh Patwal for their support and for being truly brothers when needed.

Finally, and most importantly, thanks to my cute little daughter Avni for being a good kid with her mother when I was studying. I would like to express much gratitude and love to my wife, Priyanka Singh Patwal. Without her patience and love, I would not have been able to complete this work.

Last but not the least, I thank all my well-wishers who directly or indirectly contributed to the completion of this thesis.

Pratap Singh Patwal
Enrolment No.: SGVU111805407