Acknowledgments

It is my privilege to express my unfettered sense of gratitude and indebtedness to my supervisor, Prof. M. S. Tiwari, Head, Department of Physics and Electronics, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P.), who is the main personality behind the successful completion of this work. It is his vigilant research insight, stalwart cognizance, perseverance and prodigious criticism, which resulted in a vanquishing the project. He is the person who introduced me to almost all versions of his wonderful field. His unsatiable hunger for more and more quality work has ever kept me on toes. It is impossible for me to find appropriate words to acknowledge his all time efforts.

I offer my sincere gratitude to Shri. Santosh Kumar, Honorable vice chancellor, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P.), who has always encouraged for quality research activities in the university.

I am grateful to Prof. R. S. Kasana, Prof. R. Nath; former Head and Dean, Prof. K. K. Saraf, Prof. J. L. Thakkar, Dr. R. K. Pandey, Dr. S. K. Shrivastava, Dr. R. A. Singh, Dr. K. M. Kesharwani, Dr. Mohan Tiwari, Dr. Ranveer Singh and Dr. Ashish Varma, Department of Physics and Electronics, Dr. Hari Singh Gour Vishwavidyalaya, Sagar, for the continued flow of moral support and valuable suggestions that I received at divergent stages.
I would not like to miss this opportunity to express my heartfelt thanks to Dr. (Miss) Poornima Varma, Dr. Arvind Baronia; F. S. L. Tikamgarh (M.P.), Dr. Anand Dwivedi; NPL New Delhi, Mr. Rameshwar Shandilaya and Mrs. Sangeeta Gautam.

I wish to extend my obligation and sincere thanks to the all members of the Physics Department for their excellent cooperation and encouragements.

I am highly thankful to Mrs. Tiwari, Mr. Sudhakar Tiwari, Mrs. Mradula Tiwari, Madhukar, Vandna and Harsh for their love and affection that always solace me. They provided homely environment in Sagar, far away from my home.

I feel short of words to express the love, care and sacrifice of my reverential parents Shri. K. L. Shrivastava, Mrs. Pushpa Shrivastava and my uncle Shri. G. K. Shrivastava. Their constant and esteemed support, ungrudging help has always been a source of inspiration, patience and strength to me. I can only say that whatever I achieved both material and spiritual are the blossoms of their life long “Tapasya”.

I express my heartfelt gratitude to my brothers “Harikar Shrivastava” and “Ved Shrivastava” without their constant encouragement I would have not been able to complete this work. I also owe a fair share of
heartfelt gratitude to my sisters “Karuna Shrivastava” and “Gita Shrivastava”. They encouraged me with love and affection and some times prompted me with taunts to reach the goal.

The financial assistance provided by “Indian Space Research Organization” (ISRO), Bangalore, Government of India in terms of research fellowship is thankfully acknowledged.

I pay my tribute to Sir Dr. Hari Singh Gour, founder of our university.

Finally, I pray to God Almighty for best owing everything I got in life.

[Ms. Jaya Shrivastava]