ACKNOWLEDGMENTS

I thank the Almighty who bestowed upon me the wisdom to choose one, who is known to be a very demanding academician in the country, as my thesis supervisor. Given the logistic of interaction, even to try matching his expectations was an uphill task. I am thankful to Prof. A. B. Bhattacharyya for initiating me to the area of interconnect technology; with reference to RF transmission in electronic systems, and setting for me an uncompromising benchmark standard. It was a unique experience to go through phases of pains and pleasures, which he taught me to accept as a part of research profession.

I would like to make a special mention of Prof. Tapas Chakravarty for the inspiring technical discussions I had with him. More than any other thing, I shall remember him for his selfless dedication, which is a rare commodity in today’s professional world. The technical literature that we have published is, but, a very small measure of the quantum of help that he has offered me.

The motivating force behind this work was Dr. Y. Medury, Vice Chancellor, JUIT. At times when I was restless and low, he would boost me up in his very own ingenious style. Although an engineer by qualification, I would best remember him as a person who knows how to manage human resources. Special thanks to Brig. Balbir Singh, Registrar, JUIT for providing logistic support during my frequent visits to JIITU, Noida to discuss with Prof. Bhattacharyya. I admire his patience and prudence in dealing with many administrative issues that aroused during these years.

I thank Prof. Sunil V. Bhooshan for all the help that he offered me. His mathematical articulation capability apart, he has been an inspiring leader and helpful at times of need. Many thanks to the staff of the Jaypee Institute of Information Technology University, Noida, Prof. S. K. Koul of the Indian Institute of Technology, Delhi, Prof. A. K Gupta, Mr. Shri Ram, and my friends and colleagues of JUIT, Waknaghat.

Finally, I thank my family; my parents, wife and my little angel, Ameya. They made this work possible and they were the ones who sacrificed a lot for my professional achievement. I owe my success to them. I thank my parents for their moral support and guidance. I dedicate this work to my loving wife for her co-operation and assiduous motivation.