ACKNOWLEDGEMENT

First and foremost, I want to dedicate my honest prayer to Almighty God who has given me the strength, knowledge, ability and opportunity to undertake this research study and to complete it satisfactorily. I am humbled and exceedingly joyful as a witness to his countless blessings.

This is a wonderful opportunity for me to acknowledge the people without whom it would have not been possible to complete my doctoral degree. Truly, words are not enough to express my gratitude to all of them.

First of all, I would like to express my enormous gratitude and sincere thanks to my supervisor Prof. Satyabrata Jit for his continuous support, motivation and valuable guidance. His immense knowledge and guidance helped me a lot to carry out my research work. Without his precious and whole hearted support the successful completion of this research work would have not been possible. His broad knowledge and enthusiasm for work will always be a source of inspiration for me.

I wish to extend my sincere gratitude towards my research programme committee (RPC) member, Prof. V. N. Mishra, Prof. R. Mahanty, and all the Departmental Research Committee (DRC) members for their valuable suggestions and fruitful discussions during the entire period of my research. A vote of thanks from the bottom of my heart goes to the Head of Electronics Engineering Department, IIT (BHU), Varanasi for providing me all of the necessary tools and lab facilities to conduct my research work. I would also like to thank all the faculty members, laboratory staff, librarians and office staff for their kind cooperation and encouragement during this journey.

My thanks and deep appreciations also go to all staff members of CRME lab, Department of Electronics Engineering, especially to Mr. M. K. Saxena, Mr. S.C. Yadav, Mr. Sanjeev Srivastava, Mr. Shyam Narayan, and Mr. Vinay Srivastava for their kind co-operation. I would like to express my special thanks to my seniors Dr. Divya Somvanshi, Dr. Purnima Hazra, Dr. Sarvesh Dubey, Dr. Mirgender Kumar, Dr. Aniruddh Bahadur Yadav, Dr. Kunal Singh, Dr. Vinod Kumar, Dr. Sunny Sharma, Dr. Kumar Shubham, Dr. Meenakshi Choudhary, Dr. Sweta Chander, for their constant encouragement and suggestions. I have great pleasure in acknowledging my colleagues and fellow Dr. Ekta Goel, Mr. Hemant Kumar, Mr. Yogesh Kumar, Mr. Sanjay Kumar, Dr. Balraj Singh, Mr. Chandan Kumar, Mr. Lalit Chandra, Mr. P. K. Sahu, Mr. Deepak Kumar, Mr. Amit Kumar, Mr. Kamlaksh Baral, Mr. Smriti Ratan, Mr. Prince Kumar Singh, Mr. Ashwini Mishra, for their motivation, support, and encouragement. I wish to extend my special thanks to all of them for providing a nice, friendly and peaceful research environment.

At this very special moment, however no words will be enough but I would like to express my heart-felt gratitude to my beloved parents and all my loving family members for their unconditional love, faith, and encouragement. They are the source of moral and emotional strength in my life. I also want to owe my sincere prayer to my grandparents for their eternal blessings.

Date:	GG	opal .	Rawa
Duie.	(0)	mui.	nuwu