

# Acknowledgments

First and foremost, I would like to thank Almighty God, for giving me the strength, ability and opportunity to undertake this research study and to persevere and complete it satisfactorily. Without His blessings, this achievement would not have been possible.

Though, only my name appears on the cover of this dissertation, so many people have contributed to its production. I owe my gratitude to all those people who have made this dissertation possible and because of whom my post graduate experience has been one that I will cherish forever.

I take this opportunity to express my profound gratitude and deep regards to my supervisors Professor Rakesh Kumar Misra and Professor Devender Singh, Professor, Department of Electrical Engineering IIT(BHU), Varanasi for their exemplary guidance, monitoring, constant encouragement and support throughout the course of this dissertation. I also pay my sincere thanks to my other RPEC members Professor Ravi Shankar, Department of Computer Science & Engineering and Professor Soumya Ranjan Mohanty, Department of Electrical Engineering for their valuable suggestions. I am obliged to other faculty members of the department and staff members of department of Electrical Engineering, IIT(BHU), Varanasi.

I also pay my sincere thanks to Professor Nishchal Kumar Verma, Professor, IIT Kanpur, for his valuable suggestions and support. He encouraged me to do full time PhD, while doing M.Tech., under his supervision.

I am grateful to Mr. Santosh Verma, Mr. Jitendra, Mr. Abhishek Kumar, Ms. Arpita Roy, Mr. Ashish Ranjan, Mr. Avneet, Mr. Basant, Mr. Amit, Mr. Bablesh Jha, and all other colleagues, who have provided me through technical, moral and emotional support during my research program. A very special gratitude goes out to my other colleagues and friends.

Last but not the least, I thank specially to my parents, wife and children who took

great pain during my PhD tenure, brothers and sisters along with their family members for their constant support and encouragement, without which this assignment would have not been completed at all. I am grateful to my other family members who have supported me along the way.

Date: \_\_\_\_\_

Tarun Maini