

# Acknowledgments

Though, only my name appears on the cover of this dissertation, so many great people have contributed to its production. I owe my gratitude to all those people who have made this thesis 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 supervisor Prof. S. P. Singh, Electrical Engineering Department IIT(BHU), Varanasi for his excellent supervision, skilled guidance with lot of patience, unfailing support and constant encouragement during my thesis work and also during my entire stay in campus. I consider it as my privilege to have the opportunity to work with him. I am especially, expressing my sincere gratitude to my supervisor for providing necessary support and constant encouragement during the entire period of progress of the research work as Professor-in-Charge power system complex.

I am obliged to faculty members, in particular Prof. M. K. Verma, Prof. L. P. Singh, Dr. S. R. Mohanty and Dr. N. K. Swami Naidu, and staff members, in particular Mr. Sanjay of Electrical Engineering Department, IIT(BHU), Varanasi.

A very special gratitude goes out to my colleagues and friends with special mention to Mr. Shailendra Singh, Mr. Raghuram, Mr. Vinod Kumar Bussa, Dr. Pilli Naresh Kumar, Mr. Amit Kumar Thakur, Mrs. Ekta Purwar, Mrs. Srilakshmi, Mr. Akhilesh, Mr. Devesh, and Mr. Sunil Kumar Singh

I am also grateful to Prof. Ashwani Kumar Sharma, Department of electrical Engineering, National Institute of Technology, Kurukshetra for moral support and encouraging me to pursue higher education

I would like to thank Dr. Shanti Mohan, Mr. Siva Prasad, Dr. Kranti Kumar, Mr. Ravi Teja Bhimarasetti, Mr. V V S N Murty, Dr. Vishwanatha Siddharatha, Ms. Anusha who provided me moral and emotional support during my research program.

I would like to express my deep sense of gratitude to my parents (Mr. George and Mrs. Mariyamma), my brother and sister-in-law (Mr. Joseph and Mrs. Rani), my uncle and aunty (Mr. Lourd Maraiah and Mrs. Pushpa), my brother-in-law (Mr. Abhishek) 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.

Last but not the least, I take this opportunity to acknowledge the love, affection, support and irreplaceable time strained by my wife Mrs. Alphonsa, that help me in the successful completion of my thesis.

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

Vijay Babu P