ACKNOWLEDGEMENT

With immense pleasure and deep sense of gratitude, I wish to express my sincere thanks to my supervisor Dr. K. Sathish Kumar, Associate Professor, School of Electrical Engineering, Vellore Institute of Technology, Vellore without his motivation and continuous encouragement, this research would not have been successfully completed. Not only he has been my guide but also as my mentor and guardian during my research journey.

I am grateful to the Chancellor of Vellore Institute of Technology, Vellore Dr. G. Viswanathan, the Vice Presidents, the Vice Chancellor for motivating me to carry out research in the VIT and also for providing me with infrastructural facilities and many other resources needed for my research.

I express my sincere thanks to Dr. P. Arulmozhipravman, Dean, School of Electrical Engineering, Vellore Institute of Technology, Vellore for his kind words of support and encouragement. I like to acknowledge the support rendered by Arunshankar V. K., Kumar K., Nilesh Satonkar, Namdeo Gujalwar, Nitin Kautkar, Piyush Warhadpande, Pradip Bamane, J. Prasanth Ram, Ramji Tiwari, Ramakrishna Reddy in several ways throughout my research work.

I also acknowledge technical support rendered by Dr. C. C. Reddy, Dr. Nandini Gupta, Dr. S. Chandrasekar towards partial discharge, electrical tree, space charge testing and preparation of materials.

I wish to extend my profound sense of gratitude to My Parents and Apeksha for all the sacrifices they made during my research and also providing me with moral support and encouragement whenever required.

Last but not the least, I would like to thank to all my friends Akshay Patil, Dipak Yeole, Nikhil Pophale, Niranjan Gurav, Nitin Padale, Parag Kumbhar, Satyendra Singh, Shrikant Kumbhar, Swaraj Kadam and relatives Yogendra Khaire and Vijay Nikam who extended financial support to carry out the experiments at IIT Kanpur, IIT Ropar, SCT Salem and moral support along with understanding.

Place: Vellore
Date: / /2018

PARAMANE ASHISH SHARAD