ACKNOWLEDGEMENTS

I avail this opportunity to express my sincere gratitude to my supervisor Prof. Bibhuti Bhusan Pati, Department of Electrical Engineering, VSSUT, Burla for his meticulous supervision, valuable guidance and constant encouragement from the beginning of the research work to its completion.

In addition, I want to express my gratitude to Dr. Banaja Mohanty, Head of the Department, Department of Electrical Engineering, VSSUT, Burla for her valuable comments and suggestions in my research work. I would like to thank to all the DRC members for their constant support.

I am highly grateful to Veer Surendra Sai University of Technology, Burla for providing the infrastructural support during my research work. I am thankful to all of my friends, colleagues and staffs for their presence and support, which lit some dark and difficult moments in the course of my research.

I am particularly thankful to Mr. Jatin Kumar Pradhan and Mr. Subrat Kumar Swain for their valuable help during my research work.

It would have been impossible to carry this research without the blessing of my parents, my parents-in-law, sisters, sister-in-laws and brother-in-law. I owe heartfelt thanks to my mother, who has always trusted me in every decisions of my life. Words cannot be express how grateful I am to my husband Dr. Santosh Kumar Majhi for all his efforts and encouragement during my research work.

At the end I acknowledge my sincere thanks for one and all who have helped me directly and indirectly during the pursue of my PhD research.

Rosy Pradhan