ACKNOWLEDGEMENTS

“To achieve something that we had never before, we need to do something better which we have never done before.”

First of all, I would like to thank the Almighty GOD, for giving me enough strength, courage, patience and health during the entire work.

I wish to express my deepest gratitude to my guide Dr. (Prof.) B. R. Parekh, Head of Department of Electrical Engineering, Birla Vishvakarma Mahavidyalaya (Engineering College), Vallabh Vidyanagar, for his constant guidance, encouragement and support. I warmly acknowledge and express my special thanks for his inspiring discussions and infallible suggestions.

I am extremely thankful and highly obliged to the Board of Management, Charutar Vidya Mandal and Dr. C L Patel, in particular, who has approved my application for higher studies and provided me the opportunity to pursue Ph. D. I am also thankful to Dr. V S Patel, Director, Sophisticated Instrumentation Centre for Advanced Research and Testing (SICART) for giving me encouragement for carrying out this research work.

I would like to thank Dr. F. S. Umrigar, Principal, BVM Engineering College for extending his help and support to me as and when required.

I sincerely thank Mr. Chirag Parekh and Mr. Nilesh Gurjar of M/S Atlanta Electricals Pvt. Ltd., GIDC, Vitthal Udyognagar, Gujarat, INDIA for granting permission and providing all the necessary resources to carry out my experimental work.

I would also like to thank Mr. Ritesh Patel of M/S Transformers & Rectifiers Ltd., GIDC, Changodar, Ahmedabad, Gujarat, INDIA and Mr. Tushar G. Patel & Mr. Snehal G. Mehta to the SMS Sabarmati, GETCO, Gujarat, INDIA for giving a
chance to collect the practical SFRA data for the transformer and helping by their unconditional support during the completion of my research work.

At this moment I cannot resist myself to be bit emotional and expressing my gratifications to all family members my respectable father Shri Anil M. Pandya, my respectable mother Smt. Ansuya A. Pandya, my beloved wife Dipti A. Pandya, my dearest daughter Aneri, my dearest son Shardul and my dearest nephew Nityanshu without whose continuous support and love it was not only difficult but impossible to carry out this work. They were right beside me in all ups and downs during this mammoth task.

No words are adequate to express my thanks to my younger brother Vishal A. Pandya for supporting me to spare my time for Ph.D. work. I acknowledge with utmost warmth the unending support, love and blessing received from my sisters and sisters in-laws.

The acknowledgments would be incomplete if I don’t thank all my well-wishers and friends for their support and warmth extended to me. I am also thankful to the one and all who have helped me directly or indirectly during this work.

- Akshay A. Pandya