ACKNOWLEDGEMENTS

I express my profound sense of gratitude to Dr. B. Subramanyam, M.E., Ph.D., Vice Principal and Professor of Electrical Engineering, S.V. University College of Engineering, Tirupati, for suggesting the research problem and providing the guidance besides the constant encouragement. Words are inadequate to express my sincere thanks to him for enabling me to get successfully acquainted with the vast field of research in Electrical Engineering. Without his kind help and unstinting support, the work would not have been successfully completed. He has been the prime motivator of this work.

I wish to also place on record my sincere thanks to Prof. G. Ramachandra Reddy, M.Sc., M.Sc (Tech), Ph.D., Head of the Department of Electrical and Electronics Engineering, for providing all the necessary facilities for accomplishing my research work, but for whose co-operation, this work would not have acquired such a complete shape.

I express my sincere thanks to Prof. G. Ramprasad, M.E., Ph.D., Principal, S.V.U. College of Engineering, for providing the necessary infrastructure for enabling me to carry out this research work. To my colleagues, I would like to express my profuse sense of gratitude for the various invaluable suggestions, invaluable support and whole hearted encouragement rendered at various stages of execution of this work.

It would be appropriate to express my sincere thanks to Dr. M.R. Ashok for going through the proof, Sri. S.Varada Rajan and Sri. V. Rajanikanth for Computer Assistance, Sri. T.R. Sethuraman for his help in drawing the illustrations.

I owe a major part of accomplishing this task to the affection bestowed upon me by my parents Venkata Raju, Satyavathi, my wife Salkumari and my sons Chaturved and Manoj for their constant inspiration and moral support.

Special appreciation is due to M/s Karthik xerox and his staff for their painstaking care in giving my thesis the format and presentation in its present form.

Finally, I express my thanks to all my colleagues and friends, who have encouraged me throughout in all my endeavours and pursuits leading to its finalisation prior to submission.

P. SANGAMESWARA RAJU