ACKNOWLEDGEMENTS

Prof. K. Ramakrishna Prasad, my teacher and Research Supervisor, has been a perennial source of inspiration, guidance and constant encouragement. His scholarly help and invaluable suggestions need no measure. But for his help, cooperation and encouragement it would not have been possible for me to have completed the work in time. I feel immensely happy to express my deep sense of gratitude to him.

My sincere thanks are due to Prof. J. Hanumantha Chari, Vice Principal and Dean of Mathematical Sciences, Department of Mathematics, S.V. University; Prof. V. Srinivasan, Head of the Department, Prof. L. Nagamuni Reddy, Chairman, Board of Studies, and other staff members of the Department for their help and cooperation. I am also thankful to Prof. Prawal Sinha, Prof. Peeyush Chandra and Prof. V. Raghvendra, Department of Mathematics, I.I.T., Kanpur and Prof. V. V. Raman Rao, Dr. G. Krishnaiah, Department of Mechanical Engineering, S.V. University; Tirupati for their enriching discussions and valuable suggestions which helped my work a lot.
I owe my debt of gratitude to my friends and Research Scholars Dr. A.V. Chandra Sekhar, Dr. R.V.S.S.N Ravi Kumar, Mr. T. Narayana Rao, Mr. S. Sreedhara Rao, Mr. M. V. Mahadev Kumar, Mr. K. Sobhan Babu, Miss. P. Venkata Lakshmi, and baby K. Aravinda, for their cooperation and encouragement.

Behind my successful educational career, my beloved parents are the pillars, without whose help and encouragement I would not have come up to the present state. I owe my existence to them. Words are inadequate to express my sincere gratitude. Nevertheless, I pay my humble respects to them. My love for them.

My heartful thanks are due to my family members Mr. S. Siddaiah, Mr. M. V. Ramana Reddy and my cousin, his wife for their moral support and encouragement.

I must also be very thankful to the University authorities for providing me financial assistance through Teaching Assignment for three years.

Tirupati

( R. RAGHAVENDRA RAO )