ACKNOWLEDGEMENT

I wish to express my deep sense of gratitude to Prof. S. Venkata Ramana, M.Sc., M.Phil., Ph.D., Department of Mathematics, S.V.U College of Sciences, S.V. University, Tirupati, for accepting me as research scholar and suggesting a novel and fascinating problems for execution. Despite his busy schedule, he had spared sufficient time and gone through this thesis with monumental patience his thorough discussion and critical analysis are responsible for the present form of my work. He has been the sole inspiration for me. I consider it is good fortune to work under him. I am deeply novel by his affection, personal care and constant encouragement. These mere words won’t suffice for expressing my gratitude for what all I learnt form him.

I am thankful to Prof. K. Ramakrishna Prasad, Chairman, Board of Studies in Mathematics and Prof. N. Bhaskar Reddy, Head, Department of Mathematics for their constant help and encouragement.

I am immensely benefited by the academic interaction with other faculty members Prof. S Sreenadh, Prof S. Ramakrishna, Prof. B. Jayaraj, Prof. S. Vijay Kumar Varma, Prof. M. Sundara Murthy, Dr G. Viswanatha Reddy, Dr V. Sugunamma, Dr D. Bharathi, Dr C. Jaya Subba Reddy, Sri K.M. Bhanu. I profusely thank them all.

I am grateful to Prof. C. Subbarami Reddy, Principal, S.V.U College of Sciences, S.V. University, Tirupati, for his elderly advices and blessings. I immensely thank to Dr K. Srinivasulu, Dept. of Statistics, J.B. Degree College, Kavali for his helping in preparation of this thesis.

I thank Dr A. Sudhakaralah, Department of Future Studies, S.V.U. College of Biological & Earth Sciences, Mr G. Srinivasulu, Associate Professor, VEC, Kavali, Mr P. Narayanan, Asst. Prof. VEC, Kavali and Mr D. Chennakesavalah, other Research Scholars, Department of Mathematics, S.V.U. College of Sciences, Tirupati, for their constant encouragement.
I am grateful to Sri D. Vinay Kumar Reddy, Rector, Sri I.P.C. Reddy, Director, Sri D. Vidhyadhar Kumar Reddy, Correspondent, Prof. K.V. Reddy, Principal, Smt. D. Prathyusha Reddy, Vice Principal (Administration) & Mr V. Suneel Reddy, Vice Principal, PBR VITS, Kavali for their affection and continuous interest they evinced in the progress of my research work.

I express my sincere thanks to my colleagues Dr B. Radhakrishna, Dr N.V. Srihari, Dr V.V. Subba Reddy, Dr K Maheswara Rao, Dr I. Malyadri, Dr I.J. Madhukar, Mr K. Ramakrishna, Mr Y.V. Rao, Mr O. Seshiah, Mr. SK. Abdul Shakeer, Mr B. Thirumala Rao, Mr D. Ramana, Mr K.V. Subramanyam, Mrs P. Hariprasanna, Mrs V. Krishnaveni, Mrs A. Niranjana, Mrs Elizabeth Jammy, Mrs K. Rajani, Mrs M. Aruna & Ms N. Lakshmi and my best well wisher Ch. Ramesh, L.I.C. Development Officer for their moral support.

I am highly indebted to my parents Mr & Mrs Ch. Raghavaiah, father-in-law Mr B. Srinivasulu, Mother-in-law Mrs B. Padmavathi, my sisters Mrs P. Seshamma, Mrs G. Aruna & Mrs M. Suneetha for providing moral, financial support and blessings for completion of this thesis. I wholeheartedly thank to my brother-in-law Dr B. Venkateswara Rao, M.N.Y.S and Sister Dr B. Anasuya, M.N.Y.S and Mr. B. Ramesh, M.Tech., who always invite me with smile and gave ideas on preparing this thesis.

I avail myself of this opportunity to express my profound and sincere thanks to my beloved wife Ch. Rajya Lakshmi and sweet children Ch. Naga Latha Sree, Ch. Sri Harshith who have not only bestowed their immeasurable affection upon me but also provided me with moral support. It’s my pleasure to thank Teaching & Non-Teaching staff, PBR VITS, Kavali for their constant encouragement and motivation.

I sincerely thank office staff of Dept. of Mathematics, the authorities and staff of S.V.University, Tirupati for administrative support during the course of my research work.

(CHITTARU SREENIVASULU)