Acknowledgement

I express my sincere gratitude to my supervising teacher, Dr. K.K. Jose, Reader and Head, Department of Statistics, St. Thomas College, Pala for his timely help, inspiring guidance and valuable suggestions throughout the work.

I owe my gratitude to The Principal, St. Thomas College, Pala for extending all the facilities to carry out the work.

I humbly express my sincere gratitude to Dr. S. Edison, Director, CTCRI, Sreekariyam, Thiruvananthapuram for granting me study leave to undertake the PhD programme.

I sincerely acknowledge the support given by Dr. M.S. Palaniswami, Project Coordinator and Dr. M. Anantharaman, Head, Section of Social Sciences during my research.

I acknowledge with gratitude Dr. P.G. Rajendran, Former Project Coordinator, for his keen interest and encouragement given to me.

My heart-felt thanks are due to Dr. Thomas Mathew, Professor, Department of Mathematics and Statistics, University of Maryland, Baltimore, USA for providing his research papers and the advices during my research.

I thank Dr. A.M. Mathai, Director, Centre for Mathematical Sciences, Pala campus for the encouragement given during this endeavour.

My thanks are also due to Shri. Santhosh Mithra Scientist(SS), Dr. M.S. Sajeev, Sr. Scientist and Dr. S.N. Moorthy, Principal Scientist, CTCRI for their support and co-operation.

I also wish to mention the names of Shri. A. Madhu, Technical Officer, CTCRI and Dr. S. Pradeep Kumar, Lecturer (Sl. Grade), M. G. College, Thiruvananthapuram for their help during different stages of my work.

My grateful thanks are also due to Smt. P. K. Rajamma, Technical Officer (Librarian), CTCRI for extending me the library facilities.
I also express my gratitude to all my colleagues and well-wishers at CTCRI.

I sincerely acknowledge the faculty, Librarian, fellow research scholars and non-teaching staff of the Department of Statistics, St. Thomas College, Pala, for their cooperation and help during my research work.

I express my heart-felt thanks to my wife A.N. Jyothi, kids Gokul and Goutham, parents, brothers and in-laws for their patience, moral support and encouragement during this endeavour.