ACKNOWLEDGEMENTS

I wish to express my indebtedness and deep sense of gratitude to my research director Prof. K. Gopala Reddy, for giving me an opportunity to pursue my doctoral work under his supervision. I thank for his support, suggestions and for providing scientific independence all through the course of this dissertation.

I express my sincere thanks to Prof. K.V.S.R.Prasad, Chairman, Board of Studies, Department of Meteorology and Oceanography, for his constant encouragement and well wishes. I am forever grateful to him for his all-out help for completion of this thesis work.

I thank Prof. S.S.V.S.Rama Krishna, Head of the Department, Department of Meteorology & Oceanography for providing the facilities to carry out this research work. I also thanks Prof. G. Bharathi, Dr. C.V. Naidu and Dr. P. Sunitha, for their support and encouragement throughout my work. I am grateful to our University administrative staff and the secretarial staff of the Department of Meteorology and Oceanography, Andhra University for their cooperation and support.

Special thanks are due to Prof. P. Rajendra Prasad and Prof. B.S.R.Reddy for useful and stimulating discussions on the subject of my thesis work.

I would like to thank various science teams and data producers for making the vast variety of satellite as well as ground observations available freely, without which this research work would not have been possible.

My interactions at various stages with Dr. A.L. Aneesh, Dr. K.V.K.R.K. Patnaik, P. Hari Prasad, Prof. A.S.R. Swamy (Retd.), Dr. B. Mahendranath, Dr. S.
Ramalingeswara Rao, Dr. V. Lakshmana Rao, Mr. K. Annapurnaiah, Dr. T.V.S Uday Bhaskar and Mr. A.S. Srikanth were very much beneficial and I thank them all for extending their help.

I like to thank Indian Maritime University, Visakhapatnam Campus for cooperation and encouragement.

It is pleasure to thank all my friends and colleagues at Andhra University, IIT Delhi, and IIT Kharagpur particularly B. Srinivas, S.V.V. Arun Kumar, Ch. Venkata Ramu, Dr. K. Koteswararao and Dr. G. China Satyanarayana for their nice company and enthusiastic help during the various phases of this work.

I sincerely thank Indian National Center for Ocean Information Services (INCOIS, Hyderabad, India) for providing the moored buoy data. And I also acknowledge Environmental Modelling Centre, NOAA for providing Wavewatch III model data. Thanks are also due to Archiving, Validating and Interpreting Satellite Oceanographic data (AVISO) for giving access to multi-mission merged significant wave height data and National Center for Environmental Prediction (NCEP) for providing reanalysis data.

Last but not the least; I am deeply indebted to my father, Sri. R. Nagabhushanam; mother, Smt. R. Seetha Mahalakshmi; my grand-mother, Smt. S. Lakshmamma; my sisters, Mrs. K. Sravani Kumari, Miss. R. Sri Durga; my brother-in-law, Mr. K. Srinivasa Rao and my uncle Mr. Y. Srinivasa Rao and other family members who have always stood by me. My father provided initial motivation and continued sense of perseverance. I also remember my late grandfather, who always showed faith in me and inspired me.

R.R.V. Suresh