ACKNOWLEDGEMENTS

I would like to express my deep sense of gratitude to my guide and mentor Dr. C.G. Nandakumar without whom this work would not have been materialised. The pleasure of learning from him during this endeavour will definitely remain etched forever in my memory. No tribute in words or action can match the debt I owe in this regard.

I would like to thank Dr. Dileep K. Krishnan, Head of the Department of ship technology, for having provided the support – both in his official and personal capacities – for this work.

It is my pleasure to place on record my sincere thanks for all guidance and help rendered during the course of this research work, by Prof. E.M.S. Nair, the former Head of the department of ship technology. I owe much to the valuable insight given by Dr. K.P. Narayanan, in the area of finite element analysis.

Words are not enough to describe my thanks to all the faculty members and office staff of Ship Technology Department. Special mention should be made of Sri. Rajesh, Smt. Seenath and Smt. Ajitha for their kind support.

I am very grateful to Dr. Ashalatha Thampuran and Prof. Mahadevan, the former and present Principals of Rajiv Gandhi Institute of Technology, Kottayam for the encouragement provided by them.

I would like to acknowledge many of my friends and colleagues who in various capacities have rendered their help. Very special thanks to Prof. K.T.Subramanyam, Dr. M.S.Jayamohan and Prof. Bino I. Koshy for their kind cooperation.