

ACKNOWLEDGEMENT

*At this moment of accomplishment, I would like to extend my heartfelt gratitude to my guide and mentor, **Dr. P. Malliga**, Professor, Department of Marine Biotechnology, Bharathidasan University, Tiruchirappalli, for her valuable guidance, unfailing encouragement academic counseling and support during the entire course of my research work,*

*My sincere gratitude to the Doctoral committee members **Dr. V. Rajesh Kannan**, Assistant Professor, Department of Microbiology, Bharathidasan University, Tiruchirappalli and **Dr. M. Vasanthiy**, Assistant Professor, Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli for their valuable advice and Their precious suggestions helped me to approach research problems in different ways.*

*I am very grateful to all the faculty members of this department **Dr. M. Sundararaman**, Professor & Head, **Dr. L. Uma**, Professor, Director, NFMC, **Dr. D. Prabakaran**, Professor, **Dr. K. Anbarasu** Assistant Professor and **Dr. S. Rajakumar** Assistant Professor who have provided academic inputs, logistical support and their best wishes.*

*I want to thank research scholars of my department **Mrs. K. Chitra devi**, **Mrs. K. Lakshmi**, **Mrs. N. Shanmugapriya**, **Ms. Bela Rani Bhagat** and **Mrs. H. M. Nilofer Nisha**, and **Mrs. S. Lakshmi** field worker for their constant encouragement and support.*

*I express my heartfelt love, thanks and sense of gratitude to my beloved husband **Mr. K. Sivakumar**, my lovable sons **Master S. Kausiik** & **Master S. Raghav**, and my family members **Mrs. K. Akilambal**, **Mrs. M. Meenakshi**, **Mr. M. Shanmugam**, **Mrs. M. Periammal**, **Mrs. S. Janani**, **Ms. S. Niranjani** & **Mr. S. Marx** for their constant encouragement, support, gracious and tireless enthusiasm at every stage of my work which cannot be expressed in words.*

I praise almighty who has bestowed me the courage and strength to achieve this target. Last but not least, I want to thank all those who have helped me directly or indirectly to make this work a success but missed a mention.

S. JENNY