ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my advisor, Dr. Krishna Kanth Pulicherla for the continuous support of my study and research, for his patience and motivation. It was his guidance which helped me at all the time of research and writing of the thesis. It would not have been possible to complete this dissertation without his persistent help. It was very tough to imagine having a better advisor and mentor for my study.

I want to express my special gratitude to Dr. Mukesh Doble, Department of Biotechnology, Indian Institute of Technology, Madras for giving me a golden opportunity to complete most of my Ph.D work.

I want to express my sincere gratitude to Prof. K.R.S. Sambasiva Rao for his kind support.

I extend my gratitude to Dr. V.P.B. Rekha, Assistant Professor, Department of Biotechnology, R.V.R. & J.C. College of Engineering for making me part of the fermentation studies for the optimal production of L-Asparaginase.

I am also grateful to Acharya Nagarjuna University, Guntur, Andhra Pradesh, for giving me the opportunity to carry out the doctoral research. I would like to thank Dr. P. Sudhakar, Head, Department of Biotechnology, Acharya Nagarjuna University, Andhra Pradesh, for his immense concern throughout the work. I owe a special word of thanks to all the faculty members of the Department for their constant encouragement and support throughout this duration.

Apart from the efforts put by myself, the success of any project depends on encouragement and help of many others. So, I take this opportunity to express my most heartfelt and cordial thanks to my friends Mrs. Padma Priya, Mr. Tamizh Anbu, Ms. Mohana Priya, Ms. Subhashini Mithivanan, Ms. Mohana Lakshmi, Ms. Shruthi Reddy and Mr. N. Kathiresan who stood by my side at the toughest times.

I most gratefully acknowledge my parents, members of my family who have supported me throughout the entire process, by keeping me harmonious and helping me putting pieces together. Finally, I thank the almighty whose blessings have enabled me to accomplish my work successfully.

Place: Guntur
Date: 21-12-2015

(NAGA RAMYA LANKA)