## Acknowledgment

Firstly, I would like to thank my supervisor Dr. Shyamanta M Hazarika for his invaluable guidance and support in the period of my research. I express my deep sense of gratitude for his patient guidance, inspiring advice and constant encouragement throughout the work. He always had time to answer my endless questions. In these years, he has taught me something that is very unique. Sir, thank you for being teaching me how to learn!

I would like to acknowledge constructive criticism and thoughtful suggestions of my Doctoral Committee: Dr. Utpal Sharma and Dr. Bhogeswar Borah. I am grateful for research environment provided by Department of Computer Science and Engineering at Tezpur University.

I would like to acknowledge CSIR, India, for financial support under the research grant CSIR–SRF–09/796/ (0039)/2012/EMR–I. I also acknowledge the financial support received from DIT, Govt. of India through its project entitled Design and Development of Cost-effective Biosignals Controlled Prosthetic Hand under Grant No. 1(9)/2008–ME & TMD.

I want to thank specially Pritom Rajkhowa, Computer Centre, Tezpur University for providing the 3-D maze models used in the experiment. It would be injustice if I do not thank Mohamad Arif Khan and Sumant Pushpt. Special thanks to Mohamad Arif Khan who implemented  $C^3Arc$  as ROS node. I am indebted to Arif for his help to make this thesis complete. I also thank all the participants who had enthusiastically volunteered in carrying out my experiments. Special mention goes to Bitupan Bora, research scholar, Department of Business Administration, Tezpur University, who gave the statistical software package SPSS within a minute of my request.

I am thankful to Juwesh Binong for his friendly support. I would also like to thank Padmaja Sharma and Dushyanta Dutta.

I sincerely feel, it is my duty to voice my deep sense of gratitude to the entire staff of Bishnupriya bus services for making my journeys safe and on-time, for nearly two and half years.

I am thankful to my in-laws for their support and understanding during this long period of time. Finally, Dear Maa and Deuta, no matter how badly I failed, I always knew that you two treat me like a winner. Thanks for being so supportive.....

> Adity Saikia June, 2015