ACKNOWLEDGEMENTS

Acknowledgement is a pleasant task to remember all those people who contributed in my research journey. First of all, I express my immense and heartfelt thanks to my research supervisor Prof. K. Veluraja. Without his thoughtful guidance and constant support, this biophysics work would not be possible. I successfully overcame many difficulties and learned a lot from his guidance. He gave enough space to execute my research ideas during my research period. Even after his retirement, he constantly monitored and encouraged me towards my research progress. Amidst his busy schedule, he successfully made my thesis corrections and shaped it through his valuable suggestions.

I thank the Head and faculties of Physics Department as they are my post graduation teachers and they sowed research seeds in my mind through their teaching. I specially thank Dr. B. Sundarakannan because my research interest originated from his enthusiastic guidance of my M.Sc project and at that time only I decided to do research in theoretical field.

Sincerely I thank Dr. M. Michael Gromiha – IIT Madras and Dr. K. Fukui – AIST, Japan for their valuable suggestions and computational facility throughout my research period.
I am happy to acknowledge Prof. D. Velmurugan – University of Madras. He didn’t forget to encourage me in every meeting of us. He gave many beneficial suggestions for enhancing quality of my research.

My special thanks to Dr. S. Sudhakar, Department of Biotechnology, MSU for his kind accommodation and nice treatment during the last two years of my research period.

I sincerely express my thanks to Dr. C. Ramakrishnan – IIT Madras for his kind help in my molecular dynamics simulations data. He clarified many simulation doubts through his fruitful research discussion.

It is my fortune to have J. Fermin as my senior. He cared me from the beginning to end of my research and constantly helping me without a slight face shrinking. I am inspired by his hard working nature, computational knowledge, research interest and clarity of activity. I have learnt a lot from him. He tightly joined my hand with his hand throughout my research journey. Beyond his seniority, he is a very good friend of mine. Merely thanks are inadequate to him for his immortal support.

My hearty thanks to Mrs. T. R. K. Priyadarzini for her support in my research. Though she was another senior, she is my friend. During my initial stage of research, I was working with her. Gradually she set my mind to biophysics environment through her patient explanation of how biophysics works. She suggested many valuable research points through her fruitful research discussions. I extend my hearty thanks to my lab mates P. Parasuraman and A. Jasmine for their constant support and warm encouragement towards successful accomplishment of my research.
It is impossible to travel a research journey without friends. Friends are the superior boosters of research life. By the way, my mind mate friend is R. Venkat Raman since he does exactly as what is in my mind. He fulfilled my needs before I said and he knows the meaning of each and every gesture of mine. I never have seen such a friend in my life. I also take this opportunity to remember my sweet friend M. Vasanth Babu. Venkat, Vasanth and me are very good friends since our post graduation. In spite of avail M.Phil oppurtunities, Vasanth and me spent one year for searching research opportunities by visiting various institutions after completion of our M.Sc., degree. Fortunately I got but he didn’t. Even though he regretted his situation, he never slipped to encourage me frequently to achieve my Ph.D through his enthusiastic motivation.

Frustration is an unwelcomed guest in every researchers’ life and at certain point of time every researcher might provide good hospitality for that. By the way, my frustrations are often shared by my friend M. Veera Gajendra Babu. He converted my disappointments into pleasure by sharing his frustrations which will be mammoth in size and very critical when compared to mine. We have discussed seriously about difficulties and discrepancies that exist in research life just like prime ministers of two countries but we couldn’t arrive at a solution similar to the diplomatic talks. But we consoled each other through sharing our research feelings. Between us, a third idiot is Kannan, another research scholar. He has the magnanimous power to change any serious situation into pleasant by his humorous talk and activity. Apart from us, gossips of our three are well known to Mariyadoss and Mohammed Syed Ali who are the tea shop owners, since they have high tolerance against our gossips.
I thank biotechnology friends since they added different flavor of enjoyments in my last two years of research. I felt a comfortable research environment in their department because of them. I warmly appreciate their gentle behaviour and friendship. They also suggested many constructive points in the evolution of my research. I cannot miss to thank Kalidhas, Elaiya Raja, Dinesh Kumar, Vasantha Kumar, Sridhar and Natraj.

When I was in oscillation due to big confusion about a matter, undoubtedly I will go and ask a particular person since he could offer a right solution. He is Dr. R. Ramasubramanian, my friend and advisor. He declared many practical solutions of my problems without favoritism. Whenever I lost my research energy, he re-energized me with his confident speech. He always inspired not only me but also others by his simplicity. Words cannot express my deeply felt thanks to him.

Enjoyment is guaranteed whenever a particular person is with me. He is M.Balaji, another sweet friend. I fully enjoyed his friendship during my research. I cannot forget his funny comments and beautiful moments with him. Also he suggested many useful comments towards my research progress and helped me a lot. An unbreakable network was formed by friendship bonds among Fermin, Balaji, Venkat and me. Our unforgettable pleasant memories added more strength to the network and stabilized it well. My heart floats in the sea of pleasure whenever I reminisce our blissful memories. Words fail me to thank him.

I specially thank Late. Sivanantham sir who was former superintendent of Planning and Development section, MSU. He was very kind and saved my time through
his official helps and support. Whenever I met him, he enquired about my research status caringly. I pay homage to him and I wish his soul to rest in peace and find solace in the heaven.

I thank Mr. Stephen and Mr. Krishnan belonging to Ripples solutions, Madurai. Whenever our IBM Servers got error, my phone immediately calls them. They will render some suggestions to make it function again and if still it is not working, they came to our lab without any time delay and solved the problems without any expectations. Many times research data have been saved by them.

I gratefully acknowledge DBT-AIST, Indo–Japan Fellowship for assisting financially my research work. Bioinformatics Infrastructure National Facility hosted at Department of Biotechnology, MSU is greatly acknowledged for providing computational facility.