Acknowledgements

It is a matter of great privilege and pleasure for me to thank my guide Dr. Vasudev Thakkar for the guidance. He has been a constant source of inspiration throughout the tenure of my project work. I will always remain grateful to him for the constitutive help provided during my course work.

I take this opportunity to extend my sincere gratitude to Prof. Kiran Kalia, Head, BRD School of Biosciences, Sardar Patel University for providing me with the necessary facilities of the department. I am also thankful to Prof. Datta Madamwar and Prof. K.S. Rao for providing me with necessary requirements during the initial stages of my research work.

I also express my sincere thanks to Prof. AVRLN Acharya Sir, Prof. K.C. Patel Sir, Prof. R.B. Subramanian, Prof. Ujjawal Trivedi, Prof. Haresh Kehariya who has also guided and helped me whenever needed. I am also thankful to technical and office staff.

I am also thankful for the help rendered by office bearers of Potato Research Station, Sardarkrushinagar Dantiwada Agriculture University and Plant Pathology Department, Anand Agriculture University for providing me certified potato seeds and phytopathogens respectively, to initiate my research.

I also grateful to Dr. Pierre R. Fobert, Plant Biotechnology Department, National Research Council, Canada, for kindly gift of rabbit polyclonal antibodies to Arabidopsis NPR1 protein. I also indebted to University Grants Comission for providing meritorious student fellowship.
I also extend my thanks to Dilip kaka, Jigar bhai (President), Sunil bhai, Ketan bhai Pacnhal, Bharat bhai, Paresh bhai, Ketan bhai Thakar, Raju bhai, Ashish bhai, Jaymin bhai, Arvind bhai, Palak bhai, Mukesh bhai, Sandeep bhai, Indravadan bhai, Jigar bhai, Patel, Chetan bhai for excellent cooperation, encouragement and lifelong friendship.

I also express my gratitude to the numerous people whose names are not mentioned here, due to space constraints, but have been of great help to me.

I am also thankful to Almighty, the God for choosing better for me, to be followed and endowing me good with people to live with.

Most importantly, Last but not least I am also thankful to wife and my parents for keeping long term patience and having faith in me.