ACKNOWLEDGEMENTS

I take an opportunity to express my deep, sincere and honest gratitude to Dr. L.P. Deshmukh, my real advisor, "Fellow, Semiconductor Society of India", Member of the Institution of Electronics and Telecommunication Engineers", for his interest, constructive criticism, scholastic guidance and spontaneous help right from the selection of the problem till the completion of the work. He has been a constant source of inspiration and has been instrumental in training me as a research scholar. The successful completion of this dissertation is entirely due to his rich guidance.

like Ι would thank Prof.R.N. Patil to and Prof.S.H.Pawar for their moral support and encouragements. The discussions with Dr. S.A.Patil and Dr. C.D.Lokhande, University Department of Physics and Dr. P.P. Hankare Department of Chemistry, P.G.Centre, Solapur acknowledged.

I will be failing in my duty if I do not acknowledge Dr. P.B.Joshi and Dr.S.S.Suryavanshi and the Departmental staff for their moral support.

I sincerely appreciate the help rendered by Shri.A.B.Palwe, Shri D.S.Hulle, Shri.S.G.Hollikatti, Shri.M.I.Belle, Shri B.P.Rane for their active participation

during the gradual development of this dissertation and for ever enjoyable times that we have shared.

This work would not have been possible without the kind permission and support of the authorities of Akalkot Education Society, Akalkot and Prin. S.C.Yallatti, C.B.K's, B.Sci., R.V.Com. and R.J.Arts College, Akalkot.

It is my solemn duty to acknowledge my sincere friends Shri.S.N.Chougule, Shri.C.M.Hiratot, Shri.S.S.Adavitot, Shri.V.S.Wale and Shri T.V.Hotkar for alleviating my moral responsibilities. Thanks are also due to Shri P.S.Harkud for his encouragements.

I further, acknowledge with thanks, the help rendered by Dr. Ninad Shah, Department of Zoology, Walchand College of Arts & Science Solapur.

My deepest thanks and appreciations are reserved for my wife Sou. Jyoti and family members for their moral support and alleviating my household responsibilities through out these days.

A punctual and careful typing by Shri.Lakshmikant K. Pedasangi and Kum. Madhuri Jaju is highly appreciated.

Place - Solapur

Date - 15 Nov, 1991

K.V. Zipane Kisan Vithalrao Zipare