ACKNOWLEDGEMENTS

I express my gratitude to Dr. B.G. Mulimani, my research supervisor, for his constant help and persistent encouragement throughout the course of this work. I am thankful to him for critical reading of the manuscript.

I am grateful to Dr. S.S. Kubakaddi for his close co-operation during the course of this work and valuable discussions.

I wish to thank to Prof. P.N. Butcher of University of Warwick, U.K., and Prof. M. Tomak, Middle East Technical University, Ankara, Turkey, for their interest in the work and valuable suggestions.

I am thankful to Prof. B. Hanumaiah, Chairman, and Prof. N. Umakant and Prof. B.G. Jyoti, former Chairmen of the department for their help.

I am grateful to the management of S.D.M. College of Engineering and Technology, Dharwad, for permitting me to undertake the present work. I acknowledge gratefully the support from Prof. N. Vajrakumar, Principal, J.S.S. College, Dharwad. I am grateful to Prof. G. Puroshothama, Principal, S.D.M. College of Engineering and Technology, for his interest in the work and constant encouragement. I am also thankful to Prof. P.N. Koul and Prof. V.N. Sukumar for their interest in the work.

I must thank Dr. N.M. Bujurke, Chairman, Department
of Mathematics, for his help with numerical calculations. I wish to thank Dr. A.M. Karaguppikar, Dr. D.K. Dashpande and Dr. M.A. Shashidhar for their interest in the work.

It is a pleasure to express my appreciation to all the members of the staff and fellow Ph.D students, and to my colleagues and friends in S.D.M. College of Engineering, who have directly or indirectly assisted me during the course of this work.

I wish to thank Prof. P.R. Hanchinmani, Head, Dept. of Physics, J.S.S. College, Dharwad, Prof. K.N. Bhat, Dept. of Electrical Engineering, I.I.T., Madras and Prof. V.B. Nadakarni for their interest in the work.

The preparation of the thesis was made possible by the co-operation of Dr. N.S. Sankeshwar. I am thankful to him for this and many useful discussions. Thanks are also due to Mr. S.Y. Amargolkar, Mr. S.B. Kapatkar and Mr. V.S. Madalli.

Finally, I would like to acknowledge the constant support and encouragement from my family, in particular, my wife, Gayathri, and kids, Niranjan and Naveen, without whose co-operation and understanding this work would not have been possible. My brothers and sisters have been a source of inspiration.

This work was supported in part by UGC (New Delhi).

Dharwad
date: 7.7.1993

J.S. Bhat