

ACKNOWLEDGEMENT

I feel a great privilege and pleasure to express my deep sense of gratitude to my mentor **Dr. S. C. Patodi**, Professor of Structural Engineering and Head of Applied Mechanics Department, Faculty of Technology and Engineering, Baroda for his valuable guidance, encouragement and generous help throughout the progress of my research work. I sincerely thank him for constant inspiration and constructive suggestions about the work carried out during this study. The content of this thesis would not have been that it is without his special attention towards my study.

I would like to give my thanks to **Dr. H. V. Trivedi**, Director, Nirma Institute of Technology, Ahmedabad and **Prof. G. N. Patel**, Head, Civil Engineering Department, Nirma Institute of Technology, Ahmedabad for their encouragement and all necessary support during the research work.

My special thanks to **Dr. Haresh S. Bhatt**, Scientist, Space Application Centre, ISRO, Ahmedabad for his valuable help in application development using WebDedip during initial phase of my work.

I am thankful to faculty and staff members of Applied Mechanics Department, Faculty of Technology and Engineering, Baroda for their kind interaction and support during the work.

I am also thankful to all my colleagues, friends and well wishers for their eagerness to help me at all times throughout the study.

I am very much grateful to my family members who offered me a great support and help throughout the course of my research work.

Vadodara
September 2005

Paresh V. Patel