

## ACKNOWLEDGEMENTS

I would like to express my deep sense of gratitude to my family members for their moral support and constant encouragement during this study.

I take this opportunity to extend sincere thanks to my thesis supervisor Dr. CS Narayanamurthy, for his able guidance.

I am gratefully indebted to Dr. Arun Anand, for his untiring help and active support throughout the course of this work.

I am highly thankful to my friends and well wishers, whose generous cooperation and active help have been instrumental in completion of this work.

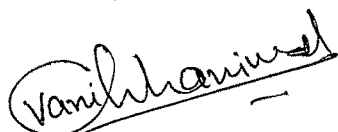
I express my thanks to Dean, Faculty of Technology & Engineering, Head and staff members of Applied Physics Department for their co-operation.

I thank Council of Scientific & Industrial Research (CSIR), Government of India for awarding Senior Research Fellow (SRF) and Government of Gujarat for awarding Research Scholarship.

I thank IIT<sub>Delhi</sub> and Institute for Plasma Research (IPR) for providing library facilities.

This work would not have been possible without the project grants from All India Council for Technical Education (AICTE), Government of India, Department of Science & Technology (DST), Government of India and University Grants Commission (UGC), Government of India.

Last, but not least I thank everybody who directly or indirectly helped me during my research work.

A handwritten signature in black ink, appearing to read 'Vani K Chhaniwal', written in a cursive style with a horizontal line underneath.

(Vani K Chhaniwal)