ACKNOWLEDGMENT

First and foremost, I would like to express my special appreciation and thanks to my advisor Dr. (Miss) R. H. Patel. Associate Professor and Head, Materials Science Department, she is a tremendous mentor for me. I would like to thank her for encouraging my research work and for allowing me to grow as a research scientist. Her advice on both research as well as on my career have been priceless.

My special thanks to all teaching and non-teaching staff members of the Department of Materials Science and staff members of USIC, Academic and UGC staff, Sardar Patel University for their benevolent cooperation.

I wish to convey my sincere thanks to Prof J. S. Parmar, Late Prof. N. K. Patel, Prof. R. G. Patel, Prof. H. S. Patel, Prof. R. M. Patel (Ex-Professor of Chemistry Department), Prof. U. H. Patel, Head, Department of Physics and Prof. B. H. Patel, Head, Department of Electronics, Sardar Patel University for their interest, encouragement, fruitful suggestions and valuable help.

My sincere thanks to Prof. V. S. Patel, Director of SICART for giving permeation to analyze the sample.

I wish to convey my sincere thanks to Dr. Gautam Chauhan, Dr. Sanjay Patel, Dr. Mitesh Patel, Mr. Nikunj Patel (SICART Technical Staff members), Dr. Mehul Patel and Dr. Navin Talpada (Reader, Chemistry Department) for analysis of the samples.

I would like to extend my sincere thanks to my senior Dr. H. B. Patel and juniors Mr. K. S. Patel and Mr. Amin Hirani for their help and cooperation.

I am grateful to Dr. Soni, Manager, Research and Development of Atul Pvt. Ltd. for supplying liquid epoxy resin (DGEBA).

I am grateful to the University Grants Commission (UGC) Govt. of India for providing me financial support as a project fellow under UGC major research project.
The never ending process of unsurpassable devotion, love and affection, which was showered upon me by my father Dineshchandra, mother Shakuntalaben, father in law Bhavinbhai, mother in law Truptiben, sister in law Aayushi and all family members who have enlightened my path and always boosted me to go ahead to reach the goal.

Last but not the least, I would like to express my real sense of gratitudes to my beloved life partner Payal for her continuous support, understanding and loving son “Vraj”.

Date: /08/2014

Mayank D. Shah