ACKNOWLEDGEMENT

To every beginning there is an end. The journey of a thousand miles ends with one step. Today as I take the step of culminating my work I feel most privileged to express my unfeigned gratitude to Dr. B.R.K. Gupta, Head, Department of Physics, who through his expertise has helped me right from the inception, collection, collation and completion of my thesis which initially seemed to be inaccessible riddle for me. His profuse guidance, unstained faith & effective advise enabled me to pursue relentingly my goal.

I am grateful to Shri Narayan Das Aggarwal, Chancellor GLA University, Mathura and Prof. D.S. Chauhan, Vice-Chancellor, GLA University, Mathura for provided the research oriented infrastructure and environment in the university.

With profound sense of gratitude I extend my heartfelt thanks to members of my advisory committee, Prof. Anoop K. Gupta, Director, Institute of Applied Sciences and Humanities; Prof. Anirudh Pradhan, Dean R & D, Department of Mathematics, Dr. A.M. Aggarwal, Dean Academic affairs and Director IBM, Prof. D.K. Das, Head, Department of Chemistry, Prof. A.K. Bhatia, Head, Department of Biotechnology; Prof. Vinod Agrawal, Department of Physics; Prof. (Dr.) R.P. Singh, Department of Physics; Prof.(Dr.) Anuj Vijay, Department of Physics for their advises, valuable suggestions, discussions and encouragement during the course of present research work.

My sincere and deep sense of gratitude goes to all my colleagues for their motivation and moral support at every stage of my research work. I am thankful to Mr. Rajendra Kumar for helping me in formatting the thesis whenever required.

My tribute will not be complete unless I pay deep sense of gratitude towards my parents who have been a source of inspiration and encouragement for me. Their constant support instilled sense of responsibility and confidence into me who helped me throughout the study. Finally, I wish to thank everyone who helped me directly or indirectly during the course of investigation.

(Neetu Sorot)