Acknowledgement

“No bird soars too high if he soars with his own wings”
First and foremost, it is the blessings of almighty GOD who has guided me throughout my work and helped me by making every tough phase smooth and easy.

I believe that however strongly people claim about the success of the research being due to their effort, there has always being a guiding factor involved which has in some way or the other helped them to reach their goal.

I would like to take this opportunity to thank all the persons whose constant encouragement and guidance has helped me with this thesis work.

I am extremely thankful to Suresh Gyan Vihar University, Jaipur, Rajasthan which gave me the opportunity to work on the doctorate and am equally thankful to my working organization Samanvay Pratishthan’s Institute of Knowledge – College of Engineering Pune to give me the infrastructure to experiment and implement the model of my research.

Studying at Suresh Gyan Vihar University, Jaipur, Rajasthan was always very encouraging. Whenever I approached the university, all the college staff was always very prompt to help a research candidate. They realized the importance of time and effort, which a research candidate has to come across.

I express my special and sincere thanks to Prof. (Dr.) Sudhanshu Sharma, Chancellor, Suresh Gyan Vihar University, Jaipur, Rajasthan for his motivation and support and for creating a very supportive academic environment and his constant personal interest in the benefits of the students. Because of his great mission and vision, numerous students are able to learn with a ideal scholarly environment.

I am thankful to Prof. B.K.Verma, Chancellor, Suresh Gyan Vihar University, Jaipur, Rajasthan for constantly encouraging during my research work.
I express my deep sense of gratitude to Dr. S.C.Dwivedi, Dean-Research, Suresh Gyan Vihar University, Jaipur, Rajasthan for his filial affection, cooperation and help in giving shape to the research work. With his support I was able to work persistently during this long duration.

I offer my heartfelt thanks to Honourable Vasantrao ji Davkhare Saheb, Dy. President of Maharashtra Vidhan Parishad who gave me an opportunity to carry out the research work and the immense support wherever necessary. As Founder Trustee of Institute of Knowledge – College of Engineering Pune, Honourable Davkhare Saheb, blessed me with this opportunity to complete this research.

I express my deep sense of gratitude to Honourable Shri Niranjanji Davkhare, MLC Member of Maharashtra Vidhan Parishad and President of Student National Congress Party of Maharashtra State for his filial affection. As Chairman of Institute of Knowledge – College of Engineering Pune and President of Samanvay Pratishthan, Thane, he always cooperated and helped in giving shape to the research work.

I do not find adequate words to express my sentiments properly and my deepest regards and gratitude to my esteemed guide, Prof. Vijay Singh Rathore, Director, Shree Karni College, Jaipur. It is only because of his erudite guidance, continuous pains and indefatigable zeal for research that this work could take at the present shape. At the every stage his guidance was extended to me. I shall remain grateful to him forever.

I thank sincerely the Technical Expert, Dr. P.D. Murarka, Suresh Gyan Vihar University, Jaipur, Rajasthan, who grilled my work with his experience at Indian Institute of Technology, Kharagpur and helped me to restructure the work with resilience.

I am thankful to Dr. R.S.Jahagirdar, Senior Professor and Principal of Institute of Knowledge – College of Engineering Pune for his incredible support and
motivating by implanting seeds of research also for his valuable help during the research work.

I am express my sincere gratitude to Smt. Nilima Niranjan Davkhare, Trustee of Institute of Knowledge – College of Engineering Pune, she realized me the time and effort management during my work and was always very prompt to help me as well as encouraging to complete my research work.

I offer my heartful thanks to Shri Prabhakar Lale, Trustee of Institute of Knowledge – College of Engineering Pune, who taught me time management which is most important for a research candidate.

I express my sincere thanks to Principals and professors of various colleges for providing me time to time input on the proposed model of e-learning and participating in the survey and results part to give the valuable feedback on the model.

I express my thanks to Professor N.J. Rao, Indian Institute of Information and Technology, Bangalore and Professor Debrata Bagchi, Indian Institute of Information and Technology, Bangalore and other faculty members and non-teaching staff of my department for their helping attitude during the course of the present work.

I sincerely thank the staff members of my college of computer department and students of the computer department of Institute of Knowledge – College of Engineering Pune for using, evaluating and appreciating by giving valuable feedbacks.

My respected grand parents Late Shri Basant Lal Sharma and Late Smt. Narmada Devi Sharma and my respected parents Shri Narottamlal Sharma – Smt. Sumitra Devi Sharma, have always been the source of inspiration to me at every stage in life: words fail to express my indebtedness to them. Their succor and sustenance, their confidence in me remains unsurpassed.
My mother-in-law Smt. Uma devi Sharma and father-in-law Shri Pramod Sharma also need to be mentioned here, as they have been a constant source of inspiration throughout my research.

The person who has been my pillar of strength and support throughout my research and who has been always been my side as and when needed was none other than my brother, Mr. Narendra Sharma and Smt. Ranjana Sharma.

I am also thankful to Mr. Jatin Sutaria, project leader and Mr. Dattatraya Deorukhkar, project leader of reputed multinational software companies in USA.

I would like to thank my friends many of whom I have made along the way. They have helped me, one way or another, in the completion of this thesis.

A special note of thanks to Dr. Yuvraj Singh, Director, Shree Karni college and Dr. Gulab Singh, Chairman, Shree Karni college for their kind concern.

I would be failing in my duty if I were not to acknowledge the immense help and confidence building measures taken my better half Smt. Parul Sharma. She shared my responsibilities during research tenure and make me free for studies. Her moral support always encourage me to complete this work on time.

My loving kids Vansh and Vriddhi also deserve special thanks for their motivated presence. Certainly I have taken their time. I also wish to render sweet love to my nephews Naman and Prateek at this juncture. I pay my affections to all my cousins and family members for their tangible and in-tangible support.

Last and again it is the blessings of almighty GOD “Shree Chaar Maruwa Chamtakari Balaji”, that brings me to this position.