Acknowledgement

During the course of this research, I was fortunate to interact with a number of academicians that influence the direction and quality of my work. First I would like to express my gratitude to Prof. Tilendra Shishir Sinha and Prof. Ravi Prakash Dubey for their outstanding guidance, support and cooperation. They were always available to advice me on technical and theoretical problems and gave me the opportunity to learn about the fascinating world of digital image processing and application to different security department thus help the mankind from different crime. They were always been ready to help me in difficult moments and to guide in the right direction. This was very difficult and I really thankful for their patience to supervise my work, I also learned from the hard way and from the mistakes. This work would not been completed without a diligent supervisor like them.

Very special thank to Dr. Tilendra Shishir Sinha and his family for their able support and help that came at a very crucial moment in the research work. I also thank him for his worthy feedback on the text of this dissertation, for his recommendations on improving the work and for helping me with the final arrangements of the defense.

I also like to convey thanks to all faculty of computer science and Engineering department and other department of RCET, Raipur. Also I would like to convey my heartiest gratitude to the technical and non-technical staff members of CSE departments.

The Department of Computer Science and Engineering in CVRU Bilaspur gave me the opportunity to the part of the research program (Ph. D.). I am grateful for the learning experience I got from being exposed to such a learning environment.

I also thank all my colleague Saurabh Agrawal, Huma Khan, Dr. D. N. Dewangan, Dr. Pravin Borkar, Prof. Virendra Nayak, Dr. A. G. Kulkarni and assistants from other department of RCET, for opening my mind to a new knowledge and helping me in collection and capturing the images for development of the corpus for completing my research work.

Finally, I would like to give my thanks Dr. Rohit Raja a fellow research scholar for constant encouragement and support during my course of work. I thoroughly enjoyed conducting research work alongside with him.
My work would not be possible without the constant inspiration, support and love of my family. I dedicate my work to my parents and my wife. I would like to thank my parents and my wife for their moral support and continuous encouragement. I also, feel an immense pleasure in expressing my thanks to my son Divyansh and Tejash and all members of my family for their continuous encouragement and scarifying their time during completion of the research work. At last but not the least I also give my heartiest thanks to my friends for having the right word that encourage me to the best effort.

Raj Kumar Patra