DECLARATION

I hereby declare that the entire work embodied in this Doctoral thesis titled ‘Advanced Image Processing Techniques and Algorithms for Classification of Semi-urban Land Use/ Land Cover Features using High Resolution Satellite Data’ has been carried out by me at Malnad College of Engineering (MCE), Hassan, under the supervision of Dr. Shiva Prakash Koliwad, Professor and Head, Dept. of Electronics and Communication Engineering, MCE, Hassan, and Dr. Dwarakish G.S, Assistant Professor, Dept. of Applied Mechanics and Hydraulics, National Institute of Technology Karnataka, Surathkal. This thesis has not been submitted in part or full for the award of any diploma or degree of this or any other University.

Date: 5th February 2010

(Ashok Kumar T)
USN: 4MC04PEN01, Research Scholar,
Dept. of Electronics and Communication Engg.,
Malnad College of Engineering, HASSAN- 573 201
Acknowledgements

I express my deepest gratitude and respect to my guides Dr. Shiva Prakash Koliwad, Professor and Head, Department of Electronics and Communication Engineering, Malnad College of Engineering, Hassan, and Dr. Dwarakish G. S, Assistant Professor, Department of Applied Mechanics and Hydraulics, National Institute of Technology Karnataka (NITK), Surathkal, for their valuable guidance, encouragement and enormous patience. Despite their tight schedules, they have given their time generously to discuss my research progress, comment on my working papers and give suggestions for the smooth progress of the work. I am also thankful to my guides for introducing me to the fascinating world of remote sensing which has created deep interest in me to continue research further.

I thank Dr. Sathyanarayana M. V, Principal, Malnad College of Engineering, Hassan, for his advice at every stage of the work. I extend my gratitude to Prof. Sandeep Sancheti, Director, NITK, and Prof. Lakshman Nandagiri, Head, Department of Applied Mechanics and Hydraulics, NITK, Surathkal, for having provided the data and staff-support throughout this work. Special thanks to Prof. S. S. Murthy, Former Director, NITK, and Prof. Vittal Hegde A, Former HOD, Department of Applied Mechanics and Hydraulics, NITK.

On more personal level, I thank the Management of Vivekananda College of Engineering and Technology (VCET), Puttur, for their encouragement and co-operation which helped me to speed up my work. Special thanks to Prof. Radhakrishna Karanth P, Correspondent of VCET, and Mrs. Vandana Shankar, Lecturer, Dept. of English, VCET, for sparing their valuable time and untiring assistance in the preparation of the manuscripts. I am grateful to the anonymous referees for providing constructive comments which improved the quality of this thesis. I acknowledge the suggestions and help I received from the research coordinator, my colleagues and well-wishers, and the strong moral support rendered by my family members with their endless patience and understanding during the long hours of the study.

Ashok Kumar T
February 2010