Acknowledgments

Firstly, I would like to express my sincere gratitude to my Ph.D. Thesis Supervisor, Professor Deepak M. Fulwani. He always had time for the empirical and constructive discussion from his schedule, tightly packed with academic and administrative responsibilities. I am thankful to him for his continuous efforts to inculcate the positive motivation in me and his continual guidance, generous support and patience, especially during the times of my slow progress. He introduced me to the field of sliding mode control and its use in the power applications. He gave me ample opportunities for the relevant exposure at conferences, despite limited resources. Professor Fulwani, has been my continuous source of inspiration in shaping up my world of academic and research, morals and ethics.

I thank Vinod Kumar, Kumar Gourav and Rammohan for their help and support in the development of hardware and its implementation during their engagement in the sponsored research projects under Professor Fulwani.

It's always been a pleasure and opportunity to work with my seniors Dr. Suresh Singh, Dr. Om Prakash Mahela, Dr. Ram Niwas Mahia and Raj Kumar Satankar who have been my constant source of inspiration through their 'can do' attitude and perseverance. My special thank goes to my laboratory colleagues, Nupur, Shivam, Rammohan, Poonam and Mohit for their motivation and support throughout my research work. I thank Jitendra and Arimardan for their wonderful company and for all the liveliness they infused into the non-academic portion of the days at IIT Jodhpur. I thank my all friends who made my days at IIT Jodhpur a truly memorable experience...

Finally, I acknowledge and express my deepest gratitude to my Family for the patience, support and love which they ushered on me, and for bearing with me even when I was not spending any time with them. I pay utter regards to my parents, brothers and sister for all their love, sacrifices and blessings, and a lot of love to my nephews, Samyak and Arush.

Aditya R. Gautam
Ph.D. Student