ACKNOWLEDGEMENTS

Initially, I would like to thank my supervisor Prof. Rajaram S. Mane for introducing me to the field of supercapacitors and giving me the great opportunity to work with him in such a healthy and scientific atmosphere. He always faith on me and give me encouragement during my research work. During this I learn scientific approach, positive approach and always try to generate some new ideas.

Along with parents, Shri. Hariba P. Shendkar and Sow. Tanyabai H, Shendkar, my wife Surekha J. Shendkar and sons Narendra and Devendra have a constant source of encouragement throughout my life and most important persons in my life.

I express sincere thanks and hearties appreciation to Mr. Manikrao Jadhav, President, Mr. Vijaykumar Shinde, Secretary, Sant Janabai Education Society Gangakhed and Dr. B. M. Dhoot, Principal Sant Janabai Education Society's ACS College Gangakhed, Vice Principal Dr. D. G. Ujalambe, for their moral support.

Also, I thank teaching staff at the School of Physical Sciences, Prof. A. C. Kumbharkhane, Prof. M. K. Patil, Prof. (Mrs.) M. P. Mahabole, Dr. A. S. Sarode and Dr. K.A. Bogle for their moral support for research works. Also, I express my gratitude to, prof. khairnar R. S. Director, School of Physical Sciences, for his kind help and support.

It gives me immense pleasure to place on record my sincere thanks to many of my friends and colleagues for extending their kind co-operation on various occasion Mr. Panchal V. B., Mr. Ladda R. G., Mr. Giram R. P., Mr. Satonkar S. S., Dr. Kshirasagar S. V., Dr. Dhage S. D., Dr. Dudhbhate M. M., Mr. Mandlik G. G., Dr. Surve sir, Dr. Kolpe S. H., Mr. Bhurke G., Dr. Udhav Aghav, Mr V. Latpate and Mr. P. Bele.

This work could not have been completed without the support and assistance our foreign collaborators, Prof. S-H Han, Inorganic Nanomaterials Laboratory, Hanyang University, Seoul and Prof. O-S Joo, Clean Energy Research Centre, Korean Institute of Science and Technology (KIST), South Korea. I also express gratitude’s to Dr. Shoyeb, Dr. Dipak, and Dr. (Mrs.) Supriya, who helped me in taking all the advanced characteristics like XRD, SEM, UV-vis, CV and EIS, etc.
During my Ph.D. work, I have been lucky to work in a research group that has helped me a lot and made the pleasant surrounding environment. I must express my gratitude to all my research colleagues Dr. Sambhaji Bhande, Dr. Vijay Jadhav, Mr. Sanjay Gaikwad, Dr. Manohar Zate, Mr. Sandesh Mutkule, Mr. Paresh Gaikar, Mr. Ahmed Al-Osata, Mr. Gangashekar, Mr. Jivan Kote, Mr. Ghule B. G., Dr. Kailas K. Tehare and Dr. Shivaji Waghamare for their constant help along with teaching staff Dr. S. K. Gore, Mr. V. S. Jadhav and Mr. S. U. Ekar who spend their precise time while speaking with me. I must also thankful to Satish Sonkamble, Pramod Pawar and all research scholars of “School of Physical Sciences” working with enormous enthusiasm, for noble purpose of contributing to “Science” in all.

I must not forget the constant support of non-teaching staff of “School of Physical Sciences” SRTM University, Nanded, for all the technical support they have given to me.

Janardhan H. Shendkar