PREFACE

In our day-to-day living we sometimes come across individuals who have lost their power of fluent speech due to any neurological impairment. With the loss of the smooth and accurate speech those individuals also lose their self-confidence and the jest to live wholesomely. Some even start to consider their existence as futile. My personal interactions with them motivated me to set on a quest to get a comprehensive picture of this motor speech disorder called 'dysarthria'. In the present study a humble attempt has been made to identify the speech defects of the dysarthric patients whose mother tongue is Bengali and it may help to devise suitable intervention measures.

For making this study possible first I would like to thank GOD who gave me the energy to complete my research work.

I am extremely grateful to my teacher Dr. (Mrs.) Krishna Bhattacharya, Professor, Department of Linguistics, University of Calcutta and would like to profusely thank her for the invaluable guidance and advice at every stage of the work. Without her critical comments and suggestions this study would not have been completed.
I am immensely grateful to Dr. Trishitananda Roy, Honorary Professor of Department of Neuromedicine, former Director of Bangur Institute of Neuroscience and Psychiatry (previously known as Bangur Institute of Neurology), who happily agreed to be a part of my research and permitted me to collect the data from the out patient department. I am sincerely thankful to him for answering all my queries and clarifying all my doubts related to Neurology.

The sections on the acoustic analysis of the Bengali speech sounds would not have been at all possible without the guidance of Prof. Asoke Kumar Datta, former Professor, Department of Electronics and Communication Sciences Unit, Indian Statistical Institute. I am extremely grateful to Professor Datta for his untiring monitoring which enabled me to learn practically about how to study spectrograms.

My heartfelt thanks are due to Dr. Avijit Hazra, Reader, Department of Pharmacology, Institute of Postgraduate Medical Education and Research, Kolkata for his valuable suggestions. His generous support enabled me to do the relevant statistical analysis needed for the study.

I am sincerely thankful to Dr. Amita Pal of Applied Statistical Unit at Indian Statistical Institute, who permitted me to use the Multi
Dimensional Voice Program (MDVP) software. I also thank Madhuri who taught me to use it.

My heartfelt thanks to Dejani and Rituparna who kindly agreed to be the raters to make the study more objective.

I am sincerely thankful to Ms. Madhabi Indu, a renowned speech therapist for her cooperation and valuable suggestions. I benefited a lot from the prolonged discussions with her.

I also offer my heartfelt thanks to all the doctors and staffs of Bangur Institute of Neuroscience and Psychiatry who kindly offered their support during my period of data collection at the Out patient department.

I express my sincere thanks to all the normal and dysarthric subjects for their unstinted cooperation. Without their inputs this work would not have been possible.

I thank Mr. A.K. Sinha, Mr. Shamim Ansari, Mrs. Sravanti Khemka of Ali Yavar Jung National Institute for the Hearing Handicapped and Dr. A. Das of Peerless Hospital for their helpful comments.
I sincerely express my gratitude to all my respected teachers Prof. Dr. Subhadra Kumar Sen, Prof. Dr. Mrinal Kanti Nath, Prof. Dr. Sumita Bhattacharya, Prof. Dr. Kishore Kumar Rahri, Dr. Mina Dan, Dr. Selvyn Jussy and Dr. Abhijit Majumder, who taught me at the Masters.

I would also take this opportunity to thank Mr. Saikat Sanyal for his kind cooperation whenever I needed it during my tenure as a UGC research fellow.

Last but not the least, I am indebted to my parents who encouraged me to take up the challenge of this research work and constantly supported and motivated me in the going. I am also grateful to Shona for the endearing patience and understanding. Their thoughtfulness helped me to stay focussing on my research work and thus helped me to complete it without any hindrance.

(Nilantika Chakraborty)