ACKNOWLEDGEMENT

Many individuals have been responsible for my successful completion of the research work presented in this doctoral thesis. I wish to express my grateful thanks to all of them as I believe that it is because of their support and good will that I have been able to cross this wonderful milestone in my life.

First and foremost, I wish to express my sincere thanks to our Chancellor Thiru. V. R. Venkataachalam, Pro Chancellor Dr. T. K. Parthasarathy, Pro chancellor (Research) Dr. S. P. Thyagarajan, Vice Chancellor Dr. S. Rangaswami, Dean of Faculties Dr. K.V. Somasundaram, Director, Academic Administration Dr. D. Gnanaprakasam, Controller of Examination Dr. Vijayalakshmi Thanasekaraan, for permitting me to pursue my research study as well as for their constant encouragement and relentless support.

My profound sense of gratitude for my Guide, Dr (Mrs.) Kalpana Balakrishnan, Professor and Head, Department of Environmental Health Engineering and also Director, WHO collaborating center for Occupational and Environmental Health. Her continuous support, inspiring guidance, patience and personal attention every step of the way has contributed enormously to build my research capacities.

Several staff members of my host Department of Environmental Health Engineering have treated me like family, supporting me in professional and personal capacities in numerous ways. Mr. Santu Ghosh and Dr. G. Thangavel meticulously helped me with data analysis. Mr. R. Ayyappan lent wonderful assistance with PAH sample extraction and analysis at University of California Berkeley (UCB), USA and supported me in field air sampling. D. Venkatesan provided field assistance in exceptional ways and without his devotion much of the field and laboratory work would not have been possible. Dr. Anandh, Mr. Arul Selvam, and Mr. Satish provided valuable field and laboratory support. Dr. R. Padmavathi, Professor, Department of Physiology, Sri Ramachandra University
supported me greatly while analysing and describing the voluminous data. Her support provided me confidence and encouragement that were instrumental in the submission of this thesis. I would like to thank Dr. Vidhya Venugopal and Dr. Krishnendu Mukhopadhyay for reviewing my thesis. To all of them I wish to express my sincere gratitude.

Several international collaborators of the EHE department were responsible for building my capacities. Dr. Kirk Smith, Dr. Katherine Hammond and Mr. Charles Perino of University of California Berkeley (UCB), USA helped me with coursework, laboratory extraction and analysis as well as nurtured my interest in indoor air quality issues with unmatched enthusiasm. I acknowledge their contributions with much gratitude. My special thanks to Kseniya Lvovsky, Sameer Akbar and Priti Kumar of the World Bank for their technical inputs during executing and completion of some of the project components in Andhra Pradesh.

I acknowledge the support received from funding agencies UNDP, World Bank (ESMAP) unit, without which this research work would not been possible.

I wish to express my gratitude to the village administrative officers, women, and head of the family of the study households without whose graciousness we could not have executed the study.

I pay my humble respects and tribute to the late Founder Chancellor of SRU, Sri. N. P. V. Ramasamy Udayar, whose visionary educational concept has transformed my once distant dream of acquiring a doctoral qualification into a reality.

I dedicate this research work to my wife Mrs. S. Yamuna, who was extremely objective and supportive in completion of my research work. I extend my profound appreciation to my wife for sustaining my family during my physical absence during much of the course of this work. Her visionary thoughts have been instrumental in the development of my career. I would like to appreciate my daughter S. Shakthe Priya and son, Master S. Suba Shakhthivel for their cooperation for completing my thesis.