ACKNOWLEDGEMENT
ACKNOWLEDGEMENT

The author places on record sincere devotion to the Lord of Seven Hills for the successful completion of her thesis work. Words cannot express the strength and guidance cherished by submission to almighty.

The profound gratitude deep from the heart are due to my guide and Research supervisor Dr. K. Meena, M.Sc., M.Phil., M.E., M.I.E., Ph.D., Principal & Head, Department of Computer Science, Shrimati Indira Gandhi College, Trichy for all the motivation, support and encouragement. The author is very much grateful for her guidance, meticulous way of correcting the thesis and all the untiring effort and interest shown in doing a real scientific work all these years.

The author is thankful to the management of Shrimathi Indira Gandhi College, Trichy and Sri. S. Kunchithapadham, the secretary of this esteemed Institution for all the facilities and help provided to carry out the research work.

Next the author thanks the benevolent management of Seethalakshmi Ramasami College for permitting to take up the research work. In the life time the author cannot forget the motivation and support rendered by the secretary Sri. R. Panchapakesan and Smt. Vasantha Panchapakesan but for whom, the author could not have presented research papers at International Conferences.
The author expresses very sincere thanks to Dr. K.R. Subramanian, Professor of Mathematics, Shrimath Indira Gandhi College, Trichy for the meticulous support and encouragement rendered at every stage of the research work.

The author is thankful to the American Diabetic Association and National Institute of Digestive and Kidney Diseases for providing valuable data, through web to analyze the cause of diabetes in Pima Indian Women Population. It was of great utility in shaping up the research work.

The thanks are also due to Dr. R.M. Pitchappan, Head School of Biological sciences, Madurai Kamaraj University, Madurai and Consultant, All India Institute of Medical Sciences, New Delhi, for all the help rendered in data Collection about genes.

The author places on record her gratitude to the Principal and Colleagues of Seethalakshi Ramasami College, Trichy. The support and co-operation rendered by the family members and well wishers for the successful completion of the research work will also be remembered forever.

The author is very grateful to the Non-teaching staff of Shrimathi Indira Gandhi College, Trichy for their valuable support in carrying out the research work. The hearty thanks are also due to Mr. J. Charles and Miss. S. Lilly for typing the thesis in a sincere and efficient manner.
Finally the author offers pranams to her *mother Smt. R. Kamalavalli*, at heaven to shower the blessings on her and her Guide for the successful completion of the research work. She was lost by diabetes and the work is dedicated to the loving memory of herself.

[R. Jamuna]