ACKNOWLEDGEMENT

The author is grateful to the Vice-Chancellor and the authorities of the Anna University, Chennai for providing facilities and financial support. The author expresses his profound sense of gratitude to his research supervisor, Dr S GANAPATHY, DEAN, MIT, for his keen interest, constant support and encouragement. The author greatly acknowledges the support rendered by Prof K R SESHADRI. The author immensely thanks Prof S VENKATASWAMY, Head, Production Technology, MIT and Prof V SIVASANKARAN, Head-in-Charge, Division of Rubber Technology for their support and help.

The author is very thankful to Tamil Nadu State Council for Science and Technology and Indian National Science Academy for awarding Young Scientist Fellowships to him to carry out some of the experimental work in the institutions viz., Rubber Technology Centre, IIT Kharagpur, Rubber Research Institute of India, Kottayam and the VSSC, Thiruvananthapuram.

He wishes to thank his colleagues of Division of Rubber Technology for their support and co-operation. He immensely thanks the sponsors of the on-going projects in his department for providing materials and test facility. He records his sense of gratitude to his colleagues of other sister departments of MIT. He wishes to place on record his sincere thanks to his students and the various rubber industries who extended all their support and co-operation.

The author is thankful to his wife, sons and his other family members for their understanding and support.

V SUBRAHMANIAN