

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS



IETE
SERIES 1

IETE
THE
FIRST
FOUR
DECADES

Ramadas P Shenoy

IETE

THE FIRST FOUR DECADES

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Advanced Scientific Research
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Telecommunication Engineers, New Delhi.

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FOREWORD

In the last four decades, the IETE has grown in size and stature to become India's premier technical professional society engaged in advancing the science and technology of electronics, telecommunications, computers and related areas. Through its well established and innovative technical programmes, various useful membership services like update/continuing education in new and emerging areas, publications, consultancy etc., and excellent career opportunities for the student members, the IETE has attracted commendable attention in India and abroad. Besides, IETE has provided a very good forum for scientific and technical personnel to discuss on all matters connected with the development of the above high-tech areas in the country and stimulate education, R&D, industry and applications in these areas.

In this same period, India's capabilities in these areas have also grown in a remarkable way. And, there appear to be many linkages between the growth of IETE and the overall electronics development in the country. These linkages have been studied and investigated in detail by the author, Prof. R P Shenoy who has brought out the findings in his inimitable style in this interesting book. Prof. Shenoy being an IETE founder member and a distinguished scientist, had occasion to see these linkages from close quarters for many years and also actively participate in electronics development in India. This has greatly added to the value of the book.

As I understand, this is the first attempt to review the growth of IETE in relation to the progress of electronics in India. It would be a good idea to conduct such

a review periodically, say once in a decade, to facilitate corrective steps, if any.

I would like to thank Prof. Shenoy for accepting the invitation of the IETE Council and undertaking this difficult task of preparing the book in a time bound manner. I am sure, our members and other readers will find the book interesting and educative, and the book will be a fitting memento for the 40th Foundation Day of the IETE.

Sept 8, 1993
Bangalore

B S Sonde
President

PREFACE

"The IETE The First Four Decades" has come about as a result of the attempt to relate the growth of the Institution with that of electronics in India through the expressed opinions of the Presidents of the Institution, the Chief Guests at the Annual Sessions and the Speakers who delivered the annual Bhabha Memorial, Sarabhai Memorial and Ram Lal Wadhwa Lectures over the four decades. These were persons of eminence and distinction who were involved in the development and the growth of electronics and telecommunications in the country in this period either as policy makers, industrialists, Users, educationists or as R&D scientists.

Though it would have been ideal to reproduce in full, the Addresses and Lectures which are representative of the dominant viewpoints of the period, and which are informative in content, it would have made the task of tracing the growth of electronics in India and relating it to the growth and expansion of the activities of the Institution, more difficult. Therefore, only relevant extracts from these speeches have been taken and the growth of the Institution and that of electronics in India have been woven in, to form a composite scenario against the background of the economic and the political factors affecting the nation and the world. It is evident that the Institution has been looked upon by the technologists, the scientists, the industrialists, the administrators and the politicians as an important forum to put forward their views on policies and other important aspects concerning the field of electronics. It is also clear that the Institution has steadfastly adhered

to its founding objectives of promotion of activities in electronics, providing continuing education, and formulating an integrated view point reflecting the opinion of the members to those who sought its counsel and advice. The Institution has therefore emerged as an important non-governmental organization in matters relating to electronics by the end of four decades.

It is true that the country's experience with planning for electronics over the last thirty years has been less than successful because of the inability to master the dialectic between the logic of pursuit of knowledge and that of the requirements of the economy. Consequently, in the 1990s India is more vulnerable to the vagaries of the global market forces and also to the restrictive practices imposed by the Governments of the developed world in trade and technology. The nation has to evolve a technology policy which synthesizes the objectives of technology with those of the economy while respecting the logic of both. Only then, would it be possible for the nation to develop and foster organizations or "stables" in racing parlance, from which the largest possible number of winners will emerge.

In recent years, the relationship between technology and economy has undergone a sea change and therefore a reassessment by professional engineering societies about their role in the coming decades is desirable.

Aug. 1993
BANGALORE

Ramadas P Shenoy

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"IETE—THE FIRST FOUR DECADES"

This volume traces the growth of the IETE over four decades of its existence, through the expressed opinions of the Presidents of the Institutions, Chief Guests at the Annual Functions, and the Speakers who delivered the Bhabha Memorial, Sarabhai Memorial and Ram Lal Wadhwa Lectures. The growth of the Institution and that of electronics is woven in to form a composite scenario against the background of the economic and the political factors affecting the nation and the world. The author brings out that the IETE has emerged as an important non-governmental organization and as a foremost professional society over these four decades. Scientists, technologists, industrialists, administrators and politicians have all used the forum of the society to express their views and policies concerning electronics.

About the Author

Ramadas P Shenoy is a scientist known for his contributions to the development of radar technology in India. He served the Defense R&D organization, in various capacities, including as Director, Electronics & Radar Development Establishment, Bangalore and later as a Distinguished Scientist. Dr. Shenoy has been with the Indian Institute of Science, Bangalore since 1990 as Visiting Professor and with the Jawaharlal Nehru Centre for Advanced Scientific Research since 1993. He has been the recipient of many national awards such as the VASVIK award, the first IETE-IRSI award and the Padma Shri from the President of India. He is a Fellow of IETE.