

# Preface

The Indian National Academy of Engineering (INAE) advocates, encourages and practices excellence in all endeavours in engineering, technology and related sciences to meet the challenges and find solution to the problems of national importance. INAE provides an active and interactive eminent forum to augment and expedite developmental activities in India, especially those related to engineering and technology. Its activities include formulation of technology policies, promotion of quality engineering education and R&D. The INAE represents India at the International Council of Academies of Engineering and Technological Sciences (CAETS), and currently the INAE leads the Council.

The initiative, the first of its kind, taken by the INAE to publish this book—*The Mind of an Engineer*—is an attempt to reflect the personal experiences of some of its Fellows in the fields of science, technology and engineering. The book deals with the reminiscences, eureka moments, inspirations, challenges and opportunities in the journey of the professionals towards achievements and self-realisation. The book contains 58 chapters on diverse subjects that depict the beauty and diversity of the mind. It truly reflects the way the mind of an engineer works. Engineers have meaningful and constructive minds. The meaning of the mind is understood in the context of the basic needs, orientations, experiences, emotions and consciousness of an individual. Meaning is interactive, selective and value-driven. It is said that meaning is like a large map or Web, gradually filled in by the cooperative work of countless generations. The world is changing, and to keep pace with the new world, new creative minds are evolving. Some new realities are arising. Some old issues shall remain and some old ones will be forgotten. Truly as the Millennium Project of the UN says “Some future issues are further in the future than others”. One of the future issues of engineering relates to how technology would influence a growing mind, and what would be the consequential ethical obligations of engineers to the society.

We thank Dr. B.N. Suresh, President of the INAE, the Editorial Board of the INAE, and our Fellow colleagues of the INAE for their valuable contributions in publishing this compendium. Their expertise, views and perspectives, we hope, will

be meaningful for the engineers, particularly the young professionals. This book would not have been possible without the generous support of the officials of INAE, ably led by the Executive Director Brig. Rajan Minocha and the former Executive Director, Brig. S.C. Marwaha. We thank all of them most sincerely. We gratefully acknowledge the editorial help and support of Dr. Subimal Sinha Roy, Mr. Aninda Bose, Ms. Kamiya Khatter, and Mr. P.K. Manoharan. Seeing the response of our colleagues, we hope to develop a sequel of the book. We keenly look forward to receiving your impressions and response to enrich the future volumes of *The Mind of an Engineer*.

Purnendu Ghosh  
Baldev Raj

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Ghosh, P.; Raj, B. (Eds.)

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