

PREFACE

Beam Technology Development Group (BTDG) has decades of glorious research experience in Lasers, Plasmas, Electron Beam and Pulse Power systems. A need was felt to document this knowledge base for the benefit of young colleagues, research scholars and academicians. Enthusiastic researchers of BTDG were motivated to pen down their work in a simplified and engaging manner. These technical articles were thoroughly reviewed by an expert group before being compiled into three volumes viz. (i) Laser and Plasma, (ii) Electron beam and Accelerators and (iii) Pulsed Power and Applications.

It gives us great pleasure in presenting the second volume “Electron beam and Accelerators”. The exciting work carried out in the field of high power electron beam accelerators in the energy range of 0.5MeV to 10MeV is being utilized by R&D institutes, industries and societal for radiation processing applications, agriculture, cargo-scanner, flue gas treatment, food preservation, medical product sterilization, waste water treatment, ISRO solar cell irradiation etc. The indigenously developed electron accelerators at EBC are broadly highlighted in this book. Opening articles by our senior mentors who have conceived and pioneered the research activities in BARC adds technical flavor to the reader.

We are sure this volume serves the purpose of introducing current activities of BTDG in the areas of electron beam and accelerators to the interested reader. We hope this book will remain as a treasure of knowledge base for present and future generations and wish to revise and update the volumes periodically for the benefit of the techno-scientific community for faster pace of growth and success.

P. C. Saroj
Archana Sharma