



## ***From the Editor's Desk...***

The RRCAT Newsletter Editorial Board is happy to bring out second issue of the RRCAT Newsletter for year 2023 showcasing the various achievements of the Centre during the period **January - June 2023**.

The first section contains nine reports on various R&D activities associated with the Accelerator programme, which includes regular reports on the operation and usage of the two synchrotron facilities, expansion of the electron beam radiation processing facility for sterilization of various medical equipment, and development of components and utilities for the present and future accelerators. The reports devoted to the R&D activities of Laser programme are presented in the second section, which contains a total of seven reports covering various achievements in the areas of laser technology and application of lasers and to address the problems of materials science. The third section contains two reports highlighting the achievements of the Centre towards infrastructure.

Like previous issues, this edition of Newsletter also contains three *Theme Articles* appraising three chosen long term R&D activities carried at the Centre. One of them originated from the Ph. D. thesis of an HBNI scholar devoted to the study of laser-based electron acceleration. The other two articles review the development that took place at RRCAT in the areas of metal joining technology and optical thin film coating technology.

The last section on *Events and Happenings* comprises reports on the various events and functions organized at RRCAT. This section includes reports on two important functions, namely, the celebration of RRCAT's 40<sup>th</sup> Foundation Day on 20<sup>th</sup> February 2023 and National Science Day celebration at RRCAT on 25<sup>th</sup> and 26<sup>th</sup> February 2024.

The Editorial Board thanks all the contributors for their cooperation and support in bringing out this issue. We take this opportunity to express our sincere gratitude to Director, RRCAT, for his keen interest, guidance, and active support in publication of RRCAT Newsletter. We look forward to receiving constructive comments and suggestions from readers for improving the content of RRCAT Newsletter.

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**Arup Banerjee**  
Chairman, Editorial Board  
(on behalf of RRCAT Newsletter Editorial Board)