

### N.1: Shri Shankar V. Nakhe takes over as Director of RRCAT

Shri Shankar V. Nakhe, Outstanding Scientist & Director, Laser Group as well as Materials Science Group (additional charge), RRCAT took over the charge as Director, RRCAT on May 31, 2021 from the outgoing Director, Shri Debashis Das, Distinguished Scientist, who superannuated after completion of an illustrious scientific career of 38 years in the Department of Atomic Energy. A function was organized on May 31, 2021 by the Scientific Committee of RRCAT (SCR) to bid a warm farewell to Shri Das.



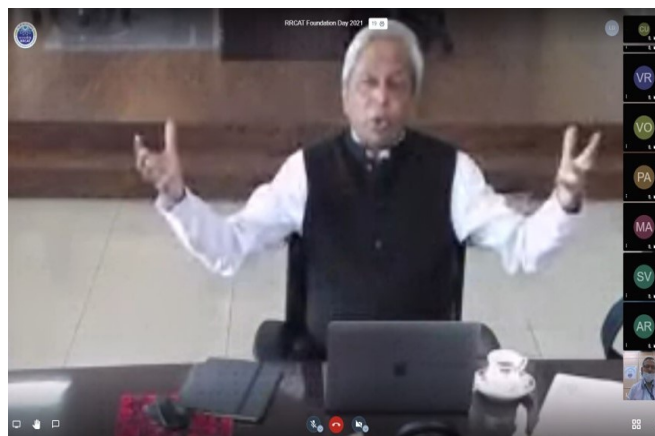
*Charge handing over ceremony: Shri Debashis Das (left) handing over charge to Shri Shankar V. Nakhe (right) on May 31, 2021.*

Shri Shankar V. Nakhe joined the Department of Atomic Energy in the year 1987 after graduating from 30<sup>th</sup> Batch of BARC Training School, Mumbai. He is an alumnus of Indian Institute of Science (IISc), Bangalore, where he did his Masters in Engineering Sciences. He is a highly accomplished technologist with several key contributions in the field of laser systems engineering and technology, and their successful deployment in several strategic programs of the Department of Atomic Energy. He played a key role in the development of the fiber Bragg grating inscription facility at RRCAT. This unique facility developed at RRCAT is being used for the development of specialized sensors for niche application areas of temperature and strain measurement. He took a leadership role in setting up of the Incubation Centre at RRCAT, and played a pivotal role in enabling the R & D output in certain niche areas of technology for use in commercially viable products for healthcare as well as other societal applications. Shri Nakhe is the current President of Indian Laser Association.

As Director, RRCAT, he will now be spearheading the activities of the Centre, and taking it to new heights.

### N.2: RRCAT Foundation Day celebration

The 38<sup>th</sup> Foundation Day of Raja Ramanna Centre for Advanced Technology (RRCAT), Indore was celebrated on February 19, 2021 in on-line mode using e-Meeting platform developed in the Centre. Prof. K. VijayRaghavan, Principal Scientific Adviser to the Government of India was the Chief Guest of the function. He graced the occasion through video conferencing.



*Prof. K. VijayRaghavan, Principal Scientific Adviser to the Government of India and the Chief Guest, delivering the Foundation Day address.*

Prof. VijayRaghavan, in his Foundation Day address, touched upon various facets on how science and technology would move in the post-2020 world. Before 2020, India's prospects in science and technology were essentially based on linear extrapolation of prior knowledge and experience. The pandemic has changed these ideas. Starting with a brief history of evolution of mankind, leading to the invention of tools, development of various technologies and the industrial revolution, he elucidated how the humans, who once struggled to survive are now stewards of the planets. He highlighted the importance of distributed small manufacturing centres and high tech industry all across the country in the time to come. He emphasized that the computer aided design and prototyping will have a significant importance in the distributed manufacturing and it will essentially be the intellectual property. He mentioned that we should look at our planet globally and strive to reduce greenhouse gases and their impact on environment, reduce the uncontrolled growth of big cities, and yet ensure the quality employment and improve the quality of life.

Prof. VijayRaghavan lauded the efforts made by the Department of Atomic Energy towards the generation of energy and mentioned that going together with the nuclear and clean & renewable energy will be the *mantra* in going ahead.

Shri Debashis Das, Director, RRCAT presided over the function. He presented highlights of activities and major accomplishments of the Centre during the last one year.

Shri Das, in his talk, mentioned that the post-lockdown performance of Indus accelerators, which are operating in round-the-clock mode, has been brought back to its level before the lockdown. Besides the researchers from all over the country, R&D units of pharmaceutical industries are also using the facility for drug characterization. Shri Das also informed about the progress made in the Agricultural Radiation Processing Facility and the developments in the proton linacs, material science, various lasers and their societal as well as scientific applications. He informed that an Incubation Centre has started functioning in RRCAT to take these technologies from lab to land.



*On-line streaming of the proceedings of Foundation Day celebrations in Central Complex.*

Many eminent personalities, former Directors, former senior colleagues and RRCAT employees joined the celebrations in online mode and through the live streaming at various locations in RRCAT. Prof. VijayRaghavan interacted online with the dignitaries and the audience. A short video highlighting Centre's strengths was also played in the function.

Dr. Anil Rawat, Director, Technology Development and Support Group introduced the Chief Guest to the audience. Shri S.V. Nakhe, Director, Laser Group and Materials Science Group proposed a vote of thanks. Shri Rakesh Kaul, Associate Director, Materials Science Group coordinated various activities in organizing this function.

The function was organized following the COVID-19 related guidelines, including wearing of masks, maintaining social distancing in seating arrangement, etc.

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### **N.3: National Science Day celebration**

National Science Day (NSD) is celebrated in India each year on 28<sup>th</sup> February to commemorate the discovery of the Raman Effect by Prof. C. V. Raman, who was awarded Nobel Prize in physics in the year 1930 and Bharat Ratna in 1954. Each year RRCAT celebrates the NSD by holding an Open House for the school and college students, teachers, family members and guests of RRCAT staff members, and invitees from the public. However, this year due to the prevailing COVID-19 pandemic situation, RRCAT celebrated NSD in a completely online mode under the theme “Future of Science, Technology and Innovation (STI): Impact on Education, Skills and Work”.



*Glimpse of online program abiding the COVID-19 social distancing guidelines.*

More than 650 students and teachers of 27 schools and 9 colleges from Indore and from distant as well as nearby cities like Mallapuram (Kerala), Pilani (Rajasthan), Burhanpur, Ujjain, Barwani, Mhow joined the online virtual celebration with immense enthusiasm and vigour. To begin with the celebration, Shri Purushottam Shrivastava, Chairman, Public Outreach Committee and National Science Day (NSD-2021) Organizing Committee welcomed the participants. In his welcome address, delivered in Hindi language, he informed the audience about the theme of this year's NSD and brought awareness to the students about the Science, Technology and Innovation Program 2020 (STIP 2020) and how students can contribute towards the formation of STIP. Shri Debashis Das, Director, RRCAT addressed the participants in Hindi language and informed that the NSD is celebrated to commemorate the path-breaking discovery of Raman Effect. He brought out several inspirational aspects of Prof. Raman's personality and life-style besides his scientific contributions. He gave an overview of Laser and Accelerator activities pursued at RRCAT, and explained several applications. Short movies depicting importance of hygiene and cleanliness were also shown under the “Swachh Bharat Abhiyan”.

The participants of NSD-2021 were given an online tour of various laboratories and scientific activities of RRCAT through video clips of about 90 minutes on Synchrotron Radiation Sources (SRS) Indus-1 and Indus-2, Accelerator Radiation Processing Facility (ARPF), Infra-red Free Electron Laser (IRFEL), Raman effect, Raman Probe, Neel Bhasmi,