



NSD 2025 Inaugural Day (From left to right): Dr. R.N. Singh, Chairman, NSD-2025 in BARC, Dr. Raghvendra Tewari, Director, Materials Group, Shri Vivek Bhasin, Director, BARC, Shri S.A. Bhardwaj, Former Chairman of AERB and Program Chief Guest, Dr. Ajit Kumar Mohanty, Chairman AEC & Secretary, DAE and Dr. Sanjib Majumdar, Convenor of NSD-2025 in BARC unveil the Souvenir on the theme Transition to Clean, Green Viksit Bharat: Advanced Materials & Nuclear Technology.

Catalyzing Curiosity: BARC's National Science Day and the Path to Viksit Bharat

The Bhabha Atomic Research Centre (BARC) hosted a three-day National Science Day celebration from February 28 to March 2, 2025, with the theme "Transition to Clean, Green Viksit Bharat: Advanced Materials & Nuclear Technology." The event drew approximately 300 students and their teachers each day from schools across Mumbai and Maharashtra, offering them a unique opportunity to explore India's nuclear science landscape and understand the role of advanced materials and nuclear energy in building a developed India (Viksit Bharat).

Inaugural Session

The opening day set the tone for the celebration with distinguished speakers highlighting the importance of nuclear science and technology in India's sustainable development journey.

Shri S. A. Bhardwaj, Chief Guest and Former Chairman, AERB, emphasized the 'Reduce, Recycle, and Reuse' philosophy central to India's nuclear energy ecosystem. Dr. Ajit Kumar Mohanty, Chairman, AEC & Secretary, DAE, discussed the exploration of light's fundamental properties to uncover both past and future scientific phenomena. In his speech, Shri Vivek Bhasin, Director, BARC, while honoring the legacies of Prof. C.V. Raman and Dr. Homi J. Bhabha, highlighted materials development crucial for advancing India's nuclear program. Dr. Raghvendra Tewari, Director, Materials Group, focused on innovative applications of the Raman Effect in healthcare.

Student Activities

Students participated in science exhibitions and enjoyed guided tours of BARC's prominent facilities, giving them firsthand exposure to cutting-edge research and technologies in nuclear science.

Exploring Materials Science

The second day focused on deepening students' understanding of materials science and its applications. Dr. Gautam Kumar Dey, Former Director, Materials Group, delivered a talk on "The World of Materials" followed by an engaging Q&A session with students.

Interactive Innovation

A new format was introduced where students submitted queries on general science and nuclear energy topics. Select questions were addressed by BARC's young and experienced scientists and researchers, creating a more interactive and responsive learning environment.

Concluding Session

The final day continued the educational momentum with more expert presentations. Dr. R. Tewari, Director, Materials Group, presented "The Story of Mean and Materials," further exploring the crucial role of materials science in nuclear technology. The question-and-answer format initiated on Day 2 continued, allowing more student queries to be addressed by BARC scientists.

Facility Tours and Exhibitions

Throughout the three days, students had the opportunity to visit several state-of-the-art research facilities at BARC: Dhruva Research Reactor, Nuclear Waste Management Facility, Robotics & Remote Handling Facility and Nuclear Agriculture, Food and Biotechnology Facilities.

Educational Activities

The program featured multiple interactive elements designed to engage students: Souvenir with tailor-made information on

historical journey and the growth of research and development activities in materials, Scientific quizzes, Exhibitions on materials science highlighting its role in India's nuclear energy expansion, Audio-visual screenings about eminent Indian scientists and pioneers in nuclear materials science, Demonstrations of advanced nuclear materials manufacturing technologies, Working models showcasing latest innovations in the field.

Program Leadership

The National Science Day 2025 celebration was spearheaded by the Materials Group of BARC, under the distinguished leadership of Dr. R.N. Singh, Outstanding Scientist, who served as Chairman of the NSD-2025 Program, and Dr. Sanjib Majumdar, Scientific Officer/H, who acted as the Program Convenor. The event's success was further enhanced through valuable collaborative efforts from the Nuclear Fuels Group and the Scientific Information Resource Division of KMG, whose contributions were instrumental in orchestrating this comprehensive educational program.

Significance of the Event

The celebration served multiple important purposes, which include

- Honoring Sir C.V. Raman's discovery of the Raman Effect, which earned him the Nobel Prize in Physics in 1930
- Highlighting the significance of nuclear energy in India's transformation towards becoming self-reliant (Aatmanirbhar Bharat)
- Demonstrating how nuclear energy contributes to a clean, green, and sustainable future
- Emphasizing the role of advanced materials in successfully harnessing nuclear energy
- Inspiring the next generation of scientists and innovators who will drive India's scientific progress
- Fostering critical thinking and creativity among young minds

This immersive three-day program successfully combined theoretical knowledge with practical experiences, giving students a comprehensive understanding of nuclear science and advanced materials while inspiring them to pursue scientific inquiry and innovation.

