N.2: National Science Day celebration

National Science Day is celebrated in India on 28th February of each year to commemorate the discovery of the Raman Effect by Prof. C. V. Raman. Every year, RRCAT celebrates the National Science Day on the last Saturday and Sunday of February by holding an Open House for the school and college students, teachers, family members of RRCAT staff and invitees from the public. Coordination Committee for National Science Day (NSD-2018) celebrations at RRCAT had made elaborate arrangements with the help of an enthusiastic team of volunteers, exhibitors, administrative staff and security personnel.

On Saturday, February 24, 2018, students of Class XI (accompanied by teachers) from schools in and around Indore, were invited for a full day visit. On the next day, family members/ guests of RRCAT staff, college students and invitees were given opportunity to visit RRCAT laboratories. On the first day, about 1425 students and teachers of 105 schools visited RRCAT. Dr. P. A. Naik, Director, RRCAT explained to them the Raman Effect, the basic principles of working of accelerators and lasers, and also the scientific and technological aspects of some of the exhibits arranged in various laboratories. His lucid explanation was very much appreciated by the students and the teachers. Deaf and mute students from a few schools also participated in the celebrations. Dr. (Ms.) Rama Chari, Associate Director, Materials Science Group delivered a separate interactive talk to these specially-abled students, with the help of accompanying interpreter-teachers.

Students experiencing an interesting demonstration with liquid nitrogen during celebrations of NSD-2018.

After the Director's address, all the students were taken to different exhibits at laboratories and at RRCAT Convention Centre, in organized groups, under the guidance of RRCAT volunteers. About 40 scientific exhibits were set up at newly built RRCAT Convention Centre and in different laboratories. There were exhibits related to technologies of accelerators, lasers, cryogenics, superconductivity, magnets, along with demonstration related to fire and safety. There were working exhibits for demonstrations of applications of lasers like: laser cutting, laser marking, laser additive manufacturing, use of light and lasers for biomedical applications etc. To explain some basic science concepts, special experiments had been set up like Raman effect, Michelson interferometer, glow discharge, laws of motion, gas laws, conservation of momentum, change in physical properties of materials at low temperature, etc. To explain some technology applications, live demonstration with models of superconducting magnetic levitated trains/ vehicles, hyperloop train, water-jet cutting, induction heating, glass blowing etc. were arranged. Videos on Indus synchrotrons, development of SCRF cavities, 10 MeV linear accelerator, laser additive manufacturing, laser cutting, optical diagnosis of cancer etc. were shown.

Students taking a ride on magnetic levitated vehicle.

"RRCAT Science & Technology Pavilion" was specially set up to showcase recent important scientific achievements and in-house technology developments carried out at RRCAT. An "Ask-a-Question Desk" was set up for the students with aim to create an opportunity for free discussion between these young minds, teachers and the working scientists. Caps were distributed to all the students and teachers, to protect them from sun during the visit, in addition to the participation prizes to the curious students. The specially-abled students also visited various laboratories and took part in "Ask-a-Question" activity with great enthusiasm. Snacks and lunch were served to all the students and teachers. Buses were arranged for movement of students and teachers from one exhibit place to another.

On the next day, more than 2500 persons including family members of RRCAT staff, college students, and invitees from public visited the laboratories and exhibits, and expressed their happiness on getting an opportunity to learn about the important R&D activities being carried out at the Centre.

Reported by:
Rajesh Arya (rajarya@rrcat.gov.in)