

N.4: 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 and guests of RRCAT staff members and invitees from the public. Coordination Committee for National Science Day (NSD-2019) celebrations at RRCAT had made quite elaborate arrangements with help of an enthusiastic team of volunteers, exhibitors, administrative staff, and security personnel.

On Saturday, February 23, 2019, students of Class XI accompanied by teachers from schools in and around Indore, were invited for a full day visit. About 1150 students and teachers of 80 schools visited RRCAT. In his talk, Dr. P. A. Naik, Director, RRCAT explained 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. Deaf and mute students from few schools participated in the celebrations. Dr. Vinit Kumar, Head, Accelerator & Beam Physics Section delivered a separate interactive talk to these specially-abled students, with the help of accompanying interpreter-teachers.



Exhibits in RRCAT laboratories being explained to the students.

All the students were taken in organized groups to different exhibits at laboratories and at RRCAT Convention Centre, under guidance of RRCAT volunteers. There were about 40 exhibits related to technologies of accelerators, lasers, cryogenics, superconductivity, magnets, along with demonstration of Fire & 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 etc. To explain some technology applications, live demonstration with models of superconducting magnetic levitated vehicles, water-jet cutting, induction heating, glass blowing etc. were arranged. Videos on Indus synchrotrons, development of SCRF cavities, indigenous 10 MeV linear accelerator, laser additive manufacturing, laser cutting, optical diagnosis of cancer etc. were shown.



In-house developed technologies showcased in “Make in India Gallery”.

“Make in India Gallery” was specially set up to showcase recent important scientific achievements and in-house technology developments carried out at RRCAT. There were 20 exhibits including instruments like *TuBerculoScope*, Raman Probe *OncoDiagnoScope* and development of technologies related with *reefer*, laser welding machine etc. which greatly enthused the young visitors. An “Ask-a-Question Desk” was set up for the students to provide an opportunity for free discussion between these young minds, teachers and the working scientists. Participation prizes of “NSD-2019 Souvenirs” were distributed to curious students in addition to caps and pens to all the students and teachers. The souvenir was a laser cut SS disc with laser engraved images of the “Voyager Golden Disc Record” on one side and relative size of the planets of our solar system on the other side. Specially-abled students also took part enjoyably 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 Sunday, February 24, 2019, more than 2500 persons including family members and guests of RRCAT staff, college students, and invitees from public visited the laboratories and exhibits. They expressed happiness on getting an opportunity to learn about the important R&D activities being carried out at the Centre.

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