

technical note for release on the same, (vi) evaluation of shield adequacy of TL-2/TL-3 in Indus-1, (vii) Monte-Carlo simulation for the angular distribution of bremsstrahlung photons from 20 MeV, 450 MeV, 550 MeV and 2.5 GeV electrons bombarded on metallic targets, (viii) ozone measurements in SR beam lines, and, (xi) area dose mapping in Indus complex using TLD on HDPE phantom.

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N.7: Fire safety in RRCAT

Every year first-aid firefighting training to RRCAT employees, stipendiary trainees, TASAR apprentice, CISF staff members, and also for contract workers. This training is provided to develop skill for preliminary fire fighting and extinguishing of fire at initial stage itself. During the period July 2019 to June 2020, this training was imparted to 370 personnel which include 162 RRCAT staff members, 36 stipendiary trainees and 49 TASAR apprentice. Regular fire mock drills are conducted to develop alertness in firefighting staff. Eight fire mock drills were conducted during July 2019 to June 2020 at various locations in RRCAT. Fire safety contingency plan was prepared and vetted by DSP, Indore. Hindi translation of the same is being done.



Firefighting training to RRCAT employees (top) and TASAR apprentices (bottom).

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N.8: Clean and Green Campus activities in RRCAT

The Centre is continuously working to improve the cleanliness and increase the greenery in the campus by taking several initiatives with whole hearted participation of officials, in-campus school students, teachers and colony residents. This report describes recent activities in this direction.

Facility for producing compost using bacteria: In addition to vermicomposting technique, composting using microbial consortium i.e. bacteria culture (Bacillus, Halo Bacillus, Staphylococcus) is undertaken to process garden wastes. This facility is started with an expected capacity of ~ 25 MT/year of compost.



Compost producing facility using bacteria.

Plantation campaigns: Four plantation campaigns were carried out, during July-August in which colony residents, students and teachers of AECS, OCAL and HBNI, along with CISF staff actively participated. In these campaigns, around 1300 plants were planted, which included about 20 prominent local species, like Arjun, Bargad, Baheda, Jamun etc. The plantations done in previous years were maintained by watering with innovative approach of drip irrigation technique using energy efficient solar pumping system, especially useful in water scarcity conditions of peak summer.



Recent plantation campaigns (left) and nurtured plants of the previous plantation drives (right).



Receiving Neem samplings from colony residents.

A program was undertaken for awareness amongst school children and colony residents for raising of Neem saplings. Necessary guidance and materials (seeds, bags and manure) were provided for the purpose. This initiative got overwhelming response with nearly 700 saplings collected

from residents in September 2019. These saplings will be nurtured further in the nursery and used for future tree plantation drives.

Celebration of 'Swachhta Hi Seva' fortnight: RRCAT celebrated 'Swachhta Hi Seva' fortnight during 11th Sept. to 2nd Oct. 2019 on the occasion of 150th birth anniversary of Mahatma Gandhi. Various initiatives and programs were taken up during this period. All the Divisions/Sections of RRCAT conducted cleanliness drive in and around their buildings. A poster painting competition was held on 12th Oct. 2019 in AECS, Indore on the theme 'Beating the Plastic Pollution', in which more than 100 students participated. A rally cum door-to-door awareness campaign was organized in the colony by AECS students on the theme 'Say No to Single Use Plastic'. Handmade paper/cloth carry bags were distributed to shopkeepers in the nearby market and residents of colony. A street-play on cleanliness was organized in coordination with Indore Municipal Corporation on 29th Sept. 2019. Installation of dustbins with proper stickers to segregate plastic and other types of waste at various locations in the technical area was completed. Cleaning of Sukhniwas Lake was undertaken during *Swachhata Pakhwada*. Cleaning of water body, by removing aquatic weeds, plastics and waste material floating to maintain aesthetic beauty and prevent eutrophication, has been a regular practice.



Cleanliness campaign in technical area (left) and rally by AECS students (right).



Poster competition at AECS (left) and the street play in RRCAT about cleanliness (right).



Removal of aquatic weed from Sukhniwas Lake.

The above reported activities received necessary guidance and support from Director, RRCAT.

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N.9: Organization of ISO-ISMPO Conference 2019

The biennial joint conference of Indian Society of Oncology (ISO) and Indian Society of Medical & Pediatric Oncology (ISMPO), "ISO-ISMPO 2019 Conference" was held at RRCAT and Sayaji Hotel, Indore during November 1 - 3, 2019, under the aegis of the Cancer Society of MP and Indian Laser Association (ILA). The conference was hosted by Raja Ramanna Centre for Advanced Technology (RRCAT), Indore and partially funded by Board of Research in Nuclear Sciences, Department of Atomic Energy. The scientific and technical sessions of the conference were managed by two scientific committees, Medical Oncology and Basic & Applied Oncology whose chairpersons were Dr. T. P. Sahoo, a renowned Oncologist and Dr. S. K. Majumder, Head, Laser Biomedical Applications Division, RRCAT, respectively. The scientific session on "Basic & Applied Oncology" comprised a Keynote Address followed by invited talks by eminent researchers from the various centers of excellence across India and also poster presentations of the contributed papers. A special attraction of the conference was the formal launching and dedication of the Oncodiagnoscope (the photonics based cancer screening device), developed at RRCAT, to the oncologists of the country by Shri Debashis Das, Director, RRCAT in presence of Shri Shatrughan Sinha, Hon'ble former Union Cabinet Minister of Health and Family Welfare and Shipping during the Inaugural Ceremony of the conference on November 1, 2019 at the RRCAT Convention Centre.



Dedication of OncoDiagnoScope.

The conference was preceded by a "Pre-Conference Workshop/Meeting" conducted by Shaskiya Gyara Panch Trust Cancer Hospital (Govt. Cancer Hospital), Indore on October 31, 2019. The scientific program of ISO-ISMPO was held during Nov 1 - 3, 2019 and the scientific program of Cancer Care India (Federation of NGOs working in the field of supportive and community oncology) was held in parallel with other scientific session during November 3 - 4, 2019.

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