

Monthly Descriptive Report of programmes and activities organized at Nehru Science Centre, Mumbai and its Satellite Units for the month of July, 2023

NEHRU SCIENCE CENTRE, MUMBAI

Sci-Birthday

On 07.07.2023 the Centre organized Sci-Birthday for a group of 30. The participants were taken around in the galleries, enjoyed 3D show, SOS show and Motion simulator ride. A session on hands-on activity was also organized with demonstration on Liquid Nitrogen. The same series of event will be repeated on 29.07.2023 for another Sci-Birthday event for a group of 30 people.

Teachers' Training Programme

The Centre organized a five-day teachers' training program which ended on 01.07.2023. The program focused on providing hands-on experience in utilizing educational kits for interactive teaching. Topics covered included Value of Pi (π), the area of a circle, the Pythagorean Theorem, brain model, Archimedes principle, and Foldscope. Participants also explored the Centre's facilities to enrich their understanding of science. The program aimed to equip educators with innovative teaching methodologies to inspire young minds in science education. 58 trainee teachers from Gokhale Education Society's Education College were part of this Training Programme.

Meet the Innovator

The Centre hosted a talk by the famous inventor and innovator Dr. Sanjeev Patwardhan on 01.07.2023. In the field of photomicrography, Dr Patwardhan's skill in developing novel technologies has had a considerable influence. His ground-breaking apparatus enables the taking of high-quality photographs with microscopes and telescopes, giving us sharp, enlarged images that are almost not visible to naked eye. Dr. Patwardhan demonstrated an interesting view of a plant cell during the talk, exhibiting delicate intricacies that are sometimes invisible to the unaided eye. As our Innovation Hub students got the chance to meet and converse with this brilliant inventor, it was a genuinely inspirational session. The talk was attended by 58 B.Ed. and 30 Innovation hub member students

World Population Day Events

The Centre organized a series of engaging events on World Population Day, celebrated on 11.07.2023. These events aimed to raise awareness and promote knowledge about population-related issues. The following activities were organized as part of the commemoration:

- **Online Quiz Contest:**
An exciting Online Quiz Contest was conducted, inviting participants of all ages to test their knowledge on various population-related topics. A total of 484 enthusiastic individuals registered and actively participated in this quiz, showcasing their expertise in the subject matter.
- **Open House Quiz Contest:**
As a part of the celebration, an engaging Open House Quiz Contest was arranged specifically for the Centre's visitors. Participants were challenged with a series of questions related to population dynamics and its impact on society. 45 visitors were part of this quiz.

Celebration of the International Moon Day

On 20.07.2023 and 21.07.2023, the Centre hosted a 02-day event in the honor of International Moon Day. The major goals of the celebration were to honor the importance of lunar exploration and to educate students & visitors about space science. Several events took place throughout the celebration:

- **Online lecture by Smt. Megala S.:**
The event's high point was an insightful online lecture by renowned ISRO Scientist Smt. Megala S. The different facets of lunar exploration, space missions, and their significance were the main topics of her speech. A larger audience was able to view the talk since it was aired live on the Center's Facebook page. The lecture has had 1638 watchers till 28.7.2023.
- **Online and Offline Quiz Competition:**
A quiz competition was organized to spark students' interest in space science. To maximize participation, the quiz was made available in both online and offline formats for students in grades 6 and above. A total of 76 participants took part in the online quiz, while 112 pupils participated in the offline quiz. The interactive exercise aimed to encourage students to learn more about moon exploration and space missions.
- **Film Show followed by Open House Quiz:**
An engaging film show related to the Moon, space missions, and astronauts was screened for the registered students. The content presented in the film inspired the audience. An interactive open house quiz followed by the film show, providing students the opportunity to ask questions and discuss the topics explored, leading to deeper curiosity and valuable insights gained. A total of 523 students were part of this celebration.

The programme concluded on the same day with the awarding prizes to the contest winners.

Science Ke Funday

The Centre organized Science Ke Funday event on 23.07.2023. The event attracted 16 families (64 persons) to promote family engagement in science-related activities, creating a sense of wonder and enthusiasm for science. The event featured interactive exhibits, hands-on experiments, demonstrations, and all shows at the Centre, aiming to engage participants in educational and entertaining activities. These events aimed to bond families while exploring the fascinating world of science.

Game Design Workshop (Level 01)

The Centre is conducting a five-day workshop (22.07.2023, 29.07.2023, 05.08.2023, 12.08.2023 & 19.08.2023), in this workshop the participants will be provided with comprehensive training in various design and 3D modelling topics. The first day focused on graphic design principles, while the second day focused on digital poster design and user-friendly mobile screens. The third day will focus on 3D modelling, teaching visualization for architecture and video games. The final day will involve creating 3D models using Blender. The workshop will effectively impart essential knowledge and skills, enabling participants to excel in video game animation and design. 15 students are part of this ongoing workshop.

Game Design Workshop (Level 02)

The Centre organized level 2 workshop on development of Game design for the students who have already completed the first level. The first session of the workshop was conducted on 14.07.2023. In all 08 participants have registered for the workshop

Mobile Science Exhibition: Health and Hygiene

The Centre organized a Mobile Science Exhibition (MSE) 'Health and Hygiene' in the govt. schools of Pune district. Apart from the exhibition, Science Demonstration Lecture (SDL) & film shows were also organized during the month. The bus began its journey on 12.07.2023 and has covered 08 sites till now.

Mobile Science Exhibition: Curriculum Based

The Centre organized a Mobile Science Exhibition (MSE) 'Curriculum Based' in the govt. schools of Pimpri Chinchwad district. Apart from the exhibition, Science Demonstration Lecture (SDL), Rotocopter Workshops & film shows were also organized during the month. The bus began its journey on 14.07.2023 and has covered 07 sites till now.

Online Chandrayan-3 lunar mission Session

The Centre organized live session to celebrate the launch of the Chandrayan-3 lunar mission, educating the public about space research and India's ambitious space programs. The event marked a milestone in India's space exploration journey, raising awareness of space science. Speakers provided insights on the mission's objectives, challenges, and importance, while interactive Q&A sessions engaged experts. The online format facilitated wide participation, with 945 participants participating from various locations.

Experimental Skill Test on 23.07.2023

The Centre, in collaboration with the Bombay Association for Science Education (BASE), coordinated a session of the Experiment Skill Test at the Centre on 22.07.2023. This program was designed for 20 participants registered from grades 8 through 12. During the test, the students were provided with experimental setups and were expected to conduct experiments under the supervision of experts from the Centre and BASE. The primary objective of this initiative was to evaluate the participants' ability to perform experiments and demonstrate their keen observational skills.

Workshop for Teachers on Development of Experimental Skills

The Centre, in collaboration with BASE, will organize a Workshop for Teachers on Development of Experimental Skills. The workshop aims to enhance teachers' skills in conducting experimental tests and demonstrations, providing innovative teaching methodologies and hands-on experimentation ideas. The primary goal is to improve science education quality, inspire future scientists, and foster a passion for science among students. This workshop will empower dedicated teachers to contribute to the advancement of science education in the region. The workshop will be conducted on 29.07.2023 and 20 participants will be part of this workshop.

Sci-Mail

Sci-Mail for the month of July – September, 2023, the quarterly membership newsletter was published, shared and uploaded on Social Media handles of the Centre. The post has reached to 2,395 people till 28.7.2023.

RAMAN SCIENCE CENTRE, NAGPUR

World Population Day

To raise awareness about global population issues among children, the World Population Day was observed at Raman Science Centre Nagpur on 11.07.2023. An online quiz on population related issues and on this year's theme, 'Unleashing the power of gender equality' was organised on 11.07.2023. 70 students from across the country participated in the quiz.

Moon Landing Day

To commemorate the first human landing on moon on 20.07.1969, Raman Science Centre Nagpur has organised a Popular Science Lecture on 20.07.2023. The lecture was delivered by Shri Rajendra, Muneshwar, Co-founder & CTO, Vihaan Spacotech, Nagpur on theme 'Moon, the Moon exploration Missions, and India's relevance with Chandrayaan 3'. 155 students, teachers, and parents from various schools attended the lecture. Special Science on Sphere shows on the Moon' were conducted for 155 students and teachers during which features of moon, like invisible portion from the earth, tranquility base a site of landing of Apollo 11 and landing of first human etc were explained.

Science Demonstration Lecture and Science Film Festival programme

Special Science Demonstration Lecture and Science Film Festival programme is organised for the school groups visiting Science Centre from 24.07.2023 onwards. Science Demonstration lectures on topics, 'Colourful Chemistry', 'Fun with Physics' and 'Matter at Low Temperature' were conducted along with screening of syllabus based selected science films. 475 students from 4 schools participated in the program. In all 5 SDL and 10 film shows were arranged for these students. (DATA TILL 27 July 2023)

Experimental Skill Test (2nd Programme)

The Centre in association with Bombay Association for Science Education (BASE), Mumbai has organised 'Test your Experimental Skills' programme on 23.07.2023 with a purpose to provide a platform for students to show experimental skills. The Participating students were assigned two science experiments (without choice). These experiments were on any topic of science (not discriminating between Physics, Chemistry & Biology). 6 observers (Professors/Teachers) from Colleges and Schools) were present for assessment. The criteria was to observe the experimental skills of the students on how they take readings, do measurements, plot graphs, do calculations, data presentation etc. A special orientation session was conducted to encourage these students to enhance their experimental skills. In the concluding session students were individually guided by the Observers/Examiners about the experiment conducted by them. In all 16 students participated in the programme.

Mobile Science Exhibition

Two Mobile Science Exhibition units were flagged off to the schools of Yawatmal & Wardha District on 18.07.2023. The unit comprises a science exhibition mounted on wheels with the theme. 'Curriculum-based science' & 'Hygiene and sanitation'. Science Film Shows and a Science Demonstration Lecture were conducted during the programmes. The exhibition was organised on 8 sites for 16 days. 3565 + 2175 visitors attended the exhibition and 5 film shows and 9 SDL's were conducted.

REGIONAL SCIENCE CENTRE BHOPAL

Innovation Hub Programmes

Innovation Hub of RSC, Bhopal organized 12 Orientation Sessions on topics such as Power of Math in Lego Robotics, Study of Air Pollutants, Getting Started with Python, Exploring the Moon, Chloride Test in Water, Robotics-I & II, effect of Smoking on Lungs, Space Origami, Microscopic Drawing, Adulteration in Pulses, Making Topographic Maps, etc. A total of 55 students participated in these programs. Apart from this, a special Classroom activity comprising 2 sessions on the topic 'Our Solar System' was also organized wherein 8 students participated. A Kabad-Se-Jugad session was also organized where 7 participants participated. In addition to this, 4 more sessions are planned to be conducted on upcoming Saturday (29.07.23) and Sunday (30.07.23).

Celebration of the launch of Chandrayaan - 3

As a prelude to the launch of Chandrayaan-3 by ISRO, RSC, Bhopal organized a series of events on 13.07.2023 to celebrate this landmark occasion. As a part of the celebration, a scale down model of Chandrayaan - 3 & an Infographics Display were inaugurated by Mrs. Anubha Srivastava, Commissioner, Directorate of Public Instruction (DPI), School Education Dept., Govt. of MP, Bhopal. At the outset, Shri Saket Singh Kaurav, PC RSC, Bhopal conducted an Interactive session in which he presented a brief account of India's Space programme that had a humble beginning with the firing of sounding rockets from Thumba in the Nineteen sixties with the rocket hardwares transported by bicycles and a journey which is going to be supplemented by a flawless touchdown on the lunar surface through the upcoming Chandrayaan-3 mission. A total of 100 school children from different local schools participated in this session and interacted with the Speaker. This was followed by an Audio-visual Quiz titled 'Chandrayaan Programme: India's Moon Odyssey' in which around 80 students took part. Prizes and certificates were given away to the successful participants of the quiz on the completion of the programme.

Celebration of International Moon Day

Regional Science Centre, Bhopal celebrated International Moon Day on 20.07.2023 in its premises by organizing a Quiz on the topic "Mysteries and Marvels of the Moon quiz" among school children and screening a documentary film provided by ISRO on the topic 'History of India's Space Programme: Past, Present and Future' for students and general public from 11.00 A.M. to 1.00 P.M. While the quiz tried to test the knowledge of children regarding various aspects of the Moon such as its origin, geology, geography and human explorations, the documentary, on the other hand, tried to chronicle India's space journey through ISRO under the guidance of

Dr Vikram Sarabhai that transformed a space-dependent nation like India to a leading space-faring nation of the world. Prizes and certificates were given away to all the successful participants of the Quiz on the completion of the programme. A series of demonstrations with a scaled-down model of the Chandrayaan-3 spacecraft developed by this Centre was also organised to mark the occasion. A total of 111 students, teachers, and members of the general public participated in all these programs.

GOA SCIENCE CENTRE & PLANETARIUM, PANAJI

4th Anniversary of Innovation Hub

The Centre celebrated the 4th Anniversary of innovation hub by organizing an interactive session on 01.07.2023 for the members of Innovation Hub. Shri T. Anil Gangadharan, retired flight engineer from Indian Navy interacted with the members on the topics like steps to innovation, aerodynamics of airplanes and drones for future and role of science in cooking. In total around 109 students and their parents attended the program.

World Population Day celebration

The Centre in collaboration with State Family Welfare Bureau, Directorate of Health Services, Govt. of Goa celebrated the World Population Day by organizing the following programs:

- **Essay Writing Competition**

A state level essay writing competition was organized for the higher secondary school students on 08.07.2023. The topic for the essay writing competition was sustainable growth for sustainable future. In total 115 students participated.

- **Elocution competition**

A state level Elocution competition was organized for the students of class VIIIth to Xth on 10.07.2023. The topic for the competition was effect of overpopulation on development and nature. In total 76 students participated.

- **Popular Science Lecture**

A popular science lecture on the topic world population day was delivered by Dr. Supriya Phadnis, Assistant Professor, Healthcare management, Goa Institute of Management on 14.07.2023. In total 154 students, teachers and staff from Directorate of Health Services, Govt. of Goa attended the function.

- **The Valediction and Prize Distribution**

The Valediction and Prize Distribution was held on 14.07.2023. Dr Rajendra Borkar, Medical Superintendent, South Goa District Hospital, Margao was the Chief Guest of the function and Dr Supriya Phadnis, Assistant Professor, Healthcare management, Goa Institute of Management was the Guest of honor of the function. Dr Uttam Desai, Chief Medical Officer, State Family Welfare Bureau, Directorate of Health Services and Shri Vilas Chaudhari, Project Co-ordinator of Goa Science Centre were the other dignitaries present on this occasion.

As a part of world population day State Family Welfare Bureau, Directorate of Health Services had organized a video making competition for the public on the topic family planning and top three award winning videos were screened during this function. The healthcare workers with outstanding performance in their service were also felicitated during this program. Winners of various competitions were awarded with prizes. In total 154 students, teachers and staff from Directorate of Health Services, Govt. of Goa attended the function.

An awareness program on prevention of diseases caused by Mosquitoes

An awareness program on prevention of diseases caused by Mosquitoes was conducted for the staff of Goa Science Centre by Mrs. Arpita Korgaonkar, NVBDP, Directorate of Health Services, Goa on 13.07.2023.

Moon landing Day celebration

The Centre organized a popular science lecture on the topic to the moon and back on 20.07.2023. The lecture was delivered by Shri Videsh Khandeparkar, Association of Friends of Astronomy, Goa. In total around 189 students and teachers were present.

Live screening of Chandrayan 3 launching.

The Centre made arrangement for the live screening of Chandrayan 3 launching for the staff and visitors on 14.07.2023. In total around 58 people witnessed the event.

Science demonstration lecture series

The Centre organized a Science Demonstration Lecture series from 24.07.2023 to 29.03.2023 for the high school, higher secondary and college students. The topics demonstrated during the series include air pressure & vacuum, fun with chemistry, science magic show, dry ice show, liquid nitrogen show & Exciting Chemical Reactions, In total 1197 students and teachers witnessed the demonstrations.

India International STREAMM festival & Expo 2024

The Centre will be demonstrating a liquid Nitrogen show during the India International STREAMM festival & Expo 2024 on 29.07.2023 at Kid's Nest, Kurtarkar Nagri, Ponda, Goa.

Mobile Science Exhibition

The Centre organized Mobile Science Exhibition in Sindhudurg District of Maharashtra wherein the bus visited 09 schools in the month of July. Apart from science exhibition various other programs such as science demonstration and science film show were organized in schools. Till date 2816 students, teachers and general public visited the exhibition.

Innovators Party

The Centre in collaboration with Myracle.io will be organizing a workshop on 30.07.2023 for the students. The workshop will offer hands-on learning in gamified way through games, competitions and prizes such as giveaways, creating an environment that fosters innovation.

DISTRICT SCIENCE CENTRE, DHARAMPUR

Workshop for Inspire Manak Award

On 14.07.2023, a training workshop on the INSPIRE-MANAK Awards Scheme was conducted in collaboration with DIET-Valsad. The workshop aimed to inspire teachers and promote innovative ideas for the development and fabrication of projects eligible for the INSPIRE-MANAK Award scheme. The Centre actively participated in the program, motivating teachers to nominate students for the award. A total of 45 teachers from both elementary and secondary schools participated in the workshop.

First Flight Test of RC Plane

The Innovation Hub of the Centre achieved a significant milestone on 18.07.2023, by successfully conducting the first flight test of an RC plane. The RC plane was a replica of the P15 Mustang and was designed and built by student members of the Innovation Hub, namely Chinmay Patel, Pushpendra Shah, and Krishna Singh, under Rahul Shah's mentorship. The flight lasted approximately 1 minute and 20 seconds, signifying a successful milestone for the team.

Seminar for Arduino at Govt. Engineering College, Valsad

On 24.07.2023, R. V. Shah, Junior Mentor of the Innovation Hub, at the Centre delivered a comprehensive lecture on "Development Board - Arduino" at the Govt. Engineering College, Valsad. The seminar attracted the participation of 114 students. During the lecture, the students were introduced to the functions, applications, and uses of Arduino. Additionally, they were educated about the importance of undertaking projects in the field of engineering, gaining interdisciplinary knowledge, and preparing themselves for future technologies. The students were also encouraged to join the Innovation Hub, where they could nurture their ideas and personal development.

World Tiger Day

To observe World Tiger Day on 30.07.2023, the Centre collaborated with The Lady Wilson Museum, Dharampur. On this occasion, the Centre planned to deliver a lecture titled "Save the Tigers for Our Ecosystem" at The Lady Wilson Museum. The event aimed to raise awareness about the importance of conserving tigers for the well-being of our ecosystem.

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