

## 1. INTRODUCTION

### GOA SCIENCE CENTRE, PANAJI

FACILITIES: 3-D Science Shows, Planetarium Shows, Science Demonstration Lectures, Science Shows for general public, Popular Science Lectures, Sky Observation, Creative Science Workshop, Science Film Shows, Temporary Exhibitions, Teachers Training Programme, Community Training Programmes, Outreach Programmes & Exhibitions, Meet The Scientist, Science Fiesta, Commemorative and Collaborative Programmes.

The Centre organized various commemorative programs like World Environment Day, World Population Day, National Energy Conservation Day, Swachhta Pakhwada, World Tourism Day and so on by generating sponsorship in organizing various programs and competitions for students, teachers and general public.

The centre Inaugurated upgraded Digital Planetarium through the hands of Dr. Pramod Sawant, Honorable Chief Minister of Goa on 20.12.2023.

The Centre installed a Scale down Rocket Model LVM3- M4 which carried Chandrayaan 3 in Science park of the centre on 15.08.2023. The model was inaugurated by Brig Arvinder Singh Sawhney, Commandant, 2 signal Training Centre & Station Commander, Military Station Goa.

The Centre developed new exhibit Supplemented Reality in Fun Science Gallery and inaugurated by Dr. Pramod Sawant Honorable Chief Minister of Goa on 20.12.2023.

The Centre Installed FRP model of astronaut photo booth and inaugurated by Dr. Pramod Sawant, Honorable Chief Minister of Goa in the Fun Science gallery at the Centre on 20.12.2023.

The centre organized a grand festival of Science called Science Fiesta 2024 in the premises of GSC from 26<sup>th</sup> to 28<sup>th</sup> Feb. 2024. Various Popular Science Lectures, workshops, Live Science Demonstration, Star Gazing and competitions

were organized for the students, teachers and general public.

During the year total 108 Science Demonstration Lectures were arranged to impress upon the students and teachers so that lectures in classrooms can be made more exciting and enjoyable using exciting experiments. Also centre is facilitated with Science Demonstration Lab where in total 301 shows were conducted for the general public visiting the centre.

As a part of International year of Millets celebration a sample exhibition titled 'Millets for Health' was inaugurated by Dr. Parveen Kumar, Director, ICAR-Central Coastal Agricultural Research Institute, Goa at Goa Science Centre on 14.08.2023. The exhibition was open for the public upto January 2024 and in total around 56359 students, teachers and general public visited the exhibition. Also two workshops for teachers and two popular lectures for school students were organized to know the importance of millets in our daily diet.

The Centre participated in the 2<sup>nd</sup> Destination Goa 2023 Mega Exhibition on Atmanirbhar Bharat, Govt. Schemes and programs from 13-15.09.2023. A panel exhibition on Azadi ka Amrit Mahotsav was displayed on this occasion. Demonstration of table top exhibits, Liquid Nitrogen show and Air Pressure and Vacuum was also conducted for the visiting students, teachers and general public. Around 8369 students, teachers and general public visited.

During the year 131336 visitors including students and general public visited the centre which is 18% increases in visitors as compared to last year. Also during the year conducted 1873 Nos of 3D shows in which 53819 visitors and 2256 Nos. of Planetarium shows in which 71086 visitors.

The centre Conducted Mobile Science Exhibition in 48 schools of Goa & Maharashtra during the

year in which total 63809 students, teachers and general public benefited. Also 16 sky observation, 44 Science Demonstration lectures, and 51 film

shows were organized. Distance travelled during the program is 2349kms.

## 2. GENERAL INFORMATION

	<b>GOA SCIENCE CENTRE, PANAJI</b>
<b>Head of Museums / Centre &amp; Designation</b>	Shri Vilas D Chaudhari. Project Co-ordinator
<b>Full Address</b>	Marine Highway, Miramar, Panaji, Goa 403 001
<b>Gram</b>	--
<b>STD Code</b>	0832
<b>Phone No.</b>	2463426
<b>Fax Email</b>	2463426 gscgoa@gmail.com
<b>Hours of Opening</b>	9.30 AM to 6.00 PM
<b>Closed on</b>	Diwali & Holi
<b>Admission fee A.Science Centre</b>	
•General Public	
•Students	
•Tourists/Group of 15 or more	Rs.30/- Rs.10/-
•Members	
<b>B. Planetarium</b>	
•General Public	Rs.20/- Free
•Tourists/Group of 15 or more	Rs.40/- Rs.30/-
•Students	
<b>C. 3D Show</b>	
•General Public	Rs.15/-
•Tourists/Group of 15 or more	Rs.20/- Rs.15/-
•Students	
	Rs.10/-

	<b>GOA SCIENCE CENTRE, PANAJI</b>
Inaugurated on	19.12.2001
Total Floor area in Sq. M.	2475
Staff Strength:	
• Scientific & Technical	08
• Non-Technical	04

#### VISITORS TO MUSEUM/CENTRE

<b>Name of Museum/Centre</b>	<b>GSC Panaji</b>
No. of School Groups	631
No. of Students in group visits	39216
Visitors to special Programmes	32634
No. of General Visitors (excluding students in groups & visitors to special programmes)	59486
No. of visitors to Planetarium	53819
No of Outreach Visitors	116957
Total visitors to the Museum/Centre during the year	131336
Total visitors to the Museum/Centre during the year (including outreach visitors)	248293
Total visitors since inauguration up to the period of report	<b>2091332</b>

\*Comparative visitor statistics in **ANNEXURE-I**

### 3. EXISTING GALLERIES

Name of the Museum/Centre	Names of the Galleries/Facilities	Floor Area sq. m.	Date of Inauguration	Date of major Renovation	No. of Exhibits
GSC Panaji	Reception Hall / Fun Science	256	19.12.2001	----	30
	Science of Ocean	256	19.12.2001	13.12.2013	65
	Mirror Gallery	256	18.11.2016	----	37
	Digital Planetarium	145	12.05.2012	----	---
	Innovation Hub	348.50	01.07.2019	----	---

### 4. NEW GALLERIES/OTHER FACILITIES/MAJOR RENOVATIONS

NEHRU SCIENCE CENTRE, MUMBAI

REGIONAL SCIENCE CENTRE, CALICUT

GOA SCIENCE CENTRE, PANAJI

### 5. MOBILE SCIENCE EXHIBITION UNITS IN THE MUSEUM/CENTRE

Name of the Museum/Centre	Title of the unit	Unit developed at	No. of Exhibits	Year of Development	Date of Major Renovation
GSC Panaji	1. Popular Science*	VITM, Bangalore	24	1998	2005
	2. Water*	RSC, Calicut & GSCP	24	2002	2014
	3. Human Anatomy & General Science		20	2020	--

Not in working condition

## 6. SCIENCE PARK

Name of the Museum/Centre	Area of the Science Park	No. of Exhibits	Date of Inauguration of Park	Number of Exhibits added during the year, if any
GSC Panaji	2 Acres	56 (incl. children's park)	19.12.2001	03

## 7. EXHIBIT DEVELOPMENT

Name of the Museum/Centre	GSC Panaji
No. of gallery Exhibits	01
No. of Park Exhibits	02
No. of MSE Exhibits	--
No. of Exhibits for Temporary Exhibition	–
No. of new Kits / Aids developed	04
No. of duplicate Gallery exhibits	--
No. of duplicate Park exhibits	01
No. of duplicate Kits	--
No. of gallery exhibits renovated	--
No. of park exhibits renovated	--

List of Exhibits/Kits fabricated & renovated in **ANNEXURE- II**

## 8. MOBILE SCIENCE EXHIBITION PROGRAMMES

The Mobile Science Exhibition (MSE) is meant to take the knowledge of science & technology to the doorstep of common man, especially to students living in rural areas. The sites for holding such exhibitions are selected in consultation with Education Departments of respective States/UTs. In addition to holding of the exhibition, mounted on specially designed buses, science film shows, sky observation programmes, Taramandal shows, science demonstration lectures etc., are also arranged as special attractions for rural place.

Name of the Museum/Centre	Name of the Vehicle	Theme of Exhibits	No. of Exhibition days	Km. Travelled	No. of Exhibition sites	No. of Visitors
GSC Panaji	GA 07 F 7031	Human Anatomy & General Science	99	2349	48	63809

## 9. SCIENCE EDUCATION ACTIVITIES

### A. SCIENCE DEMONSTRATION LECTURES

Science Demonstration Lectures are arranged to impress upon the students and teachers that lectures in classrooms can be made more exciting and enjoyable using exciting experiments with the aid of low cost kits and demonstration equipment. This aspect of teaching acts as a supplement to formal science education in schools.

Name of the Museum/ Centre	Name of the Science Demonstration Lecture Unit	No. of Lectures held in Museum / Centre	No. of Students Attended the lecture	No. of Lectures held outside Museum/ Centre	No. of Students Attended the lecture
GSC Panaji	* Fun with chemistry * Dry Ice Show * Fun with physics * Liquid Nitrogen Show * Science vs Miracles * Exciting Chemical reactions	51	5163	57**	23516

\*\* includes SDL at MSE Site & outreach program

The Centre organized Science Demonstration Lecture series from 24.07.2023 to 29.07.2023 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.

### B. NATURE STUDY / ENVIRONMENT AWARENESS CAMPS

Nature study camps are regularly organised under environment awareness programmes.

Student members and other participants are taken in such camps to study particular ecosystem.

Name of the Museum/Centre	Venue of the Camp	Duration of Camp	No. of Students	No. of Teachers
GSC, Panaji	--	--	--	--

### C. SCIENCE FILM SHOWS

Science film show programme is a regular activity in all science centres and at mobile science exhibition sites. Films on important topics of science & technology are screened.

Name of the Museum/Centre	No. of film shows held	Total No. of visitors in the film shows
GSC Panaji	12*	1031
	51**	8414
	13***	861

- \* Film shows were organised in Exhibition halls.
- \*\* Film shows were organised under Mobile Science Exhibition programmes.
- \*\*\* Film shows were organised during science film festivals.

#### D. SCIENCE FILM FESTIVALS

Science centres under NCSM organise regular science film festivals for schools. Schools are given a wide choice of titles to select from the list.

The centre in collaboration with Goethe Institute, Max Muller Bhavan, New Delhi organized film festival for students from 01.12.2023 to 15.12.2023. According to the age group, science films on Science, Environment and climate change were screened for the students in the auditorium of the Centre. In total around 861 students and teachers witnessed the screening.

#### E. POPULAR SCIENCE LECTURES

Popular Science Lectures regularly organised by all Centres are intended to create awareness amongst school students, teachers and visitors about the latest developments in science and technology. The lectures are delivered by eminent scientists, technologists, doctors etc. on current scientific issues of topical interest.

Name of the Museum/Centre	No. of Popular lectures held	Audience
GSC Panaji	21	3232

(Please see ANNEXURE- III for details of lectures)

#### F. TARAMANDAL/PLANETARIUM SHOWS

A digital Planetarium screens daily 4 shows on specific timings. The Show run presently is Sunstruck. Each centre organized regular taramandal shows for teachers, students and general public.

Name of the Museum/Centre	No. of shows held	Audience
GSC Panaji (Planetarium)	1873	53819

#### G. SCIENCE QUIZ

Science Quiz Contest is a regular activity of every science centre. These contests, both written as well as oral, are organized on knock out basis for schools of the city, town or district of operation of the science centre. The objective is to instill a sense of competition and enhance interest and knowledge of students in science and technology. Questions are also asked on the exhibits of the centre to evaluate their understanding.

Name of the Museum/Centre	No. of quiz rounds held	No. of participants	Audience
GSC Panaji	18	1515	2968

#### H. SKY OBSERVATION

Sky observation programmes of the centre are held at least twice a week (weather permitting) after sunset & attract a large number of enthusiasts. The programme introduces them to the wonders of the

universe through a slide show followed by sky observation using a telescope. The participants are explained about the celestial objects, their locations and movements etc.

Name of the Museum/Centre	No. of programmes held	No. of participants
GSC Panaji	54	12906

### I. 3 D Fantasy Show

This state-of-the-art facility provides the visitors an out of the world immersive experience in which the near realistic visuals will appear to come out from the static screen right in front of their eyes. It screens films with definite messages for audiences.

Name of the Museum/Centre	No. of shows held	Audience
GSC Panaji	2256	71086

### J. SLIDE OR VIDEO SHOWS

Name of the Museum/Centre	No. of programmes held	No. of participants
GSC, Panaji	--	---

### K. INNOVATION HUB

Innovation Hub is a facility for students to work on their own projects - fabrication of innovative science kits/experiments. It is also a place to convert their innovative ideas to prototype models.

Name of the Museum/Centre	No. of members	No. of sessions	No. of participants	No. of Projects
GSC Panaji	Total members 132 Active Members 50	11	187	03
DSC Dharampur				

#### Details of year-round activities of the Innovation Hubs

- The activity on measurements organized at Innovation Hub of Centre on 01.04.2023. 10 members participated.
- The activity on Robotics organized at Innovation Hub of Centre on 02-09.04.2023. 28 members participated.
- Orientation session briefing Interdisciplinary approaches in life science to VP College, Baramati students organized at Innovation Hub of Centre on 11.04.2023. 45 students participated.
- The activity on Green House Effect depicting role of CO<sub>2</sub> on global warming was mimicked in a box organized at Innovation Hub of Centre on 16.04.2023. 13 members participated.



- The activity on Instrumentation- colourimeter where Principle and working of colourimeter were studied practically through sugar estimation by DNSA method organized at Innovation Hub of Centre on 23.07.2023. 12 members participated.
- Project work on Biofuel Specific gravity of ethanol using Pycnometer was studied at Innovation Hub of Centre on 09.08.2023.
- The activity on Separation methods of (miscible and immiscible) organized at Innovation Hub of Centre on 13.08.2023. 06 members participated.
- Brain storming activity on eco-friendly air conditioner project organized at Innovation Hub of Centre on 12.11.2023. 04 members participated.
- Workshop on Light and its properties organized at Innovation Hub of Centre on 07.01.2024. 32 members participated.
- Activity on differential staining of blood organized at Innovation Hub of Centre on 14.01.2024. 14 members participated.
- Activity on Least count determination organized at Innovation Hub of Centre on 24 .03.2024 & 31.03.2024. 12 members participated.

<b>10. CREATIVE ABILITY CENTRE</b>
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**A. SCIENCE FAIR/CAMP**

Name of the Museum/ Centre	Venue of the Fair/ Camp	Date/s	Level (Dist./ Zonal/ State)	No. of School Participated	No. of Students & Teachers	No. of Science Club participated	No. of Projects	No. of Visitors
GSC Panaji	GSCP	26.02.2024 to 28.02.2024	Science Fiesta	17	3658	--	--	8247

**Science Fiesta 2024**

The Centre celebrated the National Science Day by organizing a Grand Festival of Science called Science Fiesta 2024 from 26.02.2024 to 28.02.2024. The Science Fiesta was inaugurated by Shri Levinson J Martins, Director, Department of Science, Technology & Waste Management, Govt. of Goa and Shri Umesh Kumar Rustagi, Director, Nehru Science Centre, Mumbai. Various scientific research institutions participated in the program by displaying their research work during all three days.

During Fiesta various programs such as Meet The Scientists, Demonstration and Interactive session on Development of Go-Kart for Racing Events, Drone Demonstration, Solar Astronomy workshop, Science Demonstration on Atmospheric Pressure and Vacuum, Fun at Low Temperature, Fun with Dry Ice, Shell Craft Making Workshop, Demonstration on Robotics, Reel Making Competition, Astronomy Slide Show, Dr. APJ Kalam Memorial Astronomy Seminar, Fancy Dress Competition, water rocket workshop, Hand Painting Competition, Clay Modeling Workshop, Science Rangoli Making Competition,

Workshop on Food Adulteration, Demonstration on fingerprinting & forensic science, C.V. Raman Memorial Lecture etc.

In all 8247 students, teachers and general visited witnessed the event.

## B. SCIENCE SEMINARS

Name of the Museum/Centre	Venue	Date/s	College/School	Level (Dist./ Zonal/ State)	No. of Students	No. of Institutions	Audiences
GSC Panaji	GSCP	27.02.2024	Invited school	State Level	6	6	163

- Dr. APJ Kalam Memorial Astronomy Seminar organized at the centre for 6 selected schools wherein they presented the seminar on different astronomy related topic on 27.02.2024. Total 163 audiences were present for the seminar.

## C. CREATIVE ABILITY / VACATION HOBBY WORKSHOP

The creative science activities for students are conducted in the centre to inculcate an attitude of scientific inquiry and for encouraging students in experimentation and innovation. Every year during summer and Diwali vacations creative science workshop are conducted in the disciplines of science (Physics, Chemistry, Life Science), electronics, computers, art & craft, aeromodelling, model rocketry, clay modeling, etc.

Name of Museum/ Centre	GSC Panaji
No. of projects in Museum's CAC	--
No. of students involved in above	--
No. of Vacation CAC in Museum	16
No. of students involved in above	267
No. of projects completed in above	1068
No. of outstation CAC programme	--

- Batch I from 24 to 28.04.2023  
 Science toy making workshop for the students of class Ist to IVth (23 participants)  
 Mathemagic workshop for the students of class Vth to VIth (20 participants)  
 Robotics workshop for the students of class VIIIth to Xth (12 participants)
- Batch II from 08 to 12.05.2023  
 Fun Science workshop for the students of class Ist to IVth standard (25 participants)  
 Model Rocketry workshop for the students of class Vst to VIIth standard (24 participants)  
 Skill development in Electronics workshop for the students of class VIIIst to Xth standard (12 participants)

- Batch III from 17 to 21.05.2023  
Basic Arduino workshop for the students of class VIIIst to XIIth standard (6 participants)  
Science Buzz workshop for the students of class Ist to Ivth standard Goa (11 participants)  
Creative Science workshop for the students of class Vst to VIIth standard (14 participants)
- Batch IV from 22 to 26.05.2023  
Bio-technology workshop for the students of class VIIIst to XIIth standard (20 participants)
- Batch V from 30.10.2023 to 03.11.20223  
Sci-Kids workshop for the students of class Ist to IVth standard (20 participants)  
Lantern Making workshop for the students of class Vth to VIIth standard (18 participants)  
hands-on Chemistry workshop for the students of class VIIIst to Xth standard (09 participants)
- Batch VI from 6 to 10.11.2023  
Science Buzz workshop for the students of class Ist to IVth standard (20 participants)  
Amazing Astronomy workshop for the students of class Vth to VIIth standard (24 participants)  
Skill Development in Electronics workshop for the students of class VIIIth to Xth standard (09 participants)

#### D. SIT & DRAW / ESSAY WRITING & OTHER CREATIVE PROGRAMMES / COMPETITIONS

These programmes are organised to encourage children to express their thoughts on various science topics. The programmes are well attended and the work of children is normally commendable.

Name of the Museum/ Centre	Name of the Contest	Venue	Date & Occasion	No. of Students	Subject
Goa Science Centre, Panaji	Spot Quiz	GSCP	22/04/2023 World Earth Day	76	Planet Earth
	Online Technology Quiz	GSCP	11/05/2023 National Technology Day	82	Technology Quiz
	Online Environmental Quiz	GSCP	05/05/2023 World Environment Day	123	Environmental Quiz
	State level painting and Poster Designing Competition	GSCP	19/05/2023 World Environment Day	586	Clean & Green Environment'
	Online Astronomy quiz	GSCP	30/06/2023 Asteriod Day	210	General Astronomy
	State level essay writing competition	GSCP	08.07.2023 World Population Day	115	sustainable growth for sustainable future

State level Elocution competition	GSCP	10.07.2023 World Population Day	76	effect of overpopulation on development and nature
Spot quiz	GSCP	15.08.2023 Independence Day Celebration	73	Indian Flag
Environment Quiz	GSCP	26.08.2023 Students of Sustainability	365	Environment
Elocution Contest	GSCP	27.09.2023 Hindi Pakhwada	45	Plastic Free India
spot quiz	GSCP	21.09.2023 & 22.09.2023 Swachhata Pakhwada	68	Swachh Bharat Abhiyan'
online Quiz	GSCP	23.09.2023 Swachhata Pakhwada	72	Swachh Bharat Abhiyan
Painting Competition	GSCP	01.10.2023 Swachata Pakhwada	76	Swachhta Hi Seva
Fancy Dress Competition	GSCP	01.10.2023 Swachata Pakhwada	32	Swachhata Doot
Western Ghat Quiz	GSCP	09.10.2023 Wild Life Week Celebration	165	Western Ghat
Cooking Competition using Millets	GSCP	11.10.2023 International Year of Millets	76	Millets
Exhibit hunt quiz	GSCP	10.11.2023 International Science Centre and Science Museum Day	78	GSCP Exhibits
State level energy conservation quiz	GSCP	11.12.2023 National Energy Conservation Day	80	Energy Conservation
Painting competition	GSCP	12.12.2023 National Energy Conservation Day	130	Energy is life: Conserve It
Poster designing competition	GSCP	12.12.2023 National Energy Conservation Day	145	Save Energy for Sustainable future
first level of certificate of Experimental skills	GSCP	24.12.2023	10	Skill test
Spot quiz	GSCP	12.01.2024 National Youth Day	136	history and significance of National Youth Day
Reel Making Competition	GSCP	27.02.2024 National Science Day	03	Science & Society

	Hand Painting Competition	GSCP	27.02.2024 National Science Day	80	Wildlife
	Fancy Dress Competition	GSCP	27.02.2024 National Science Day	65	I am Scientist
	Space Quiz	GSCP	28.02.2024 National Science Day	64	Space & Astronomy
	Science Rangoli Making Competition	GSCP	28.02.2024 National Science Day	16	Science
	Spot quiz	GSCP	22.03.2024 World Water Day	39	Water

11.

### A. TEACHERS' TRAINING PROGRAMMES (TTP)

Teachers' Training Programme envisages providing an opportunity and exposure to secondary/primary school teachers in handling of tools & raw materials. It also introduces them to new techniques as well as ideas for developing low cost teaching aids with ultimate goal of '*build your own laboratory*' concept.

Name of Museum/Centre	Number of Programmes	No. of teachers trained	No. of teaching aids/kits developed
GSC Panaji	06	423	86

- The Centre organized workshop on the topic 'Shree Anna: role of millets in global nutritional security, climate adaption, health and prosperity' by Dr. Parveen Kumar, Director, ICAR-Central Coastal Agricultural Research Institute, Goa at on 14.08.2023 for the school and higher secondary teachers. In total around 213 teachers participated in this workshop.
- The Centre in collaboration with Siddha Clinical Research Unit, CCRS, Ministry of Ayush, Govt. of India organized workshop on how to make healthy and delicious millet based recipes on 31.08.2023. In total around 146 teachers participated in this workshop.
- The Centre organized Teachers training program by Dr. H.M. Pednekar, Director, Konkan Geographers Association on occasion of 22<sup>nd</sup> Anniversary Day celebration of centre on 21.12.2023. Total 23 teachers participated in this workshop.
- The Centre in collaboration with Vigyan Parishad Goa and Bombay Association of Science Education organized teachers training program from 29.01.2024 & 30.01.2024. During the workshop teachers were trained in developing experimental skill. Dr. Paresh Joshi, TIFR and Dr. Shashibhal Pandey, Professor, smt. CHM college, Thane were the resource person for the workshop. In total 20 teachers participated in the workshop.
- The Centre during National Science Day organized Shell Craft Making Workshop for the teachers at on 26.02.2024. Total 11 participated in the workshop.

- The Centre during National Science Day organized workshop on Food Adulteration for the teachers 28.02.2024 in which 10 participated.

## B. COMPUTER TRAINING PROGRAMMES

Computer training programmes are organised for students, teachers, housewives & senior citizens where they are exposed to the basics of Computer, use of computers in classroom teaching etc.

Name of Museum/Centre	Number of the Programmes	No. of Participants	Subject
GSC Panaji	01	03	Basics of computer, Graphics Multimedia, Window, MS Office Internet, E-mail, etc.

## C. CYBERSKOOL

## D. ASTRONOMY & TELESCOPE MAKING PROGRAMMES

During the telescope making programme the participants are given training in grinding & polishing of mirrors and finally in fabrication of reflector type telescopes and testing of the same.

Name of Museum / Centre	Venue	No. of Programmes	No. of Participants	No. of Projects made
GSC Panaji	GSCP	--	--	--

### Astronomy Education Program:

Information about Sky Observation Programmes including Astro Night event and all other astronomy related programmes and activities organised during the year by Goa Science Centre.

- During the year the Centre conducted 54 Sky Observation Program in which 12906 students, teachers and general public were benefitted.
- The Centre observed Zero Shadow Day 02.05.2023 by making special arrangement to see the rare phenomena of zero shadow. Around 228 students, teachers and general public witness and participated in the activities conducted related to zero shadow.
- The Centre organized online quiz on astronomy for school students on 30.06.2023 as a part of Asteroid Day Celebration. Total 210 students attended the program.
- The Centre made special arrangements for Live screening of Chandrayan 3 launching for the staff and visitors on 14.07.2023. In total around 58 people witnessed the event.
- The Centre organized Zero Shadow Day observation on 11.08.2023 by making special arrangement to see the rare phenomena of zero shadow to the public visiting the centre. Around 73 students, teachers and general public witness and participated in the activities conducted related to zero shadow day.

- The Centre organized live screening of soft landing of Chandrayaan 3 Lander on Moon Surface on 23.08.2023. Total 115 students and general public witness the event.
- The Centre organized made special arrangements for screening the launching of Aditya-L1 mission on 02.09.2023. A science demonstration on exploring sun was also conducted for the students and general public. Posters giving detail information about the aditya L1 mission was also displayed. Around 132 students, teachers and general public attended the program.
- During the year the Centre organized two Astro Night Tourism at Miramar beach on 17.01.2024 and 14.02.2024 respectively. Total 5526 visitors witness the event.
- The Centre organized Solar Astronomy Workshop by Shri Satish Nayak, President of Association of Friends of Astronomy on 26.02.2024 followed by sunspot observation through telescope. Total 34 students attended the workshop.
- The Centre in collaboration Association of Friends of Astronomy organized Space Quiz on 28.02.2024 in which 64 students participated.

## E. AEROMODELLING

Aeromodelling programmes are conducted with an objective to enthuse students to take interest in aviation science. During the programme participants are briefed about the principles of aerodynamics and different aspects of airplanes & flying machines. They are also trained to make models such as chuck gliders, catapult and rubber powered gliders etc.

Name of Museum/Centre	No. of Programmes held	No. of Participants	Types and nos. of models
GSC Panaji	01	28	2/28

## F. MODEL ROCKETRY

Model Rocketry programmes are organised to introduce the participants to the principles of rocketry and for training them in fabricating various types of rockets. The students also fabricate launch pad and range finder to measure the height attained by rockets. The students also test the rockets.

Name of Museum/Centre	No. of Programmes held	No. of Participants	No. of models
GSC Panaji	1	12	12

## 12. COMMUNITY PROGRAMMES

### A. DEVELOPMENT OF SCIENTIFIC TEMPER

This programme is aimed at creating scientific temper by demystifying various myths and superstitions prevalent in the society. Demonstration lectures are regularly organised in each centre.

Name of Museum/ Centre	Venue	No. of programmes	Audience	No. of outside volunteers trained
GSC Panaji	Don Bosco High School	01	400	00

### B. SCIENCE DRAMA / PUPPETRY / OTHER FORMS OF PERFORMING ART

Science Centres incorporate various science communication methods to effectively disseminate the information. This programme is one of such methods, which is very effective for young children. NCSM has launched this nationwide programme through the network of NCSM Centres.

Name of the museum/centre	Venue & Level	Topic	No. of Schools	No. of participants	Audiences
GSC Panaji	GSCP/ State Level	Science & Society	49	645	1348

### NATIONAL SCIENCE DRAMA FESTIVAL

#### WESTERN ZONAL LEVEL SCIENCE DRAMA COMPETITION

The Centre in collaboration with State Council of Education Research and Training, Goa organized State level Science Drama competition at from 11.09.2023 to 13.09.2023. Students from all over Goa performed on the theme 'Science & Technology for the benefit of mankind'. In total 49 teams with around 1348 participants participated in this program.

### C. OTHER COMMUNITY PROGRAMMES

Science Centres, specially Regional Science Centres and District Science Centres organise regular community programmes to create awareness and educate rural and urban population on new developments in science and technology relevant to them.

#### Goa Science Centre, Panaji

##### 1. Programs for the Underprivileged Children

- The centre also arranged free visit of underprivileged Children. The students were provided with guided tour to the galleries, science demonstration lectures, 3D show and Planetarium show. The students were also given refreshments and science kits. In all 4399 children got benefitted.
- The Centre organized painting competition on theme 'Swachhta Hi Seva' on 01.10.2023 for the underprivileged children from community classroom orphanage, tonca. After the competition the students were taken to the guided tour in galleries followed by prize distribution.



## **2. Program for Girls and Women**

- The Centre in collaboration with Department of Tourism, Govt. of Goa organized Cooking Competition using Millets as primary ingredient for the aspiring chefs and home cooks during World Tourism Day on 11.10.2023 in which total 76 participants took part in the competition.
- The Centre organized workshop on Determination of Food adulteration for girls and housewives on 07.03.2024 as a part of International Women's Day. In total 22 women participated.
- The Centre organized workshop on make greeting card using paper circuit for girls and housewives on 08.03.2024 as a part of International Women's Day. In total 25 women participated.

## **3. Programs for Senior Citizens**

Goa Science Centre organized Computer awareness program for Senior citizens and general public from 03.04.2023 to 08.04.2023. In total 3 participants participated.

## **4. Environmental Awareness Programs**

- The Centre in collaboration with Goa Forest Department organized Clean up walk at Miramar beach to beat the plastic - Beach Cleaning Campaign on 05.04.2023 as a part of World Environment Day Celebration. Pledge was also vowed during the program. Total 46 officials & staff of GSCP and Goa Forest Department participated in the campaign.
- The Centre in collaboration with Goa Forest Department participated in Plant a Tree plant a life campaign 05.04.2023. During the campaign 50 fruit bearing plant saplings given by Goa Forest Department were planted by GSCP staff and officials from Goa Forest Department.
- The Centre in collaboration with Goa State Biodiversity Board organized State level painting and Poster Designing Competition for school students 16.04.2023. In total 586 students participated in the competition.
- The Centre in collaboration with Goa State Biodiversity Board and Goa State Climate Change Cell organized Monsoon Observer Program on 21.04.2023. During the program Shri Nilesh Cabral, Hon'ble Minister, Environment & Climate Change distributed rain gauge and wet & dry bulb thermometer to the selected students from different location of Goa.
- The Centre organized online Environmental Quiz on 05.05.2023 for the students of class VIIIth to Xth standard as a part of World Environment Day. Total 123 students participated in the quiz.
- The Centre in collaboration with Students of Sustainability organized Environment Quiz for the school students. The written elimination round was held on 21.08.2023 in which total 76 teams from all over Goa participated. Further as a part of the quiz two semifinal rounds and the final round was held on 26.08.2023 after which prizes and certificates were awarded to the winners.

## 5. Other Programs for Community

- Sci-Birthday celebration: The Centre initiated a new activity for interested individuals to celebrate their child birthday in Goa Science Centre. A birthday was celebrated on 06.04.2023 & 11.05.2023. During the celebration, the birthday guests were given a guided tour to the galleries, 3D show, Planetarium show, demonstration on dry Ice and Sky observation program.
- As a part of the international Science Olympiad the first round of National Standard Examination in Astronomy was conducted at Goa Science Centre on 25.11.2023 and National Standard Examination in Physics, Chemistry, Biology was conducted on 26.11. 2023. In total 116 students registered for the exam.
- The Centre in collaboration with Metropolis Healthcare Ltd organized Free Blood Test Camp on 19.01.2024. Total 65 public including many senior citizens participated in the camp and got tested.

## 13. COMMEMORATIVE EVENTS

Science Centres regularly organise commemorative programmes to celebrate special Days, viz. World Earth Day, National Technology Day, International Museum Day, World Environment Day, international Yoga Day, World Population Day, International Science Centre & Science museum Day, National Science Day, etc. in order to mark the significance of these days in the history of development of science & technology and contribution of these developments in human welfare.

The detailed report for commemorative events is given in **ANNEXURE-IV**.

## 14. COLLABORATIVE PROGRAMMES

Science Centres organize a number of educational programmes for school/college students and general public throughout the year. For organizing such programmes the Centres join hands with outside organisations having common objectives of creating scientific temper in the society.

The detailed report for collaborative programmes is given in **ANNEXURE - V**.

## 15. TRAVELING/TEMPORARY EXHIBITIONS

Temporary exhibitions are organised to highlight various important issues concerning society with scientific input.

1. An exhibition on My Own Collection inaugurated by Dr MM Ramesh Kumar, Former Scientist from National Institute of Oceanography, Goa at the centre on 16.05.2023 wherein 16 participants displayed their hobby collections like stamps. Coins, etc. The exhibition was open for the public upto 18.05.2023 and around 1649 visitors witness the exhibition.
2. A sample exhibition titled 'Millets for Health' inaugurated by Dr. Parveen Kumar, Director, ICAR-Central Coastal Agricultural Research Institute, Goa at the centre on 14.08.2023. The exhibition

was open for the public upto January 2024 and in total around 56359 students, teachers and general public visited the exhibition.

**16. LIBRARY**

<b>Name of the Museum/ Centre</b>	<b>Item</b>	<b>Total holding as on 31/3 of previous year</b>	<b>No. acquired during the current year</b>	<b>No. written off during the current year</b>	<b>Net holding as on 31/3 of current year</b>
<b>GSC Panaji</b>	Books	582	04	--	586
	Journals	24	--	--	24
	Newsletters	-	--	--	-
	Leaflets	--	--	--	--
	Films 16 mm	06	--	--	06
	Video tapes	09	--	--	09
	Slides	--	--	--	--
	VCD/DVD	209	04	--	213
	Photo-prints	3866	--	--	3866
	CDs	33	--	--	33
	Audio cassettes	--	--	--	--
	Maps & Charts	02	--	--	02

## 17. PUBLICATIONS

Name of the Museum/Centre	Name of the publication	Process	Quantity	Agency
Goa Science Centre, Panaji	Certificates of Creative Science Workshops	Colour Digital Prints	100	Suraj.com
	Certificates World Environment Day	Colour Digital Prints	600	Suraj.com
	Invitation of world Population Day	Colour Digital Prints	50	Suraj.com
	Certificates World Population Day	Colour Digital Prints	200	Suraj.com
	Certificates of International Museum Day	Colour Digital Prints	30	Suraj.com
	Certificates for workshops during International Year of Millets celebration	Colour Digital Prints	500	Suraj.com
	Certificates for Elocution Competition during Hindi Pakhwada	Colour Digital Prints	50	Suraj.com
	Certificates for Elocution Competition during Swachata Pakhwada	Colour Digital Prints	50	Suraj.com
	Certificates for Cooking competition using Millets	Colour Digital Prints	100	Suraj.com
	Certificates of Creative Science Workshop	Colour Digital Prints	150	Suraj.com
	Certificates of National Energy Conservation Day	Colour Digital Prints	250	Suraj.com
	Posters Science Fiesta 2024	Colour Digital Prints	40	Suraj.com
	Certificates Science Fiesta 2024	Colour Digital Prints	400	Suraj.com
	Invitation cards of Science Fiesta 2024	Colour Digital Prints	100	Suraj.com

**18. CONSTRUCTION, REPAIRS & RENOVATION**

Name of the Museum/ Centre	SI No	Name of the Work	Tender value of work in lakhs of Rupees	Gross value of work done during 2021-2022 (Rupees in Lakhs)	Date of commencement of work as per the Agreement/ Work Order	Date for completion
1	2	3	4	5	6	7
<b>GSC Panaji</b>	1	Repairing and painting of galleries	3.46	3.34	05.10.2023	20.10.2023
	2	Upliftment of Goa Science Centre Planetarium and Surrounding areas	1.93	1.93	16.12.2023	19.12.2023
	3	Supply & Installation of Roller Blinds	0.49	0.49	23.01.2024	29.01.2024
	4	Fixing of Jute Fabric on Walls of Activity Hall	0.49	0.49	08.02.2024	15.02.2024
	5	Polishing of wooden structure in the Auditorium	0.23	0.23	21.02.2024	24.02.2024
	6	Painting of Inner walls of Auditorium	0.24	0.24	21.02.2024	26.02.2024

**19. PROCUREMENT OF EQUIPMENTS**

Name of the Centre	Sl. No.	Name of Equipment	Qty.	Date of Procurement	Cost (Rs.)
Goa Science Centre, Panaji	1.	Ahuja Amplifier Model TZA2000DP	01 No.	19.06.23	21990.00
	2.	Ahuja Sure Microphone with cable	3 Nos.	19.06.23	22925.00
	3.	600mm Heavy duty Exhaust Fan	01 No.	11.08.23	8956.00
	4.	600mm Heavy duty Exhaust Fan	10 Nos.	06.10.23	85900.00
	5.	Dell Precision Workstation	01 No.	30.10.23	117882.00
	6.	Optoma make Laser Short throw projector	01 No.	13.11.23	271104.00
	7.	Samsung TFT monitor	01 No.	09.01.24	24500.00
	8.	Cyber power UPS 2.2 KVA	01 No.	09.01.24	8201.00
	9.	Supply & Installation of LED illuminated NCSM Logo	01 No.	06.02.24	16520.00
	10.	TVSE Dot matrix printer	01 No.	09.02.24	11682.00
	11.	EPSON Printer Eco Tank	01 No.	09.02.24	24980.00
	12.	Blue Star 1.5 Tr split AC	03 Nos.	21.02.24	130576.00
	13.	Steel Almira of size 78" x 36" x 19" 20 gauge with 4 shelves	03 Nos.	27.02.24	45000.00
	14.	Visitors Chairs	40 Nos.	01.03.24	99993.00
	15.	Bosch Make Angle Grinder	01 No.	07.03.24	22538.00
	16.	Blower Superior make 9EC 1 BT	01 No.	15.03.24	6006.00
	17.	Ahuja Microphone AWM 630 VG	01 No.	18.03.24	6020.00
	18.	View sonic make Projector	02 Nos.	21.03.24	304384.00
	19.	HP make workstation Desktop	01 No.	21.03.24	150922.00
	20.	Software work & Blend software Immersive Player Pro ultimate	01 No.	27.03.24	104430.00
	21.	Viewsonic Projector LS 55DWHE	04 Nos.	27.03.24	249958.00
	22.	Workstation Model HPZ420	01 No.	27.03.24	170448.00
	23.	Kinect Sensor	01 No.	27.03.24	16500.00
	24.	3-Seater chair with arm and backrest	15 Nos.	27.03.24	117750.00

**20. PERSONNEL****NEW APPOINTMENT ON CONTRACTUAL BASIS FOR ONE YEAR**

Name of the Museum / Centre	Sl. No.	Full Name of personnel	Designation	Date of Joining
GSC, Panaji				

**NEW APPOINTMENTS (REGULAR)**

Name of the Museum / Centre	Sl. No.	Full Name of personnel	Designation	Date of Joining
GSC, Panaji	-	--	--	--

**PROMOTIONS**

Name of the Museum / Centre	Sl. No.	Full Name of personnel	Designation Prior to Promotion	Designation after promotion	Effective date of promotion
GSC, Panaji	-	--	--	--	--

**TRANSFERS**

Sl. No.	Name of personnel	Designation	From	To	Effective date of transfer
--	--	--	--	--	--

**RETIREMENT / REPATRIATION / RESIGNATION**

Name of the Museum / Centre	Sl. No.	Full Name of personnel	Designation	Retirement/ Repatriation/ Resignation	Effective date
--	-	--	--	--	--

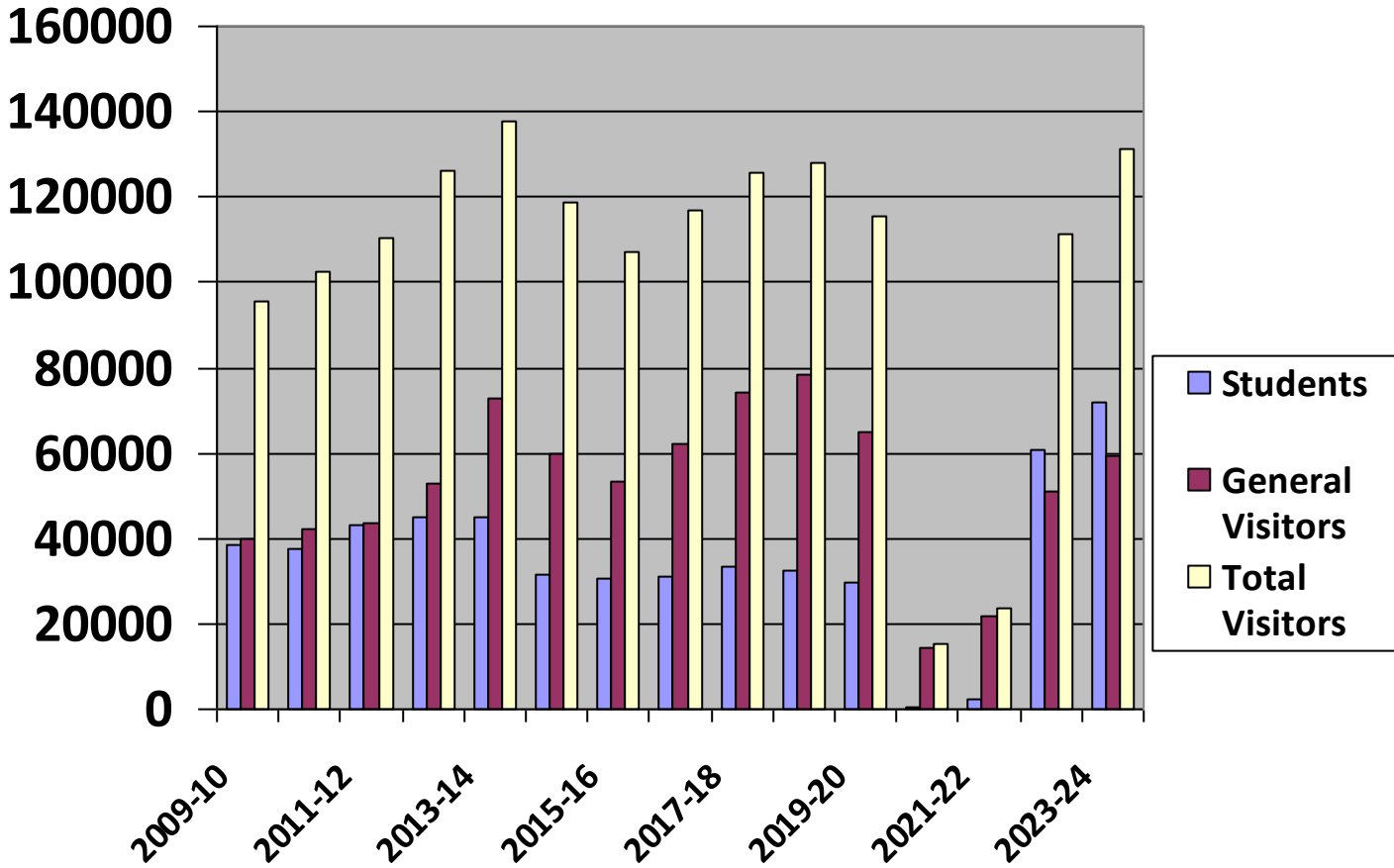
**21. MISCELLANEOUS****DISTINGUISHED VISITORS**

<b>NEHRU SCIENCE CENTRE, MUMBAI</b>		
<b>Sl. No.</b>	<b>Name of Guest</b>	<b>Designation</b>
<b>GOA SCIENCE CENTRE, PANAJI</b>		
1.	Dr. Rajiv Kumar Chaturvedi	Professor from BITS, Pilani, Goa Campus
2.	Shri Nilesh Cabral	Hon'ble Minister, Environment & Climate Change
3.	Dr Vithal Tilvi	Astronomy Professor, Research, Development and Innovation , State Higher Education Council, Directorate of Higher Education, Goa
4.	Shri T Anil Gangadharan	Retired flight engineer from Indian navy
5.	Dr Rajendra Borkar	Medical Superintendent, South Goa District Hospital, Margao
6.	Dr Supriya Phadnis	Assistant Professor, Healthcare management, Goa Institute of Management
7.	Dr Uttam Dessai	Chief Medical Officer, State Family Welfare Bureau, Directorate of Health Services
8.	Dr. Parveen Kumar	Director, ICAR-Central Coastal Agricultural Research Institute, Goa.
9.	Mr Bhagirath Shetye	Chairman, Goa Board of secondary & higher secondary education, Goa
10.	Mr Rajendra Kerkar,	Welknown Environmentalist from Goa
11.	Shri Sujeetkumar Dongre	Programme director of centre for environment education
12.	Prof. Sanjit Mitra, Professor	Scientist G from LIGO-India Science spokesperson and LIGO-India Project Coordinator, IUCAA, Pune
13.	Dr. Pramod Sawant	Honorable Chief Minister of Goa
14.	Shri Levinson J Martins	Director, Department of Science, Technology & Waste Management, Govt. of Goa



ANNEXURE-I

VISITOR STATISTICS of GSCP during period 2009-10 to 2023-24



**ANNEXURE-II**

**EXHIBITS/KITS DEVELOPED AND RENOVATED AT NEHRU SCIENCE CENTRE, MUMBAI**

**EXHIBITS/KITS DEVELOPED AND RENOVATED AT GOA SCIENCE CENTRE, PANAJI**

**A. Exhibits Developed**

<b>Sr. No.</b>	<b>Name of the Exhibit</b>	<b>Gallery / Park</b>
1.	Supplemented Reality	Fun Science
2.	Scale down Rocket Model LVM3-M4	Science Park
3.	FRP Model of Astronaut	Science Park

**B. Exhibits Renovated**

<b>Sr. No.</b>	<b>Name of the Exhibit</b>	<b>Gallery / Park</b>
1	Swing is Pendulum	Park Exhibit

**C. Kits/Teaching Aids Developed**

<b>Sr. No.</b>	<b>Name of the Kit/Teaching Aid</b>	<b>Type</b>
1.	Resistance Vs Temperature	Kit cum Table Top Exhibits
2.	Blood Donor Receiver	
3.	Jerking Woodpecker: Spring Action'	
4.	Pin Screen	

**ANNEXURE- III**

**LIST OF POPULAR SCIENCE LECTURES**

**Goa Science Centre, Panaji**

<b>Sr. No</b>	<b>Date</b>	<b>Venue</b>	<b>Topic</b>	<b>Name of the Lecturer</b>	<b>Audience</b>
1.	25/04/2023	GSCP	Clean & Green Environment	Mrs. Harshada Gauns, President, Arranya Environment Research Organisation, Goa	88
2.	12/05/2023	GSCP	Threats on the Internet and Precautions	Ms. Fiona Perpectual Coutinho, Assistant professor of Padre Conceicao College of Engineering, Verna	106
3.	18/05/2023	GSCP	Goan Culture through Philately	Dr Ramesh Kumar, Senior Scientist (Retired) National Institute of Oceanography	102
4.	30/06/2023	GSCP	Asteroids: Destroyer or Harbinger of life	Dr Vithal Tilvi, Astronomy Professor, Research, Development and Innovation , State Higher Education Council, Directorate of Higher Education, Goa	198
5.	01/07/2023	GSCP	steps to innovation, aerodynamics of airplanes and drones for future and role of science in cooking	Shri T Anil Gangadharan, retired flight engineer from Indian navy	109
6.	14/07/2023	GSCP	world population day	Dr Supriya Phadnis, Assistant Professor, Healthcare management, Goa Institute of Management	154
7.	20/07/2023	GSCP	Moon & Back	Shri Videsh Khandeparkar, Association of Friends of Astronomy, Goa.	189
8.	16/08/2023	GSCP	Millets for healthy life	Dr. Monica Suresh Singh, Scientist, ICAR – Central Coastal Agricultural Research Institute, Goa	348
9.	17/08/2023	GSCP	Millets for health	Dr. Paramesha V, Scientist, ICAR – Central Coastal Agricultural Research Institute, Goa.	221
10.	23/08/2023	GSCP	India's Giant Leap to Moon: Chandrayaan 3	Dr Reshma Raut Dessai, Assistant Professor in Physics, Goa University	260
11.	11/10/2023	GSCP	Importance of Millets for the healthy life	Mrs Sheryl Afonso e Dsouza, Assistasnt Professor from Department of Food Technology, Goa	79
12.	11/11/2023	GSCP	LIGO-India: Challenges and opportunities	Prof. Sanjit Mitra, Professor, Scientist G from LIGO-India Science spokesperson and LIGO-India Project Coordinator, IUCAA, Pune	196

13.	11/12/2023	GSCP	Save energy	Shri Abhinav Apte, Environmental consultant in sustainability and certified energy Auditor	176
14.	21/01/2024	GSCP	Mysteries of the cosmos	Shri Neil Dmello, Popular speaker	45
15.	27/02/2024	GSCP	Achievement by ISRO	Dr Jaya Saxena from National Remote Sensing Centre, ISRO	169
16.	27/02/2024	GSCP	Intellectual Property Rights	Dr Ashutosh Saxena, professor & Dean R&D, CMR Technical Campus, Hyderabad	169
17.	26/02/2024	GSCP	Joy of Astronomy	Team of Association of Friends of Astronomy	79
18.	27/02/2024	GSCP	Era of Astronomy	Team of Association of Friends of Astronomy	36
19.	28/02/2024	GSCP	How climate change affecting the world ocean	Dr Suhas Shetye, Senior Scientist, National Institute of Oceanography	179
20.	28/02/2024	GSCP	Vector Borne Disease: Prevention & Control	Dr Nadini Korgaonkar, State Entomologist, NVBDCP, Directorate of Health Services	186
21.	28/02/2024	GSCP	C.V. Raman Memorial lecture	Dr Ramesh Kumar, Rtd. Senior Scientist from NIO	143

## ANNEXURE - IV

### COMMEMORATIVE EVENTS

#### GOA SCIENCE CENTRE, PANAJI

1. The Centre observed World Earth Day by organizing Spot quiz for general public and a bird Nest making activity for the school students on 22.04.2023. Total 16 students participated in this activity.
2. The Centre observed National Technology Day by organizing Aeromodeling workshop for the students of class Vth to VIIIth standard on 11.05.2023. Total around 28 students participated in this Workshop.
3. The staff of the Centre practiced Yoga Asanas from 8.00am to 9.00am on 21.06.2023 on occasion of 9<sup>th</sup> International Day of Yoga. The yoga session was guided by Mrs Harleen Shawney, Yoga Preneur and Ayurvedic Wellness Coach.
4. The Centre in collaboration with State Family Welfare Bureau, Directorate of Health Services, Govt. of Goa observed World Population Day by organizing Essay writing on 08.07.2023 in which 115 students participated and elocution competition on 10.07.2023 in which 76 students participated.
5. The Centre observed Hindi Pakhwada from 14.09.2023 to 28.09.2023 by taking Rajbhasha pledge by the staff members of centre, Hindi Workshop, Elocution competition for school students and to encourage usage of Hindi language in daily work various competitions like Poetry recitation, translation of English word to Hindi, Hindi slogan recitation, dumb charades etc. was organised for the staff of the Centre.
6. During Swachhata Pakhwada Cleanliness drives, Swachhata Pledge, an online Quiz on 'Swachh Bharat Abhiyan' for school students, workshop on toys from trash for general public on 23.09.2023, Elocution Contest on the topic 'Plastic Free India' for school students on 27.09.2023, film shows were organized.
7. The Centre in collaboration with Goa Forest Department observed Wild Life Week by organizing State Level Western Ghat Quiz for college students on 09.10.2023 in which total 165 audiences were present for the Quiz.
8. Cleanliness campaign under Swachhata hi seva shramdaan activities aiming to generate jan-andolan through community participation; to provide impetus on implementation of Swachh Bharat Mission on 02.10.2023. The Goa Science Centre organized fancy dress competition on theme 'Swachhata Doot' for primry school students in which 32 students participated.

9. The Centre observed Vigilance Awareness Week by taking Integrity pledge and spot quiz for public visiting the Centre from 31.10.2023 to 06.11.2023. Total 76 attended the quiz.
10. The Centre observed International Science Centre and Science Museum Day by organizing exhibit hunt quiz for the students visiting the Centre on 10.11.2023, session on make and take science kit making on 11.11.2023 and Science demonstration on Atmospheric Pressure & Vacuum for the general public visiting the centre.
11. As a part Swachh Diwali, Shubh Diwali Campaign which promotes celebrating the festival of Diwali in an environmentally friendly and in clean manner the centre organized cleanliness campaign at Goa Science Centre on 13.11.2023.
12. The Centre observed Children's day by organizing science kit making session for the children's visiting the centre on 14.11.2023. In total 96 children's participated.
13. The Centre in collaboration with State Designated Agency, Electricity Dept. Govt. of Goa observed National Energy Conservation Day from 11.12.2023 to 14.12.2023 by organizing state level national energy conservation Quiz, Painting & Poster Designing Competition.
14. The Centre observed National Youth Day by organizing Spot quiz for the students and general public visiting the centre 12.01.2024. Total 136 students and general public attended the quiz.
15. The Centre observed World Water Day by organizing a spot quiz for the general public on 22.03.2024. In total 39 general public participated.

## ANNEXURE - V

### COLLABORATIVE PROGRAMMES

#### GOA SCIENCE CENTRE, PANAJI

**National Level:** Information about the Major collaborative programmes organised by the centres.

- The Centre participated in the Science Film Festival of India organised by Vidnyan Parishad, Goa from 18.04.2023 to 20.04.2023 in ESG complex, Campal Goa by participating in Science Expo, workshops and demonstration.
- The Centre conducted Liquid Nitrogen Show during India International STREAMM Festival expo 2024 on 29.07.2023 at Kid's Nest, Kurtarkar Nagri, Ponda, Goa. Total 365 attended the program.
- The Centre participated in the 9<sup>th</sup> edition of Science Film Festival of India organised by Vidnyan Parishad, Goa from 31.01.2024 to 02.02.2024 in ESG complex, Campal Goa by participating in Science Expo, workshops and demonstration.

**Information about the outreach programmes and activities conducted by the centre.**

- As an outreach activity science demonstration lectures on the topics Dry Ice show, Fun with chemistry and science magic show were conducted in Don Bosco High School, Panaji on 04.08.2023, 06.08.2023 & 07.08.2023. In total around 1200 students and teachers were present.
- The Centre participated in the Young Scientist 2023 Exhibition organised at Shiroda Higher Secondary School, Shiroda from 01.12.2023 to 02.12.2023. During the exhibition table top exhibits and science demonstration on topics like air pressure, sound, light etc. were demonstrated to the visiting students, teachers and general public. Around 1334 students, teachers and general public visited.
- The Centre participated in Education Expo 2024 where talents meet opportunities organized by Rotaract Club of Mapusa at peddem indoor stadium mapusa from 14.02.2024 to 17.02.2024. Around 6352 students, teachers, parents visited the exhibition of table top exhibits explaining various science concepts.

**International Level**

- Award winning Environmental documentary film were screened at Goa Science Centre in collaboration with International Film Festival Worldwide Cell on 05.02.2024 followed by an interaction session with the team. Total students 163 attended the program.

## Other collaborative programmes

- The Centre organized an awareness program on prevention of diseases caused by Mosquitoes by Mrs. Arpita Korgaonkar, NVBDP, Directorate of Health Services, Goa for the staff on 13.06.2023. Total 23 attended the session.
- The Centre in collaboration with Myracle.io organized Workshop for students on 30.07.2023 in which total 17 students attended.
- The Centre in collaboration with students for sustainability organized an Webinar on Role of students as future leaders in climate action on 26.08.2023. The expert in the panel discussion Mr Bhagirath Shetye, Chairman, Goa Board of secondary & higher secondary education, Goa and Mr Rajendra Kerkar, Environmentalist interacted with the students and general public. The Sujeetkumar Dongre, Programme director of centre for environment education was the moderator of discussion. Around 102 students and teachers were present o the program.
- The Centre in collaboration with Team Phoenix, Goa organized Drones & Robotics Workshop for the students, teachers and general public on 09.09.2023. In total 116 students attended.
- The Centre in collaboration with Myracle.io Germany organized an online workshop titled 'Generative AI Workshop' on 03.11.2023. Total 20 students were registered for the workshop.
- As a part of the international Science Olympiad the first round of National Standard Examination in Astronomy was conducted at Goa Science Centre on 25.11.2023 and National Standard Examination in Physics, Chemistry, Biology was conducted on 26.11.2023. In total 116 students registered for the exam.
- The Centre in collaboration with Myracle.io Germany organized online Game Design workshop 13.11.2023 to 16.11. 2023. Total 4 students registered for the workshop.



**22. COMMITTEE MEMBERS**

