

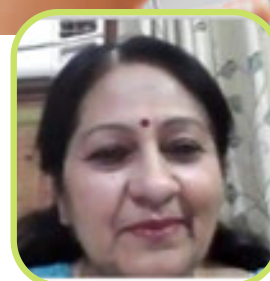


Buzzer

e-newsletter of Pushpa Gujral Science City

October - December 2022

Message from the Desk



Dear Readers

New Year Greetings from Pushpa Gujral Science City!

As we usher in 2023, we wish to thank all our readers, visitors and experts, students, teachers, mentors and the masses, for supporting us and helping us achieve our vision and mission of spreading scientific temper amongst all sections of the society. The year 2022 has been eventful- One new gallery (Mission Tandrust Punjab) was opened to public, One gallery (Electricity Gallery) & a theatre (Spark Theatre) was completed, 150 scientific events/activities were organized and we directly reached out to > 13,000 people as well as around 3.9 lakh visitors during the year. We're changing, improving and always in motion...

During the reporting quarter, PGSC signed a MoU with Vigyan Prasar for jointly organizing science communication activities to help us reach out to you in a better way. PGSC has also been recognized as a training partner by Atal Innovation Mission for providing training on Teacher training modules for ATL schools under Atal Innovation Mission. The annual event, Science Fest-2022 was organized in which > 250 school students showcased their innovative projects and models. Other events organized were: Wildlife week, National Mathematics Day, World Food Day, Global Dignity days, Energy Conservation Day, Art in Science Competition, etc.

PGSC has several ongoing programmes, like, the SD ASK programme which was launched in January 2022. Under this program, PGSC has set up SD ASK clubs in schools and presently we have a network of 43 schools. Your school may also join our SD-ASK network for focussed learnings on Sustainable Development Goals and what we can contribute as individuals to achieve them. Ms. Kamaljit Kaur may be contacted in this regard @ 8847431230.

Another program is 'School Membership Program' under which a school can become a member of the Innovation Hub by depositing an annual fee against which PGSC expert team will visit your school and organize Student/teacher trainings on various scientific issues, 3 times in a calendar year (at no extra cost). If desired, these trainings can be organized on-line as well. For details, you may contact, Er. Vishal Sharma @ 8146561236

As we look forward to another exciting year we present to you our e-calendar to help you keep track of your activities. The e-calendar can be accessed at: [http://www.pgsciencecity.org/assets/media/library/1672471334_PGSC_e-calendar_2023_\(2\).pdf](http://www.pgsciencecity.org/assets/media/library/1672471334_PGSC_e-calendar_2023_(2).pdf).

Wishing you the year 2023 full of happiness, peace, and prosperity.

Dr. Neelima Jerath
Director General

International Day for Older Persons (1.10.22)

The United Nations General Assembly designated October 1 as the International Day of Older People on 14 December 1990. Since then, the day has been celebrated spanning over several thematic areas. The overall umbrella theme for the United Nations International Day of Older Persons–2022 was “Resilience of Older Persons in a Changing World.” To use science for empowerment of rural women, Internet usage training was provided to mark this occasion. 19 women from villages surrounding PGSC attended the programme.



CELEBRATION OF WILD LIFE WEEK

Wildlife Week is celebrated from the 2nd to the 8th of October every year in India. Wildlife Week was conceptualized in 1952 with a long-term goal to safeguard the lives of the endangered and threatened species of animals. This week is commemorated to increase awareness among the common masses regarding the role of wildlife in maintaining nature’s equilibrium. PGSC organized following activities to commemorate this week as under:

World Habitat Day (03.10.2022):

Dr. Gaurav Sharma, Scientist ‘E’ and Officer-in-charge, Northern Regional Centre, Zoological Survey of India (MoEFCC, GoI), Dehradun delivered an on-line talk on “Status of Faunal Diversity and their conservation in India”.

Bird Watching activity (05.10.2022)

Bird watching for 27 students and 2 teachers from Shri Guru Hargobind Sr. Sec. School, Ferozepur was organized at PGSC Campus.

Birds Nest Making activity (06.10.2022)

PGSC organized Bird Nest Making activity for 20 students and one teacher from State Public School, Nakodar at its campus.



International Day for Disaster Reduction (13.10.2022)

The International Day Disaster Reduction-2022 focussed on Target G of the Sendai Framework: “Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.” At this occasion, fire safety and fire fighting techniques were demonstrated at PGSC campus to >150 people (students and general public).

World Food Day (15.10.2022)

World Food Day is observed annually on 16 October to highlight the millions of people worldwide who cannot afford a healthy diet and the need for regular access to nutritious food. The theme for 2022 was "Leave NO ONE behind". At this occasion, Dr. Kiran Bains, Professor and Head, Department of Food and Nutrition, Punjab Agriculture University, Ludhiana delivered an on-line talk on "A Healthy Diet is all about getting the right balance". About 100 students and teachers participated

"A healthy diet helps to protect against malnutrition in all its forms, as well as noncommunicable diseases (NCDs), including diabetes, heart disease, stroke and cancer."

Dr. Kiran Bains, Punjab Agriculture University



Global Dignity Day (19.10.2022)

The third Wednesday of October recognizes Global Dignity Day. The initiative educates & inspires youth to help them better understand their self-worth. The theme of Global Dignity Day-2022 was self-respect, ambition, hard work, a feeling of accomplishment.

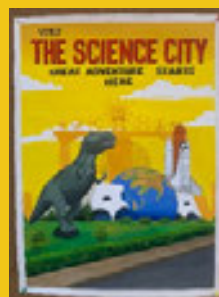
PGSC organized a Seminar on "Dignity through Science & Technology" at this occasion. Dr. Nakul Parashar, Director, Vigyan Prasar was the Chief Guest at the occasion. Dr. B.K. Tyagi, Former Scientist 'F', Vigyan Prasar delivered a talk. Around 250 students and teachers participated in the program. Caption contest was also organized and winners were awarded.

At this occasion, PGSC & Vigyan Prasar also signed a MoU for jointly organizing science communication/popularization activities.



Art in Science Competition

An "Art in Science" Competition was organized by PGSC involving participation of Fine Arts students from colleges and Sr. Sec. Schools. The prize distribution ceremony was held at PGSC on 19.10.2022.



1st Prize
Yangchan Dollker
HMV College



2nd Prize
Preeti Gupta
HMV College



3rd prize
Sanamdeep Singh
SPPS convent school



"The accomplishment of dignified life for all must be the prime responsibility of humans and it would be possible if we use Science and its applications for the benefit of the society."

Dr. Nakul Parashar, Director, Vigyan Prasar



Visitors watching partial solar eclipse on October 25- the last solar eclipse of the year at #PGSC

SCIENCE FEST - 2022 (19.11.22)

PGSC organized Science Fest 2022, an annual event to develop innovation and creativity among school students. A competition of Innovative projects / models was organized. 120 innovative projects /models were presented by students from class 7th to 12th. Cash prizes ranging from Rs.5,000/- to Rs.500/- were awarded to the winners. The Jury comprised experts from Thapar University, NIT, Jalandhar and GNA University. Some of the projects were selected by NIT Jalandhar for further mentoring.



Entrepreneurship Development Programme (22.11.2022)

GNA University Technology Business Incubator and PGSC jointly organized Entrepreneurship Development Program for school children at PGSC Campus, Kapurthala. Mr. Paramjit Singh, Director, Regional Centre for Entrepreneurship Development was the keynote speaker. The prize distribution ceremony of Science Fest was also held. Dr. V.K. Rattan, former Dean, Panjab University and presently Vice Chancellor, GNA University, was the Chief Guest at the prize distribution ceremony.



Children's day celebration at PGSC

World AIDS Day (02.12.2022)

World AIDS Day, designated on 1 December every year since 1988, is an international day dedicated to raising awareness of the AIDS pandemic caused by the spread of HIV infection. PGSC has an HIV/AIDS gallery. At the occasion of World AIDS Day, a special guided tour of the Gallery was organized.



National Pollution Prevention Day (02.12.2022)

National Pollution Prevention Day is observed in India on December 2 every year. The main objective of this day is to raise awareness about pollution control measures and the prevention of industrial disasters. At this occasion, Dr. R.K. Setia, Scientist E, Punjab Remote Sensing Centre, Ludhiana delivered a talk on "Use of remote sensing to assess Crop Residue Burning: Impacts on Soil Health, Air Quality and Human Health".



Dr. R.K. Setia, Punjab Remote Sensing Centre, Ludhiana

National Energy Conservation Day (14.12.2022)

The need for energy resources is expanding along with the world's population. Energy Conservation Day is a reminder that we can no longer go easy with our energy sources and must conserve them. At this occasion, Dr. G. Sridhar, Director General, SSS-NIBE, Kapurthala delivered a talk on "Role of Renewable Energy for Sustainable Development".



Dr. G. Sridhar, SSS-NIBE

Webinar on Eco-friendly Textiles (16.12.22)

Er. Parambir Singh Malhi, Department of Apparel and Textile Technology, GNDU, Amritsar delivered a talk on "Eco-friendly textiles". Er. Malhi talked on What are Eco-friendly textiles, why should we care and how can we be involved? Er. Malhi said, "The textile industry is considered as the most ecologically harmful industry in the world. The eco-problems in textile industry occur during production processes and are carried forward right to the finished product. In the production process like bleaching and then dyeing, the subsequent fabric makes a toxin that swells into our ecosystem."



Er. Parambir Singh Malhi, Department of Apparel and Textile Technology, GNDU

PGSC participated in the India-International Trade Fair 2022 at New Delhi from 14.11.2022 to 27.11.2022 at the Punjab Pavilion. Major attractions were: Be a Ghost or Discover your twin, Skill game & Be an astronaut



Sh. Dilip Kumar, Principal Secretary, Industries & Commerce, GoP at PGSC stall



National Mathematics Day (22.12.2022)

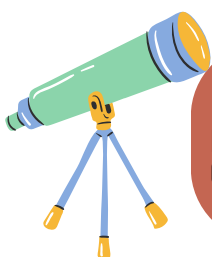
National Mathematics Day is celebrated on 22 December every year to mark the birth anniversary of legendary Indian mathematician, Srinivasa Ramanujan. At this occasion, PGSC organized workshop. Mr. Kirandeep Singh, Educationist, Founder of Mathematical Hub, (first ever in Punjab) and recipient of National Award 2017, Malti Gyan Peeth Puraskar 2018, Adarsh Shiksha Ratan Award 2019, State Award 2016, interacted with the students and demonstrated the complex concepts, viz. Algebra formulas, fractions, calculation tricks and trigonometry in an easy way with the help of working models, math kits and games. Students were also taken to the Mathematics gallery at Science City wherein they were demonstrated various concepts of mathematics through interactive exhibits .



Women Technology Park

Empowerment of Rural Women through Science based skill development' is an initiative taken by Pushpa Gujral Science City in collaboration with SEED Division, Department of Science & Technology, GoI to empower the women in rural areas. The project offers training to the rural women in Mushroom Cultivation (with special focus on *Pleurotus sajor caju*), Preparation of Cow Dung Logs & Pots and Value Addition to textiles (Hand Block Printing and Computer Assisted Embroidery).

During the reporting quarter, 8 women enrolled for training in Block printing cum computer embroidery, 27 women completed training in Dhingri cultivation, 4 women were trained in preparation of cow dung logs & pots and orientation sessions in 5 villages were organized with participation of 94 women.



NIGHT SKY WATCHING

During this quarter, Night Sky watching activity was organized for 373 students at - GCM Convent School, Dirhba, Sangrur (01.11.2022) for 150 students; Army School, Kapurthala (06.11.2022) for 123 students & Angel Valley School, Rajpura (03.12.2022) for 100 students .

From the Innovation Hub

Workshop on IR Sensor (04.10.2022)

The workshop was organized for 26 students from Swami Sant Dass School, Jalandhar. The students learnt the working of IR sensor and related circuits.

Workshop on Wireless Electricity (04.11.2022)

In this workshop, the students learnt the concept of electromagnetic induction. The workshop was organized for 17 students from Govt. High School, Dhariwal.

Workshop on Troubleshooting in Electronics (06.11.2022)

During the workshop, the participants were explained the working of basic electronic components. Students also learnt to check components like capacitors, wires, diodes, soldering problems, fuse and resistances. 21 students from Cambridge School and KV School attended the workshop.

Workshop on Automation (12.11.2022)

The students learnt about working of Infra Red sensors in automation. The workshop was organized for 38 students from Swami Sant Dass School, Jalandhar.

Workshop on Low Cost Water Level Indicator (26.11.2022)

In this workshop, the students designed an electronic water level indicator circuit to detect various level of water in a tank to stop the wastage of water. Besides, students also learnt the working of transistors, relay, resistance, LEDs and rectifiers. 26 students from Swami Sant Dass School, Jalandhar and Lord Krishna School attended the workshop.

Workshop on Robotics

The workshop was organized for students from Swami Sant Dass School, Jalandhar (15.10.2022, 24.12.2022 & 31.12.2022) & for Army School, Beas (31.12.2022) in which students learnt assembling of Robots, how to interface sensor with micro controller of Robot, etc.

Workshop on Fun With Robots (07.12.2022)

The students learnt how to assemble a robot, working of microcontroller and its interfacing with sensors and motors. Students assembled their own robots and programmed the robot using LEGO Kits. The workshop was organized for students from Swami Sant Dass School, Phagwara. 42 students participated in the workshop.

Workshop on 3D designing (17.12.2022)

The workshop was organized for students from Army School, Beas (14.12.2022) involving participation of 73 students and for students from Lord Krishna School (17.12.2022) involving participation of 28 students. The participants learnt 3D designing using Tinkercad software. They also designed tea cups, lockets and rings under the guidance of expert. The participants gained knowledge about various tools used in designing.



Christmas Day celebration at PGSC

SD ASK Program

PGSC had launched SD-ASK (Sustainable Development-Attitude, Skills and Knowledge) program to create awareness on Sustainable development among youth in Januray 2022. The program focuses to make children aware of citizen's role in achieving Sustainable Development, promote knowledge dissemination in the area and moulding their attitudes through activities, demonstrations, competitions, film shows and expert talks. Every fortnight an activity on a particular SDG is organized for the clubs. During the past quarter following activities were organized:

SDG 11 Talk on Reduce / Reuse / Recycle

A webinar focusing on SDG 11 was organized on October 01,2022. Mr. Manmohan Singh, Former Chief Engineer, Department of Local Government, GoP, was the speaker. Mr Singh shared the effective and advanced technologies to reduce, reuse and recycle the solid waste.

SDG13 Climate Action

At the occasion of International Day for Climate Action, a webinar on "Climate Change & Its Implications" was organized on October 28, 2022. Dr. P.K. Kingra, Prof. & Head, Department of Climate Change and Agricultural Metrology, Punjab Agricultural University, Ludhiana was the speaker at this occasion. Dr. Kingra informed that there are many causes of climate change that includes natural, external and anthropogenic factors. She further added that by the end of 21st century the temperature is likely to increase by 1.8 to 4.2-degree Celsius. She also shared possible solutions.

SDG14 Life below Water

To create awareness among students on how do oceans impact life and economy of people living far away from oceans, a webinar on this topics was organized on November 12, 2022. Dr. Simrit Kahlon, Prof., Department of Geography, Panjab University, Chandigarh was the expert speaker. Dr Kahlon said,"Oceans cover more than two thirds of Earth's surface. They are home to millions of species, provide a key source of protein to people on every continent, and play an enormous role in regulating our planet's climate, water cycle and more." She further added that oceans are facing tremendous disruption from human action, from altered temperature and circulation to overfishing to acidification to plastic pollution.

Film Show: life in oceans in collaboration with CEC

A film show on Life in Oceans was organized on December 05, 2022. The event was organized in collaboration with CEC. Ms. Alka Tomar President, CEC moderated the show. Following films were shown:

- Our Planet, Netflix
- Our Ocean, National Geographic
- Exploring the Coral Reef
- What really happens to the plastic you through away- Emma Bryce

245 students attended the event.



TICKET PRICES

Ticket	Discounted Children /Student/Teacher	Adult	Family (2 Adult + 2 Children)
Entry Ticket	120*	170*	520**
Package Ticket(Entry to galleries, Large Format Theatre or Digital Planetarium, Laser Show,3D Show, Climate Change Theatre)	285 *	375*	1190**
Package Ticket > 25 Group	275*	365*	1130*
Complete Package Ticket [Digital Planetarium or Large Format Film(Any one), Flight Simulator, Earth Quake Simulator, Laser Show, 3D Show, Climate Change Theatre, Galleries& Exhibits]	325*	445*	1390**
Complete Package Ticket > 25 Group	305*	425*	1340**
Discounts			
Minimum 500 students	10% on prevailing ticket rates		
Between 501 and 1000 students	12.5% on prevailing ticket rates		
Above 1000 students	15% on prevailing ticket rates		
Note: *includes Food coupon worth Rs 20/-			
** includes food coupon of Rs.80/-			

Annual Ticket Charges

You can visit PGSC any no. of time within one year of purchase of Annual Ticket. The cost of ticket is recovered in less than three visits. The Annual ticket rates are:

Student / Teacher: Rs 570/-

Adults: Rs 820/-

Orphans/ Handicapped / BPL Students: 290/-

Family (2 Adults + 2 Children (<18 yrs)): Rs 2500/-

Senior Citizens / Handicapped / BPL Adult member: 415/-

BPL / War Widow Families: Rs 1250/-

To know about membership benefits, please contact:
Ms. Manpreet Kaur; M: 7889291007

HOSTEL FACILITY FOR STUDENTS/TEACHERS

AC accommodation for 100 students and 10 teachers is available. Separate arrangement for boys and girls.

Stay charges: Rs 150/- per person (Food charges extra).For hostel booking, contact:
Mrs Harsimran Arora; Phone: 01822-501963, 501964

NIGHT SKY WATCHING

Science City provides Night Sky Watching facility when clear sky offers best view of the planets. Students/ Teachers: Rs 30/- , Adult: 50/-. Science City also provides Night Sky watching facility on demand of educational institutions at their own premises. Student / Teachers : Rs. 50/-. For more details & reservations, please contact: Ms. Kanika Sharma ; Mobile: 8837897789

BUSINESS OPPORTUNITIES

Register yourself as a Tour Operator or Be our Sponsors. For More Information, Please Contact: Dr. Munish Soin, Scientist D; M: 8146580387

Resident Editor: Dr. Rajesh Grover

Editor: Dr Loveleen Brar (Scientist C)



@PgSciencecity



@sciencecitypunjab



@sciencecity_GoP



@Pushpa Gujral Science City