

BUZZER

e-newsletter
PUSHPA GUJRAL SCIENCE CITY



October-December 2023



Message from the Desk

Dear Readers

New Year Greetings from Pushpa Gujral Science City!

2023 marked a remarkable year with numerous highlights and milestones ranging- from new facilities to the successful return of in-person events. Notable additions included Electricity Gallery- showcasing the evolving, creative and aesthetic nature of Electricity; the Spark Theatre, a unique facility demonstrating the production of electric spark; and an Anti-gravity room featuring a deceptive floor construction that creates the illusion of defying gravity. Throughout the year, approx. 4.09 lakh visitors were welcomed and 117 events were organized with the participation of over 12,528 individuals—curious minds of all ages indulging in science learning experiences, programs, and exhibitions. It's truly thrilling to witness so many people enthusiastic about exploring, discovering and being inspired by Science!



This year saw the organization of an International Seminar on "Education for Sustainable Development: Building Knowledge-Skills-Attitude". Besides, a meticulously designed series of five teacher training workshops focussing on low cost teaching aids was conducted aimed to involve students in hands-on activities, foster quicker learning, and discourage rote memorization, ultimately making science both captivating and enjoyable. Additionally, PGSC launched its anthem making a year of creativity, connection, and innovation.

Since its inception in 2005, Science City has consistently aimed to foster scientific temper and develop an informed and knowledgeable society, and this commitment remains unwavering. We express our heartfelt gratitude for your steadfast support extended to Pushpa Gujral Science City throughout these years and belief in the work we do have been instrumental in our ability to serve.

On behalf of Pushpa Gujral Science City, I extend warm wishes for a happy, healthy, peaceful, and prosperous New Year 2024. With the advent of the New Year, we welcome new hopes and aspirations to create a better tomorrow. We look forward to your continued engagement with Science City anticipating another eventful year in 2024.

With best wishes once again to all

Dr. Manish Kumar, IFS
Director General

Science Fest 2023

PGSC organized Science Fest 2023 (25.11.2023), an annual event to develop innovation and creativity among school students. A competition of Innovative projects / models on the theme “Science, Technology & Innovation for Societal Transformation” was organized. 110 innovative projects /models were presented by students from class 7th to 12th. Cash prizes ranging from Rs.5,000/- to Rs.1,000/- were awarded to the winners. The Jury comprised experts from Thapar University; NIT, Jalandhar and IKG Punjab Technical University.

Winners of Science Fest 2023:

1st Prize: Jashandeep Kaur & Gurpreet Kaur, Shri Guru Amar Dass Ji Senior Secondary School, Uchha Bet, Kapurthala

2nd Prize: Gurleen Kaur & Ashish, Government Secondary School Gobindpur, Khun Khun Hoshiarpur

3rd prize: Anjali & Jasmine, GSSS School Randhawa Masanda

Consolation Prize: Rinku & Chandan Verma, Government Senior Secondary Smart School PAU Ludhiana

Consolation Prize: Sanchita Sharma & Gursewak Singh, Government Sr. Sec. School Baler Khanpur, Kapurthala

Consolation Prize: Simran & Aapriti, Kamla Nehru Public School, Phagwara



PGSC hosted a meet of Directors, District Education Officers (DEOs), and school Principals across Punjab on 16/12/23. The event acted as a platform for educators to share insights, explore innovative teaching methodologies, and appreciate the role of science in education. The participants were given a comprehensive tour of Science City exploring various facilities that contribute to the enhancement of educational standards. The meet was attended by 50 participants including DEOs, Directors and Principals.

International Day of Older Persons (01.10.2023)

The day is celebrated annually to recognize the contributions of older persons and to examine issues that affect their lives. A talk on “Health & Wellness of Senior Citizens” was delivered by Dr. Baldev Singh Momi. Live Singing was also organized at this occasion.



World Wildlife Week (02.10.2023-8.10.2023)

Wildlife Week is held from October 2 to October 8 every year to spread the message of protecting and preserving India's flora and fauna. The week was celebrated at PGSC with talks on wildlife and Biodiversity game. The objective was to raise awareness of wild animals and their importance.



World Habitat Day (02.10.2023)

The United Nations designated the first Monday of October of every year as World Habitat Day to reflect on the state of our habitats, and on the basic right of all to adequate shelter. At this occasion, a workshop on ‘Nest Making’ was organized at PGSC. Young minds were sensitized towards the habitat of birds and their migration due to rapid expansion of cities. 25 students attended the workshop.



Workshop on House Wiring (09.10.2023)

The workshop was organized with an objective of imparting knowledge and skills on how to safely and competently conduct home electrical repairs. During the workshop, the students were briefed about proper selection of material, its use, manufacturing process, standard tests involved in manufacturing good quality products, as well as importance of using star rated appliances. Participants were also made aware on use of reputed ISI marked products. The workshop was conducted involving participation of 130 ITI and School students across Punjab.



International Day for Disaster Reduction (13.10.2023)



Held every 13 October, the day celebrates how people and communities around the world are reducing their exposure to disasters and raising awareness about the importance of reining in the risks that they face. A demonstration of fire fighting techniques and ways to respond swiftly in times of any emergency situation was demonstrated to visitors at this occasion. >200 students and general public attended.

Workshop on 'Low Cost Teaching Aids' (16.10.2023 – 18.10.2023, 30.10.2023 – 01.11.2023, 06.11.2023 – 08.11.2023, 23.11.2023 – 25.11.2023 & 04.12.2023 – 06.12.2023)

Pushpa Gujral Science City in collaboration with NCSTC, Department of Science and Technology, Government of India, successfully organised the 5 of 7 workshops on low-cost teaching aids for government school teachers. The workshops were held as part of a comprehensive series sanctioned by the NCSTC. These workshops focused on using low-cost teaching aids to effectively teach science concepts and enhance engagement in science education. DST recognized expert teachers and experts from NCSM, GoI were the resource persons. The resource persons facilitated an environment where teachers learnt to craft their own teaching aids that showcased various scientific principles to enhance conceptual understanding and stimulate creativity among students. 250 teachers from diverse districts of Punjab actively participated in the workshops.



World Food Day (19.10.2023)

World Food Day 2023 focused on the collective responsibility of society to foster healthy and sustainable food systems. The goal of the day was to emphasise equal access to food, and water, promote sustainable agricultural practices and raise awareness about food-related issues. An interactive session on the theme “Water is life-Water is food” was organized for school students. Following activities were also organized:

- Exhibition on Nutrition , Healthy Eating and Foods of India at PGSC
 - Poster making
- >300 students participated in the event.



Workshop on Fun Science (26.10.2023)

To develop curiosity and interest of students in science through informal teaching and fun filled activities, a workshop on Fun Science was organized for students. Experiments on Bernoulli's principle, inertia force, Boyle's law, surface tension, atmospheric pressure, sound, properties of air, etc. were demonstrated. 55 students attended the workshop.



Birthday of Marie Curie (07.11.2023)

Marie Curie was a physicist and chemist who conducted pioneering research on radioactivity. She was the first woman to win a Nobel Prize and the first person to win a Nobel prize twice, and the only person to win a Nobel Prize in two scientific fields. To commemorate her birth anniversary, a talk on the life and work of Marie Curie was delivered by Education Officer, PGSC. 30 students and teachers attended the talk.

Art in Science Competition (26.10.2023)

PGSC organized an Art in Science Competition to explore and illuminate the aesthetic beauty that results when science, art, and technology intersect. 30 entries were received from students of fine arts colleges from Jalandhar, Ludhiana, Amritsar & Chandigarh.

Winners of the Competition

- 1st Prize:** Reeva Sharma, HMV College, Jalandhar
- 2nd Prize:** Vishakha, Khalsa College for Women, Ludhiana
- 3rd Prize:** Ms. Palak, Amritsar
- Consolation Prize:** Ms. Ashima, Dev Samaj College for Women, Chandigarh



World Science Day for Peace and Development (10.11.2023 & 18.11.2023)

Celebrated every year on 10th November, World Science Day for Peace and Development highlights the significant role of science in society and the need to engage the wider public in debates on emerging scientific issues. PGSC celebrated the day by organizing the following activities :

10.11.23

- Talk on “Emphasizing importance of Science in our daily life” by Education Officer, PGSC
- Debate competition: “Scientific exploration of Space”

18.11.23 (under SD-ASK program)

- Expert talk by Mr. Neeraj Gaur, Scientist ‘F’, Nuclear Power Corporation of India Limited (NPCIL)
 - Poster making competition on the theme “Role of Science in shaping our future”
- 70 students from different schools participated in the event.



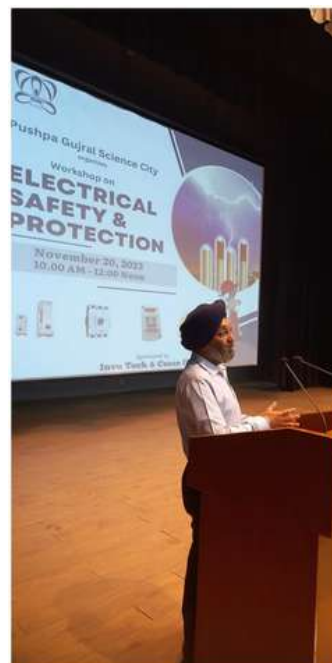
Intellectual Property Rights Day (08.11.2023)

The day is celebrated to raise awareness on how patents, copyrights, trademarks and designs impact daily life and to celebrate creativity, and the contribution made by creators and innovators to the development of economies and societies across the globe. A talk on “Intellectual Property Rights” for the youth was organized at PGSC. Dr. Abhinandan Bassi, Rajiv Gandhi National University of Law, Patiala was the expert speaker. She briefed the students about various concepts of Patent, Copyright, Geographical Indicator and Trademark by giving suitable examples. 150 budding engineers from various Engineering/ Polytechnic colleges took part in this event.



Workshop on Electrical Safety & Protection (20.11.2023)

The workshop (organized with the financial support of M/s Invo - Tech Engineers and Consultants, Jalandhar) was designed to impart knowledge, awareness, skills, and safety practices to various professionals. During the workshop, participants were provided information on the selection and use of fire extinguishers. They were also demonstrated how to control the diesel fire. Information on selection, working and uses of MCB's, ELCB's, RCBO's, etc, for human safety. Resource Persons from M/s Ceasefire Industries Pvt. Ltd, Dehradun & M/s SSK Engineering Company, Kapurthala were invited to conduct the workshop. 75 participants from school & ITI students and security staff of PGSC attended the workshop.



World AIDS Day (01.12.2023)

World AIDS Day is an annual event which serves as a reminder of the global struggle to end HIV-related stigma, an opportunity to honor those we have lost, and a rallying cry to commit to working toward a day when HIV is no longer a public health threat. Red ribbons were pinned, on-spot quiz competition and special demonstrations in the HIV/AIDS gallery at PGSC were organized. The Red ribbon is an internationally recognized symbol for AIDS awareness, worn by people in support of people living with HIV & in remembrance of those who have died.



National Pollution Control Day (8.12.2023)

National Pollution Control Day is observed in memory of those who lost their lives in the Bhopal Gas tragedy on 2nd December 1984. The day aims to bring awareness about the fatalities caused due to polluted water, land, and air. Also, to highlight how to avert industrial disasters like the Bhopal Gas Tragedy. At this occasion, a talk on significance of this day and a declamation contest on the theme "Sustainable Development for a clean and Healthy planet" was organized at PGSC. 112 students from different schools participated in the event.

Winners of the Competition

1st Prize: Khwais Sood, Bawa Lalvani Public School, Kapurthala

2nd Prize: Yashkaran Rattu, MKM Public School, Kapurthala

3rd Prize: Ruhani Sood, Springdales Public School, Kapurthala

National Energy Conservation Day (14.12.2023)

National Energy Conservation Day was celebrated at PGSC with an objective to raise public awareness about the value of energy efficiency and conservation. At this occasion, Science Play contest on the theme "Conserve Energy to Preserve Future" was organized. More than 300 school students from various schools participated in the event.



Best out of Waste (20.12.2023)

organized under SD-ASK programme

The workshop “Best out of Waste” focused on how recycling and reusing the valuable waste material can result in development of fantastic and usable products. The students learnt various innovative and creative ideas to create new and useful products from waste material like old newspaper, cardboard, broken pieces of glass, dry fruit peels, waste fabric, used plastic bottles, etc. During the workshop, the students made wall decorations, paper bags, flowers, planters, face masks, photo frames, etc.

Dr. Anjana Bhatia, Dean (Innovation & Resarch) HVM College, Jalandhar was the resource person. 93 students from different schools participated in the event.

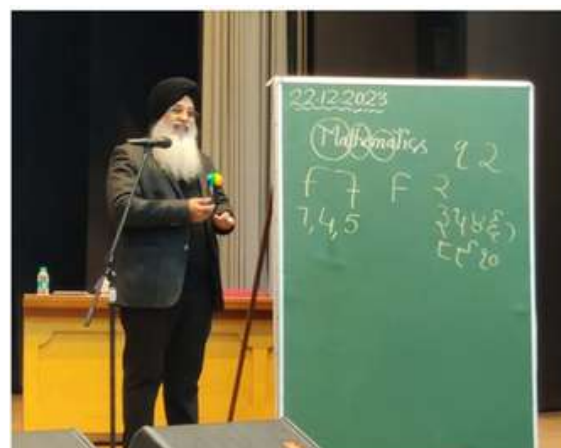


Science behind Textiles (21.12.2023)

The “Science behind Textiles” show imparted knowledge about different fibres, yarns and fabrics along with their properties and enabled students to understand fabric structures and their analysis. With the acquired knowledge students were able to identify different kinds of fabrics on the basis of how they respond to flame (from speed to smell and type of ash). Dr. Harpreet Kaur, HoD, Fashion Designing, KVM College, Jalandhar was the resource person. 73 students from different schools participated in the event.

National Mathematics Day (22.12.2023)

The day was celebrated to spread awareness about the importance of mathematics and the contributions made by Sh. Srinivasa Ramanujan, in the field of mathematics. PGSC celebrated the day by conducting hands-on activities for the students by Shiksha Ratan Awardee, Dr. Jaswinder Singh. He taught some interesting and quicker methods of calculations to create interest of students in the field of Mathematics. >200 students from different schools participated in the event.



Christmas celebration at PGSC



Innovation Hub



Workshop on Electronics Circuit Designing (04.10.2023)

The session provided an interactive and practical approach for students to learn circuit designing through online software platform. The software learning offered an opportunity wherein students performed experiments to create, simulate, and understand electronic circuits without the need for physical components. Students designed circuits based on tilt and temperature sensor under the guidance of the expert. The workshop was organized for students of Lord Krishna International School, Sultanpur Lodhi involving participation of 55 students.



Workshop on Project formulation (19.10.2023)

The objective of the workshop was to guide the students on how to make models. Students also learnt about materials and techniques required to make electronics based projects. The workshop was organized for students of Swami Sant Dass School, Jalandhar involving participation of 27 students.

Workshop on Electronics for beginners (25.10.2023)

The workshop was organised to make the students learn about the working of basic electronic components like transistors, capacitors, relays and integrated circuits. An introduction to digital multi-meter and its usage and troubleshooting were also explained. The workshop was organized for students of DAV School, Kapurthala involving participation of 56 students.

Workshop on IR Sensors (26.10.2023)

The workshop was organized for Innovation Hub members involving participation of 21 students. They learnt about the working of IR sensors, relay circuits and working of electronic components viz. resistance, capacitors, diodes in designing circuits. Participants were also guided to design a sensor based obstacle detector alarm circuit.



Workshop on self-balanced objects (31.10.2023)

In this workshop, participants learnt the concept of centre of gravity in balancing of the objects. They were also demonstrated cutting and designing of self-balanced objects made with scrap cardboard. 17 students participated.

Workshop on Arduino Coding (22.11.2023)

In this session, participants learnt about coding techniques of Arduino micro controller in open source software . They were also guided to make a sensor based circuit to control LED light as well as how to operate and program the Arduino controller. 18 students participated

Workshop on IR sensor (24.11.2023)

The workshop was organized for students of Lord Krishna School involving participation of 18 students. In this session, participants learnt the working of IR sensors, relay circuits and working of electronic components viz.relay modules, transistors, diodes in designing circuits. They were also guided to design an IR sensor based smart switch to turn on / off electrical gadget.



Workshop on troubleshooting in Electronics (28.11.2023)

The workshop was organized for students of Govt. High School, Dhaliwal Dona involving participation of 21 students. The workshop provided an insight into the working of basic electronic components used in electronics. The participants learnt how to check components like capacitors, diodes, soldering problems, fuse and resistances. They were also demonstrated troubleshooting techniques using Digital-multi-meter.

Workshop on Fun With Robots (29.11.2023)

The workshop provided an opportunity to the participants to learn about assembling of a robot, working of microcontroller and its interfacing with sensors and motors. Students assembled their own robots and programmed their robots using LEGO Kits. 23 students participated in the workshop.

Workshops on Artificial Intelligence (12.12.2023, 13.12.2023 & 21.12.2023)

Three workshops were organized for students of Preeta Lee Lesson, Kapurthala involving participation of 163 students. The workshops provided an insight into various aspects of artificial intelligence, its tools and applications through live demonstrations.





Environment Education Programme

A mandatory course on Environment Studies has been introduced by UGC in all under-graduate classes which includes a mandatory Field visit to areas providing environmental information. Since PGSC has several facilities and exhibits on various aspects of environment which can cater to the requirement of the course, students from several institutions/universities /colleges visit PGSC under the compulsory course on “Environmental Studies”. During the reporting quarter, a total of 1741 students from 14 colleges affiliated with GNDU and Punjabi University visited PGSC as a mandatory part of their field visit for the said course.

Night Sky Watching

To experience the natural wonders of the night sky, Science City offers Night Sky Watching facility wherein one can experience the best view of planets. Science City also provides Night Sky watching facility on demand of educational institutions at their own premises. Expert team from Science City visits the institution and organises Night Sky tour through high powered telescopes. During the reporting quarter, Night Sky watching activity was organized for 1925 students at 10 schools across Punjab.



Mobile Science Exhibition

Mobile Science Exhibition is an outreach program of Pushpa Gujral Science City to take Science and sustainable development education to the door steps of the people and create scientific temper in the society. The Exhibition Bus visited private schools on chargeable basis (@Rs 100 per student). During the reporting quarter the bus visited 8 schools covering 1632 students across Punjab.



Children’s Day celebration at PGSC

Ticket Prices

TICKET	ADULT	STUDENT / CHILDREN	FAMILY (2 ADULT + 2 CHILDREN)
Entry Ticket	180*	125*	550**
Package Ticket: 1 Entry to Galleries, Large Format Theatre or Digital Planetarium Laser Show, 3D Show and Climate Change Theatre (without Simulators)	405*	310*	1285**
Package Ticket-I Group for Group > =25	395*	295*	1220**
Package Ticket: 2 Entry to Galleries, Large Format Theatre or Digital Planetarium, Laser Show , 3D Show, Climate Change Theatre, flight simulator, Earthquake simulator	485*	350*	1505**
Package Ticket:2 for Group > =25	460*	330*	1450**

Note:-

- Special discounted packages (@50%) to orphans,handicaps,bpl,War Widow and families, senior citizens etc.
- Entry of one teacher is complimentary with the group of at least 25 students. Additional teachers will be charged ticket rates equivalent to that of students.
- *includes food coupon of 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 635/-
Adults: Rs 900/-
Orphans/ Handicapped / BPL Students: 320/-
Family (2 Adults + 2 Children (<18 yrs)): Rs 2750/-
Senior Citizens / Handicapped / BPL Adult member: 450/-
BPL / War Widow Families: Rs 1375/-
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

*GST @ 12 % (extra)

NIGHT SKY WATCHING

Science City provides Night Sky Watching facility when clear sky offers best view of the planets. Students/ Teachers/Adult: 60/-. Science City also provides Night Sky watching facility on demand of educational institutions at their own premises. Student / Teachers : Rs. 60/-. Minimum students required for booking: 100 + to and fro Travelling @ Rs.12 per km + stay facility for PGSC team for 1 night. 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 Sooin, Scientist D; M: 8146580387

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Editor: Dr Loveleen Brar , Scientist C



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