

BUZZER

e-newsletter
PUSHPA GUJRAL SCIENCE CITY

January-March 2024



Message from the Desk



Greetings!

Dear Valued Learners,

A hearty welcome to the commencement of the academic year 2024-25! Just as in previous quarters, our commitment to advancing science remains unwavering.

We've continued our endeavours in a mission-oriented approach to make science more accessible, fostering a scientific mind-set, and supplementing formal education through non-formal means to explain complex scientific concepts for both the public and students alike, employing interactive exhibits and extracurricular activities to showcase the enjoyable aspects of science.

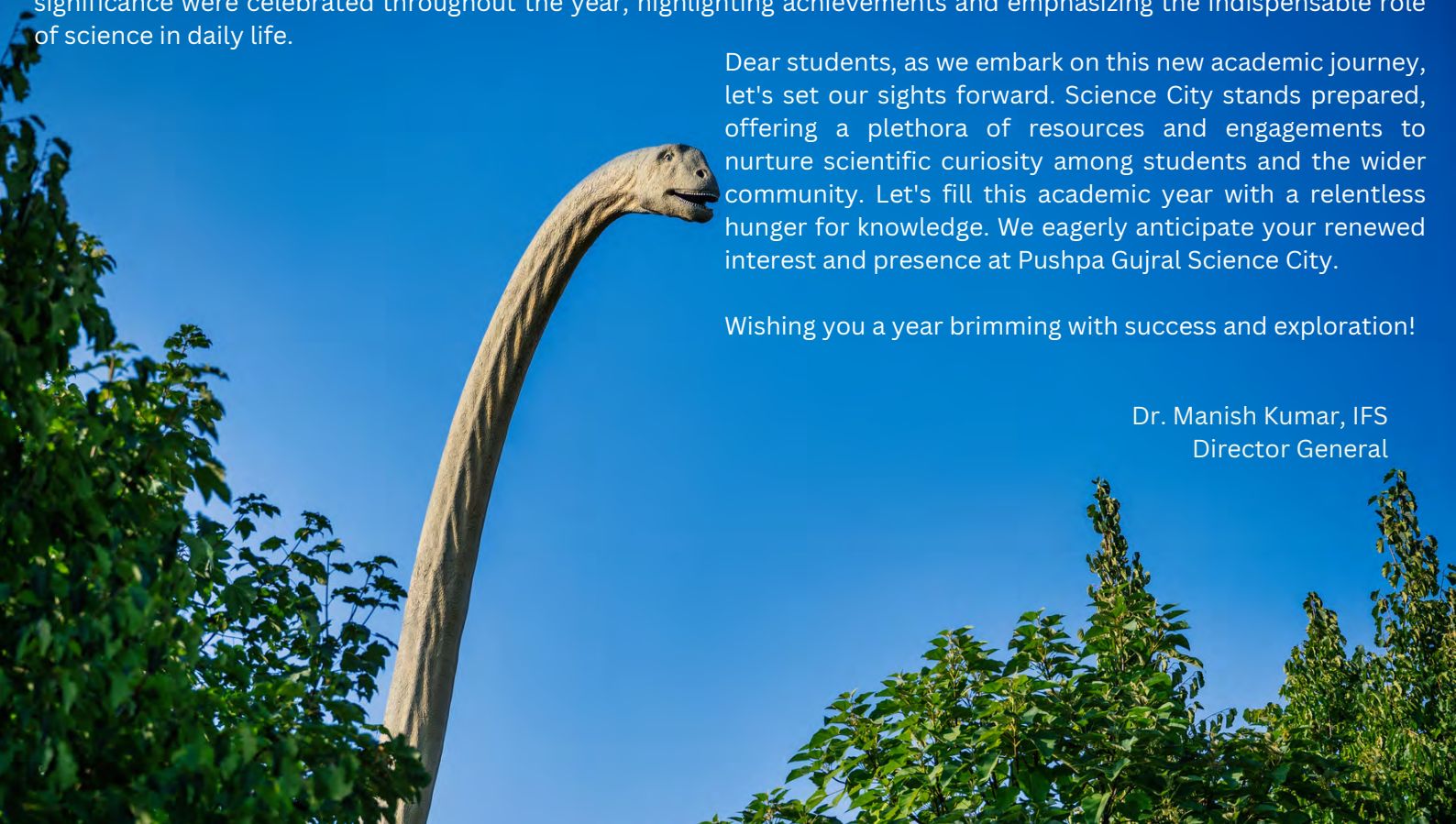
During the reporting quarter, Pushpa Gujral Science City (PGSC) commemorated its 19th Founders Day, marking nearly two decades of enlightening and inspiring millions through education and discovery. As we look ahead, the future brims with even greater and more exciting opportunities. To mark our 19th anniversary, we hosted InnoTech 2024, where over 400 students from various Engineering and Polytechnic colleges in Punjab showcased their innovative models.

Among the noteworthy events organized at Science City during this quarter were the Domesticated Animal Biodiversity (Dog) Show, the Floral Biodiversity (Flower) Show, and Mission LiFE (Lifestyle for Environment)- a mass movement advocating for a shift towards mindful and deliberate utilization instead of mindless and destructive consumption to protect and preserve the environment. Furthermore, numerous other scientific events of national significance were celebrated throughout the year, highlighting achievements and emphasizing the indispensable role of science in daily life.

Dear students, as we embark on this new academic journey, let's set our sights forward. Science City stands prepared, offering a plethora of resources and engagements to nurture scientific curiosity among students and the wider community. Let's fill this academic year with a relentless hunger for knowledge. We eagerly anticipate your renewed interest and presence at Pushpa Gujral Science City.

Wishing you a year brimming with success and exploration!

Dr. Manish Kumar, IFS
Director General



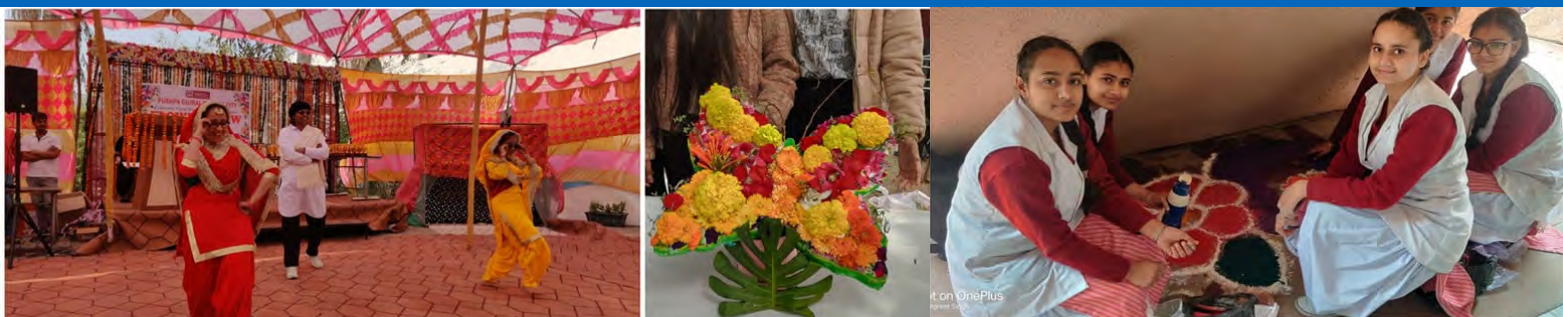
Domesticated Animal Biodiversity (Dog) Show (4.02.2024)

Pushpa Gujral Science City Kapurthala organized 17th & 18th All Breed Dog show along with German Shepherd Specialty Show with an objective to bring awareness in the society about domesticated biodiversity with a focus on various breeds of dogs. Exhibitors from all over Punjab participated. Over 100 dogs comprising 30 breeds participated in the show. Owners of dogs from Punjab and other states exhibited their pets and their skills during the show. 12 stalls related to dog foods and dog medicines were set up on this occasion. The Judges of the Show were Ms. Rishya Hemchandra from Bangalore, Sh. N.S. Aujla from Jalandhar and Sh. Harchand Singh from Patiala. All the winners were awarded with cash prizes and trophies .



Flower Show (2.03.2024)

Pushpa Gujral Science City hosted a vibrant flower show with over 100 varieties of flowers on display. The event, which included competitions such as potted flower, flower arrangement, flower rangoli and painting, provided a platform for participants to display their creativity and horticultural skills. Sh. Pirtpal Singh, Former Chief Executive Officer of Defence Estates, Ministry of Defence, Government of India, was the Chief Guest on the occasion.





Innotech 2024 (18.3.24-19.3.24)

Pushpa Gurjal Science City organized INNO-TECH 2024 in collaboration with IKG Punjab Technical University to commemorate the 19th Annual Day of Science City. Dr. Susheel Mittal, Vice Chancellor IKG Punjab Technical University was the Chief Guest on this occasion. He motivated the budding engineers, ignited their passion for groundbreaking ideas and technological advancements. More than 400 students from different Engineering & Polytechnic colleges of Punjab demonstrated their innovative models at this occasion. A team of experts from NIT Jalandhar and Thapar Institute evaluated the models.

Workshop on 'Low Cost Teaching Aids' (08.01.2024-10.01.2024 & 05.02.2024-07.02.2024)

Pushpa Gurjal Science City in collaboration with NCSTC, Department of Science and Technology, Government of India, successfully organised 2 workshops on low-cost teaching aids for Government school teachers as a part of a comprehensive series of 7 workshops sanctioned by the NCSTC. These workshops focused on using low-cost teaching aids to effectively teach science concepts and enhance engagement in science education. 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. Sh. Darshan Lal Baweja from Yamuna Nagar was the resource person. 100 teachers from diverse districts of Punjab actively participated in both the workshops.



Activities under Mission LiFE

Mission LiFE is an India-led global mass movement started by the Ministry of Environment, Forest & Climate Change, GoI to nudge individual and community action to protect and preserve the environment. During the reporting quarter, PGSC organized 2 nature camps and celebrated World Forestry Day & World Water Day under Environment Education Program of State Nodal Agency Punjab State Council for Science & Technology, Chandigarh to align with the objectives of Mission LiFE.



Nature Camp (15.01.2024 – 16.01.2024 & 15.03.24 - 16.03.24)

Two Nature Camps (two-days each) were organized for the students with an objective to bring the younger generation closer to nature and instill in them a profound sense of responsibility for the conservation of Natural resources. Following activities were organized:

- Nature trail
- Bird Watching
- Visit to Harike Wetland
- Biodiversity and Environment Games

80 students from Class 6th to 12th and 20 teachers from schools of Jalandhar & Kapurthala participated in the camp.



World Forestry Day (21.03.24)

The day was celebrated to create awareness on the importance of forests for survival of living beings. At this occasion, following activities were organized:

- Declamation Contest (Theme: Forests, Health and Sustainable development)
- Poster Making Competition
- Distribution of Saplings

World Water Day (22.03.24)

World Water Day is held annually on 22 March as a means of focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources. PGSC celebrated the day by organizing an expert talk, Science Play competition on the theme “Water for Peace” & Best of Waste competition. Dr Arvind Shakya, Assistant Professor, IISER, Mohali delivered a talk on “Bio engineered system for sustainable water/wastewater management and treatment”. More than 300 students and teachers from different schools of Jalandhar and Kapurthala participated in the event. Winners of different competitions were awarded with Cash prizes.





Newton's Day (04.01.2024)

A talk on "Newton's biography" and special hands-on activity session was organized to commemorate the birthday of Sir Isaac Newton, an English mathematician, physicist, astronomer, alchemist, theologian, and author. Newton formulated the laws of motion and universal gravitation that formed the dominant scientific viewpoint for centuries until it was superseded by the theory of relativity. Newton used his mathematical description of gravity to derive Kepler's laws of planetary motion, account for tides, the trajectories of comets, the precession of the equinoxes and other phenomena, eradicating doubt about the Solar System's heliocentricity. 69 students attended the session.



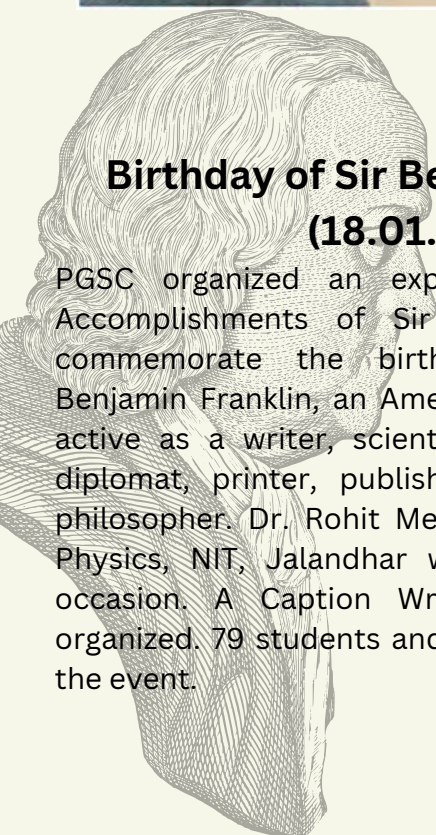
Workshop on Kitchen Ki Chemistry (25.01.2024)

The workshop was organized with the objective to give better understanding of "Acids and Bases" to school students. Students and teachers were also given a chance to perform different activities/experiments. The workshop challenged the participants to think about everyday food in a whole new way while also making complex chemistry concepts more understandable and relatable. 46 students and teachers from different Schools of Jalandhar & Kapurthala participated.



Birthday of Sir Benjamin Franklin (18.01.2024)

PGSC organized an expert talk on "Life and Accomplishments of Sir Benjamin Franklin" to commemorate the birth anniversary of Sir Benjamin Franklin, an American polymath who was active as a writer, scientist, inventor, statesman, diplomat, printer, publisher, forger and political philosopher. Dr. Rohit Mehra, Professor, Deptt. of Physics, NIT, Jalandhar was the speaker at this occasion. A Caption Writing Contest was also organized. 79 students and teachers participated in the event.



World Wetlands Day (02.02.2024)

PGSC celebrated World Wetlands Day with a passionate appeal for action, emphasizing the critical need to conserve and sustain wetlands. Commemorated annually on 2 February, this day holds significance as it commemorates the adoption of the Ramsar Convention in 1971. Over 200 students from various parts of Punjab actively participated in the event which centred around the theme "Wetlands and Human Wellbeing." Dr. Neelima Jerath, Former Director General, Science City, who had started working on wetland restoration in 1988, graced the occasion as the Chief Guest. In her address, she stressed upon the urgency of safeguarding wetlands underscoring that preventive action for conservation of wetlands is far more feasible than attempting restoration or re-creation at a later stage, which may prove to be too late. Dr. Jerath also highlighted the significance of wetlands as vital components of our lives. On this occasion, a painting competition was also organized. >150 students participated in the event.



World Cancer Day (06.02.2024)

World Cancer Day serves as a reminder of the global effort needed to combat cancer and the importance of early detection and care in saving lives. PGSC celebrated the day by organizing an expert talk by Dr. Bavneet Kaur Dang, Associate Professor, Punjab Institute of Medical Sciences, Jalandhar. Dr Dang spoke on "Risk factors and prevention of Cancer". On this occasion, Poster making Competition on the theme "Fight Cancer" was also organized. 130 students participated in the event.



Science Behind Miracles (08.02.2024)

The workshop was organized to create awareness about science behind miracles / magic's and motivated the students to dispel superstitions and myths associated with them. Sh. Rajinder Bhadour from Tarksheel Society Punjab was the resource person. 69 students attended the workshop.



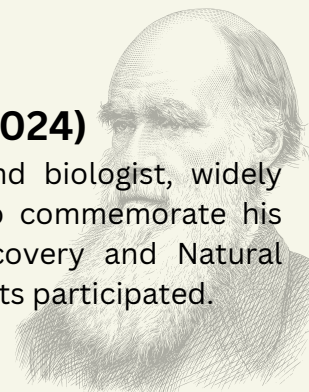
International Day for Women and Girls in Science (11.02.2024)

A panel exhibition on “Indian Women in Science - The Pioneers” who treaded the Unconventional Path was set up at PGSC on the occasion of International Day for girls and women in Science. Visitors discovered the inspiring stories of accomplished Indian women in STEM who fearlessly pursued their passions, leaving a lasting impact on the field and motivating women to follow in their footsteps.



B'day of Charles Darwin (13.02.2024)

Charles Darwin was an English naturalist, geologist, and biologist, widely known for his contributions to evolutionary biology. To commemorate his birth anniversary, a talk on “Darwin’s Voyage of Discovery and Natural Selection” & a Caption Contest was organized. >80 students participated.



National Science Day (28.02.2024)

National Science Day is celebrated every year on 28 February to mark the discovery of the ‘Raman Effect’ by Sir C.V. Raman. PGSC celebrated the day in collaboration with Punjab State Council for Science & Technology. On this occasion, an expert Talk on “How Aryabhata discovered the round shape of the earth” was delivered by Dr. T.V. Venkateswaran, Professor, IISER, Mohali. A special talk on “Waste Management” was delivered by Ms. Suhani Sharma, a young innovator. A Debate Competition on the theme “Significance of Indigenous Technologies in India’s Developmental Journey” was also organized. >300 students participated in the event.



International Women’s Day (7.03.2024)

PGSC celebrated the day by organizing a workshop on “Recycling Art: Waste to Wealth”. The main thrust was Inclusivity for all sections, especially, representing women from marginalised sections through waste to wealth craft. 53 girl students & teachers from different colleges participated in the workshop.



Workshop on Low Cost Teaching AIDS (30.03.24)

The workshop focused on using low-cost teaching aids to effectively teach science concepts and enhance engagement in science education. In the workshop, various low cost activities using waste material like concept of pressure, volume, density centripetal and centrifugal force, Bernoulli principle, Newton disc, etc. were conducted. 21 teachers from various schools attended the workshop.



Thomas Alva Edison Day (28.03.2024)

Thomas Alva Edison developed many devices in fields such as, electric power generation, mass communication, sound recording & motion pictures. These inventions, which include the phonograph, the motion picture camera, and early versions of the electric light bulb, have had a widespread impact on the modern industrialized world. To commemorate the Birth Anniversary of the famous inventor Thomas Alva Edison, hands-on activities on the principles of physics viz introduction of multimeter and electronics devices, capacitors, diodes, LED, etc, were organized. Students also learnt how to repair LED bulbs. 35 students from various schools of Jalandhar & Kapurthala participated in the session.



Workshop on Quick Common Tests to detect Food Adulteration at home (12.03.2024)

To give first-hand knowledge about food adulteration, different types of adulterants used in food varieties and importance of healthy food, a workshop on food adulteration was organized. 35 students from various schools attended the workshop.



SKYGAZING: Enjoy the wonders of the Night Sky

Night Skygazing is a fascinating way to experience the natural wonders of the night sky. It may be the Moon or the planets (if they are visible) or it may be deeper sky objects; looking through a telescope is awe inspiring! Science City offers this facility wherein one can experience the best view of planets. This facility is also provided at the premises of educational institutions. During the reporting quarter, Night Skygazing activity was organized for 138 students at GSSS, Kangar, Una.

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 534 students from GNDU, Amritsar; Bright Mind College of Education, Bathinda; Khalsa College of Law, Jalandhar; Khalsa College, Mohali; Mata Gujri College, Fatehgarh Sahib, etc visited Science City.



From the Innovation Hub

A project titled "Automatic Stagnate Water Ejector" developed by KMV College, Jalandhar under the mentorship of Innovation Hub of PGSC, has secured two patents for its design and process.

Workshop on Fun with Robots (20.01.2024)

The workshop was organized for students from Chanakaya International School, Jalandhar involving participation of 36 students. In this session, students gained insights into the various parts that make up a robot. Students also learnt assembling of a robot, working of microcontroller and its interfacing with sensors and motors. Students assembled their own sensor guided robots using LEGO Kits.

Workshop on Coding Techniques of Micro controller (31.01.2024)

The workshop was organized for students from Lord Krishna School, Sultanpur Lodhi involving participation of 48 students. Students learnt essential coding techniques to manipulate microcontrollers effectively including programming commands for controlling servo motors. This hands-on session enhanced the coding skills and provided practical understanding of how microcontrollers can be harnessed to control electronic devices.

Workshop on Artificial Intelligence (07.02.2024)

The workshop was organized for students of Swami Sant Dass School, Phagwara involving participation of 37 students. It provided an insight into various aspects of artificial intelligence, its tools and applications through live demonstration.



Our Winners

Flower Show

Painting Competition:

1st Prize: Jasmeen, St Mary Convent School

2nd Prize: Astha, St Joseph School, Jalandhar

Rangoli Competition:

1st Prize: Neelam Arora, DAV Model School, Kapurthala

2nd Prize: Arshdeep, DAV Model School, Kapurthala

General Public Asters:

1st Prize: Pushpa Gujral Science City

2nd Prize: Miss Rohini, Jalandhar

World Wetlands Day

Painting competition:

1st Prize: Parth, Dayanand Model School, Jalandhar

2nd Prize: Sakshi, Army Public School, Kapurthala

3rd Prize: Rishika Sharma, MGN Public School, Jalandhar

World Cancer Day

Poster Making competition

1st Prize: Kamyra, Jullundur Model Sr. Sec. School

2nd Prize: Tushti Gupta, CT Public School, Jalandhar

3rd Prize: Nikhil Kumar, Sainik School, Kapurthala

Consolation Prize: Monika, Chnaknya Int. School, Jalandhar

World Forestry Day

Declamation contest:

1st Prize: Vishakha Sharma, Kamla Nehru Public School

2nd Prize: Yashkaran Rattu, MKM Public School Jalandhar

3rd Prize: Jasleen Kaur, Kamla Nehru Public School, Phagwara

Consolation Prize: Vedika Dutta, DIPS, Suranussi

Poster making-

1st prize: Prince, MDSD Sr. Sec. School, Kapurthala

2nd prize: Shivika Sharma, Dayanand Model School, Jalandhar

3rd prize: Kulraj Kaur, DIPS Suranussi

Consolation Prize: Avneet Kaur, Kamla Nehru Public School, Phagwara

World Water Day

Street play

1st prize: Kamla Nehru Public school, Phagwara

2nd prize: MGN Public School, Jalandhar

3rd prize: Dayanand Model School, Jalandhar

Best of Waste

1st prize: Rajesh and Sonu from Mandi Harding Ganj high School, Kapurthala

2nd prize: Arshshdeep Singh and Vasu Gupta from D.A.V public School, Kapurthala

3rd prize: Simarpreet Singh and Vismaad Kaur from M.G.N public School, Jalandhar

Innotech 2024

Polytechnic (Automobile)

1st Prize: Sukhjeet Singh, Chandandeep Singh, Anmoljot Singh, Gaurav, Mehr Chand Polytechnic College. **Project Title:** Self Charging Bike

2nd Prize: Pranav Mahajan, Roshan Kumar, Manpreet Singh, Jashanpreet Singh, Guru Nanak Dev Polytechnic College. **Project Title:** Foldable E-Bike

Polytechnic (Mechatronics)

1st Prize: Chhotu Kumar, Sumit Kumar, Jobanpreet Singh, Kartikye Pundeer, Government Polytechnic College Khooni Majar. **Project Title:** Water Level Indicator, Control & Management System

2nd Prize: Vivek S, Mane Shreyas, Lovely Professional University. **Project Title:** Eye Controlled Wheelchair

3rd Prize: Irfan Ansari, Mohammad Kashif parwez & Md Tarique Eqbal, Lovely Professional University. **Project Title:** Remote operated solar panel cleaner

Polytechnic (Miscellaneous)

1st Prize: Ansh Sharma, Mohammad Asif, Lakshjeet Singh & Agrim Kalia, Mehr Chand Polytechnic College. **Project Title:** Solar Electronic Pesticide Sprayer.

2nd Prize: Aditya Rag, Lovely Professional University. **Project Title:** Heads-Up Notification Display

3rd Prize: Navdeep Singh, Nitish Kumar Singh & Vicky Kumar, Pt. J.R. Govt. Polytechnic College Hoshiarpur. **Project Title:** Portable Hand Injection Moulding Machine.

Consolation: Christine Retsepile Moyo & Tendai Thelma Satambara, Lovely Professional University. **Project Title:** Analysis and Design of Pedestrian bridge

Polytechnic (Software)

1st Prize: Himanshu Padam, Manya Mehta, Navneet Kaur & Fatehjit Singh, Mehr Chand Polytechnic College. **Project Title:** Bharat Darpan (Indian Census)

2nd Prize: Amulya Ponnala, Harsh Ranjan, Mansi & Anuradha Singh, Lovely Professional University. **Project Title:** Lens Care

Engineering (Automobile)

1st Prize: Himanshu Bagri, Aslam Khan, Bhupinder Singh & Karan, CEC, Landran, Mohali. **Project Title:** Electric Wheel borrow

2nd Prize: Akhil Dadwal, Parmjit Singh, Vishal Sharma & Jatin Saini, GNA University. **Project Title:** Electric-Bike

Engineering (Mechatronics)

1st Prize: Amandeep Singh, Samarpartap Singh, Manpreet Singh & Manish Kumar, Government Polytechnic College Khooni Majar. **Project Title:** Water Level Indicator, Control & Management System

2nd Prize: Harshdeep Singh, Vivek Verma & Madhur Tayal, Chitkara University Institute of Applied Engineering. **Project Title:** Automatic Robotic Arm

Engineering (Miscellaneous)

1st Prize: Khyath Thakur, Rishab Thakur, Lovepreet Singh & Sakshi Sharma, Chitkara University. **Project Title:** Aqua TEC.

2nd Prize: Nishant Marwaha, I.K. Gujral Punjab Technical University, Main Campus. **Project Title:** Renewable Electrical Energy Project

3rd Prize: Anurag Verma, Satish Verma & Krishna Bhanu, Chandigarh Engineering College, CGC Landran, Mohali. **Project Title:** Portable CPR Machine

Engineering (Software)

1st Prize: Avinash Kumar, Nicky Kumari & Vishal Yadav, Chandigarh Group Of College Landran (CEC), Mohali. **Project Title:** Advanced AI Integrated Multipurpose Drone

2nd Prize: Devashish, Sourabh, Pratiksha & Shubham Bhogal, Sant Baba Bhag Singh University. **Project Title:** DOS attack and its mitigation

Ticket Prices

Dome Theatre is currently under up-gradation stage. Accordingly, package tickets will not be available till further notice..

TICKET	ADULT	STUDENT / CHILDREN	FAMILY (2 ADULT + 2 CHILDREN)
Entry Ticket	195*	130*	585**
Space Theatre / Digital Planetarium	130	110	435
Laser Show	60	40	160
3 D Show	60	40	160
Earthquake Simulator	60	40	160
Flight Simulator	60	40	160
Climate Change Theatre	60	40	160

Note:-

-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 as many times as you like within one year of purchasing an Annual Ticket. The cost of ticket is recovered in less than three visits.

The Annual ticket rates are:

Student / Teacher: Rs 900/-

Adults: Rs 990/-

Family (2 Adults + 2 Children (<18 yrs): Rs 3025/-

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 Soin, Scientist D; M: 8146580387

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Editor: Dr Loveleen Brar , Scientist C



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