

BUZZER

e-newsletter of Pushpa Gujral Science City

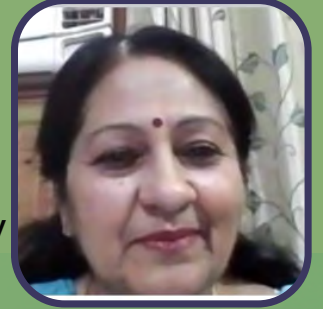
April - June 2023

Message from the Desk

Dear Readers

Greetings from Pushpa Gujral Science City.

Welcome to another new facility at Pushpa Gujral Science City - the ELECTRICITY GALLERY, set up at a cost of Rs.1.63 Cr, jointly funded by Ministry of Culture, GoI and Govt. of Punjab. The Gallery was dedicated to people of Punjab by Hon'ble Chief Minister Sh. Bhagwant Mann, on World Environment Day-2023. This new facility strives to help students understand the concepts about Electricity in an interactive manner through exhibits and hands on activities.



During the reporting quarter, PGSC organized Student Innovation Congress under *Azadi ka Amrit Mahotsav*, wherein the students presented unique innovative projects on topics like, Sustainable Livelihood, Climate Change, Energy, and Sustainable Cities & Communities covering SDG 1, 7, 11 and 13 to showcase their talent and ideas, which could be taken forward to benefit the State. The best ideas have been shared with NIT for further mentorship.

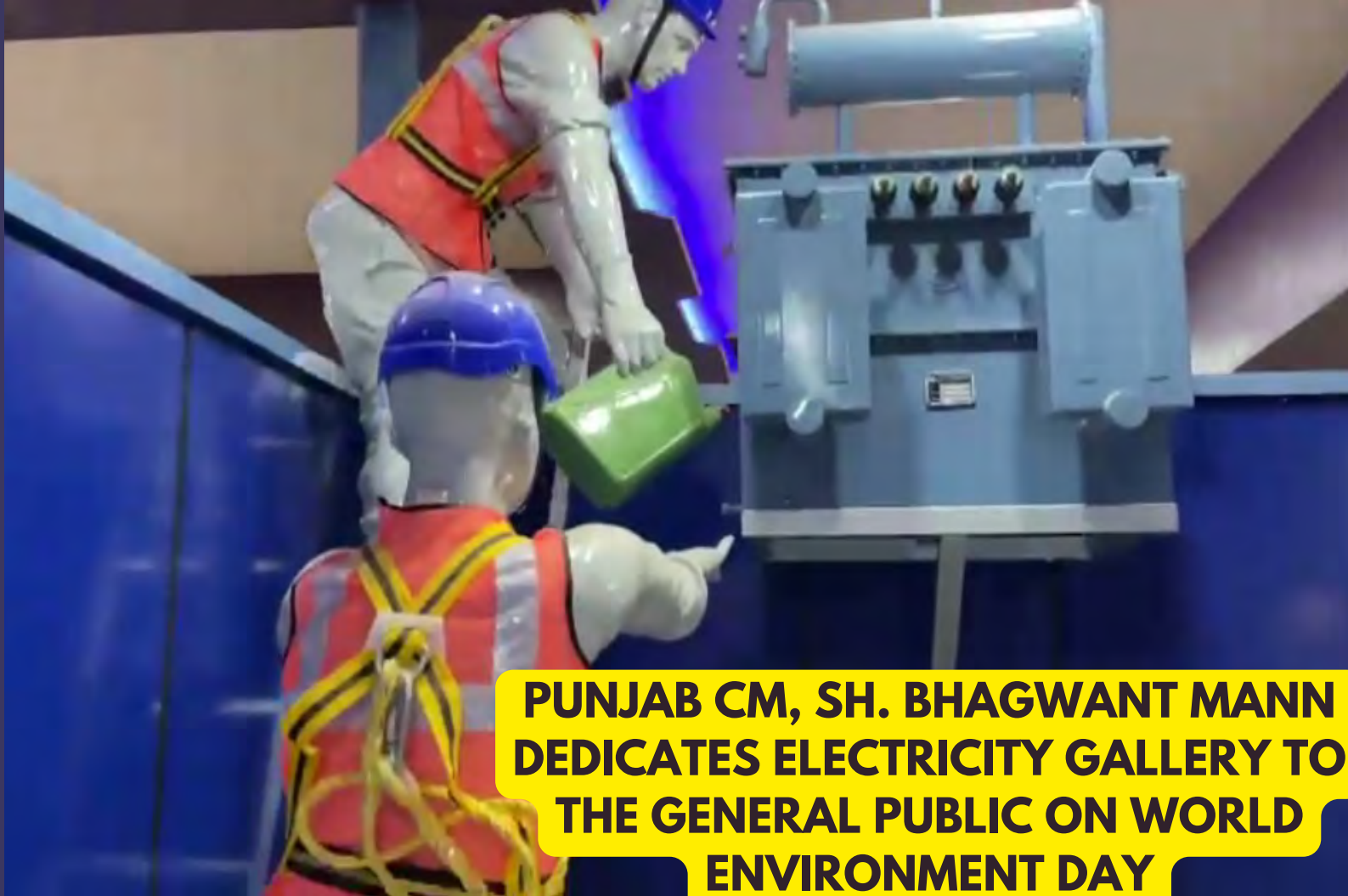
Further, important days, like, National Technology Day, International Museum Day, International Yoga Day, World drug Day, etc, were also celebrated.

Dear readers, PGSC provides you an interactive and informal learning environment in which you can see, hear and experience how scientific phenomena and technology play an important part in your lives. We invite you to come, discover and explore the science around you and stop, think & ask questions. Our Education staff and science guides would be happy to quench your thirst for knowledge by answering your queries.

Looking forward to having you at Science City.

Dr. Neelima Jerath
Director General





PUNJAB CM, SH. BHAGWANT MANN DEDICATES ELECTRICITY GALLERY TO THE GENERAL PUBLIC ON WORLD ENVIRONMENT DAY



Sh. Bhagwant Mann, Hon'ble Chief Minister, Punjab inaugurated the Electricity Gallery of PGSC virtually on World Environment Day and dedicated it to the general public and students of Punjab. This gallery has been set up with the objective to make people understand how electricity has led to make human life better, various sources of power generation, their merits and demerits, impact on climate and ecosystems and the evolution of electricity since it was discovered Benjamin Franklin in 1752. The Gallery is divided into different sections viz., production, storage & transmission, metering & networking, applications, safety aspects, etc. It is a unique initiative that seeks to educate and inspire the public on the critical issue of sustainable energy and provides information on Star Ratings, their importance and impact on power bills at household and commercial level. Through its engaging exhibits, interactive displays and hands-on activities, the gallery aims to raise awareness about the importance of adopting eco-friendly practices in our daily lives, and to encourage visitors to think deeply about how they consume and use energy. A Quiz station helps visitors to judge their knowledge on the subject.

A brief video of the gallery can be viewed at www.pgsciencecity.org

World Health Day (07.04.2023)

World Health Day is celebrated annually to mark the anniversary of the founding of WHO in 1948. PGSC celebrated the day by organizing an expert talk on this year's theme: "Health For All". Dr. Sumit Malhotra, Professor of Community Medicine, AIIMS, New Delhi, delivered a talk (online) on "Health and Well Being for young people". Dr. Malhotra said, "The pandemic made us realise that overall well-being (physical and mental fitness) is of utmost importance in our life. Health issues, be they mental or physical, should never be ignored and one must take necessary measures right away to cure them. There are several steps that can be taken to prevent health problems. The most common and effective are regular exercise, eating right, and getting a health checkup regularly".

World Heritage Day (18.04.2023)

World Heritage Day is dedicated to promoting the importance of cultural heritage and raising awareness about the need to preserve historical sites and monuments across the globe. A quiz program was organized by PGSC for visitors and students. Prizes were distributed to winners.

DNA Day (25.04.2023)

DNA Day commemorates announcement of discovery of DNA's double helix in 1953 by James Watson & Francis Crick. Maurice Wilkins, Rosalind Franklin and colleagues also published papers in the journal Nature on the structure of DNA. Further in 2003, the day marked the completion of Human Genome Project. PGSC celebrated the day by organizing an expert talk by Dr. Rajinder Kaur, Professor Department of Human Genetics, Punjabi University, Patiala on "Magic of DNA".



Experiments with Candle (03.05.2023)

PGSC organizes regular programmes for school children in its campus as well as at school premises from time to time to explain basic concepts of science. Experiments explaining the concept of surface tension, air pressure, requirement of oxygen for burning, etc. were conducted. 80 students participated.



World Earth Day (22.04.2023 and 24.04.2023)

A 2-day event was organized by Pushpa Gujral Science City at the occasion of World Earth Day on the theme "Invest in our Planet".

Day 1 (22.04.2023):

- Expert talk on "Climate Change and its Impact"
- Activity on making planters from plastic bottles

Day 2 (24.04.2023):

- Expert talk on "Causes, Effects and Mitigation of Deteriorating Mother Earth's Environment"
- Poster making competition
- Science Play competition
- Tree plantation

Dr. Amrik Singh Ahluwalia, Professor & Pro Vice Chancellor, Eternal University, Baru Sahib, Distt. Sirmour, Himachal Pradesh was the Chief Guest. Winners were awarded cash prizes. The program was sponsored by Ministry of Earth Sciences, Govt. of India.



National Technology Day (11.05.2023)

A computer literacy camp was organized at Village Dhapai, Kapurthala. The camp aimed at promoting internet literacy among women in the rural areas in order to contribute to the Digital India Mission. The participants were educated about the various uses of internet, including net banking, mobile app money transfer, creating e-mail accounts, etc. About 50 women participated in the camp.



World Telecommunication and Information Society Day (17.05.2023)

World Telecommunication and Information Society Day is celebrated annually to help raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICT) can bring to societies and economies, as well as of ways to bridge the digital divide. At this occasion, Dr. Arun K. Khosla, Professor, Department of Electronics and Comm. Engg., NIT Jalandhar delivered a talk on "Evolution of Telecommunication and its Future".



Student Innovation Congress (19.05.2023)

A “Student Innovation Congress” was organized by the Innovation Hub, PGSC under *Azadi Ka Amrit Mahotsav*. The students displayed unique innovative projects on topics like, Sustainable Livelihood, Climate Change, Energy, and Sustainable Cities & Communities covering SDG 1, 7, 11 and 13 to showcase their talent and ideas, which could be taken forward to benefit the State. The best ideas were awarded cash prizes, acknowledging the remarkable efforts of students. 100 students from various schools across Punjab and Haryana participated. The event provided an opportunity to school children to hone their observation skills, learn to raise questions and think about solutions, leading to improved understanding in solving societal issues. The best ideas have been shared with NIT which agreed to provide mentorship to the students to further expand their ideas.

winners of Student Innovation Congress

1st Prize: Himat Singh, Govt. Smart Sen. Sec. School Chheharta Amritsar

2nd Prize: Ram Rattan & Arman, Swami Viveka Nanad School Haryana

3rd Prize: Jashan Deep Kaur & Amandeep Kaur, Govt. Sen. Sec. School, Jabbowal, Amritsar.



Arc Welding Competition (30.05.2023)

With the objective to promote skill development among Youth, skills. PGSC organized an arc welding competition for ITI students to test their welding skills. About 50 students from Govt. ITIs from 3 districts of Punjab participated. Cash prizes were awarded.





International Museum Day (18.05.2023)

International Museum Day was celebrated on May 18th by hosting a talk on the “History of Museums in India and abroad” to shed light on the socio-cultural significance of museums, emphasizing their importance to individuals and society as a whole. At this occasion, a virtual tour of Science City was conducted, allowing participants to experience the wonders of this leading Science Centre of the country.

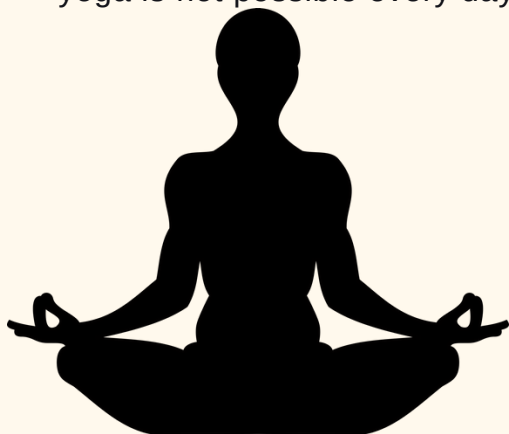


Nature Photography Day (15.06.2023)

To create awareness and motivate general masses about science and nature, an exhibition on “Nature Photography” was organized by PGSC. The objective was to bring the masses closer to mother nature.

International Yoga Day (21.06.2023)

The day was celebrated on the theme “Vasudhaiva Kutumbakam”. >100 participants from nearby rural and urban areas attended the same. The expert was Col Sewa Singh who spoke on the importance of yoga for human health. He also demonstrated “Three Minutes Scientific Yoga” as part of daily routine in case 30 min. yoga is not possible every day.



International Day against Drug Abuse and Illicit Trafficking (26.06.2023)

In order to raise awareness about the devastating effects of drug abuse, every year June 26 is celebrated as the International Day against Drug Abuse and Illicit Trafficking. PGSC celebrated the day on the theme “People first: Stop stigma and discrimination, strengthen prevention” by organizing an Expert talk by Dr. Gagandeep Kaur, District Youth Officer, Nehru Yuva Kendra Sangathan, Kapurthala and a Nukkad Natak by Nehru Yuva Kendra Sangathan.



SUMMER SCIENCE CAMPS 2023

PGSC organizes science and nature camps for students for gainful utilization of time in summer vacations. A nominal fee of Rs 100 is charged for each camp. Following camps were organized in the reporting quarter:

Electronic Circuit Designing (30.05.23 - 31.05.2023)

A 2- day camp on circuit designing was organized wherein Students learnt how to build electronic circuit and make different projects using different electronics components. 10 students participated.



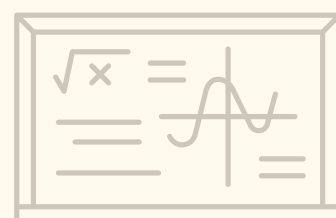
Low cost teaching aids (01.06.2023-02.06.2023 & 07.06.2023)

Three (3) camps on Low cost teaching aids were organized by PGSC. Various topics like, Bernoulli's principle, Inertia, Force, Boyles law, surface tension, atmospheric pressure, mirror formula refraction, Total internal reflection, magnetism and electricity, sound, properties of air, light, toys, oxygen needs for burning, Wave properties, etc. were explained to the students through informal teaching and fun filled activities. The participants were also explained basic concepts of science behind the working of exhibits installed at Science City. Total 46 students participated in all camps.



Hands on activities (Mathematics) (06.06.2023)

A mathematics camp on symmetry in nature, plants, insects, etc was organized for students to build their observation skills and help them realize how mathematics is prevalent in nature. Children also learnt the concept of addition and subtraction on the number line and locating their positions on the surface by drawing x and y coordinates.



Science Toy Making (01.06.2023 - 02.06.2023)

A 2-day camp was organized wherein the students learnt basic science concepts like gravity, force, mass, reflection, Bernoulli principle. During the session, students made self balancing objects of different shapes and floating ping pong ball. 23 students participated in the camp.

Fun with Sensors (07.06.2023)

In this camp, students learnt about various sensors like IR and Ultrasonic, their working and its interfacing with controller. 21 students participated in the camp.



Model Rocketry (23.06.2023)

A camp on Model Rocketry was organized wherein students learnt basic rocket science and its principles. The students also built their own rockets with paper.



Nature Camps (17.06.2023, 25.06.2023 & 29.06.2023)

To connect children to nature, three (3) Nature Camps (one day each) were organized by PGSC. Following activities were taken up in each camp:

- Awareness Talk (Biodiversity, Climate Change, Environmental pollution, Desertification, etc.)
- Biodiversity games for understanding sustainability in a fun way.
- Nature walk: Visit to herbal/medicinal garden, sewage treatment plant and rain water harvesting - Retention Pond, Bird gallery, etc
- Identification of leaves, Phyllotaxy, identification and importance of medicinal plants.



Total 22 students participated in the Nature Camps.



From the Innovation Hub

Workshop on Robotic Programming (11.04.2023)

The workshop was organized where students learnt coding technique to operate and program the robot fitted with ultra sonic sensor. 16 students participated in the workshop.

Workshop on Electronic Sensors (19.05.2023)

The workshop was organized involving participation of 17 students. Students learnt working of various sensors, designed circuits based on LDR and IR sensors and made automatic LED light controller circuit.



Workshop on Introduction to Micro Controller (24.04.2023)

In this workshop, students learnt working of micro controllers and their interfacing with sensors and motors. 31 students attended the workshop.

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 rural population and create scientific temper in the society. During the reporting quarter, the Exhibition Bus visited 11 private schools on chargeable basis covering 2626 students. The bus visited to the following schools: Pioneer Convent School, Malerkotla; Tara Convent School, Malerkotla ; Shri Guru Gobind Public School, Ropar ; Himalayan Public School, Ropar; Sarvhitkari Vidya Mandir, Hoshiarpur; Sai Dass School, Jalandhar; Orient Public School, Hoshiarpur; Preeta Lee Lesson School, Kapurthala ; Guru Nanak Mission School, Bhogpur, Jalandhar; Galaxy Global School, Phagwara.



Night Sky Watching

During the reporting quarter, Night Sky Watching Night Sky watching activity was organized for 559 students from Kendriya Vidyalaya, Jalandhar and Swami Sant Dass School, Jalandhar

SD-ASK CLUB ACTIVITIES

SD-ASK (Sustainable Development-Attitude, Skills and Knowledge) program of PGSC focuses on making children aware of citizen's role in achieving Sustainable Development, promoting knowledge dissemination in the area and moulding their attitudes through activities, demonstrations, competitions, film shows and expert talks. During the reporting quarter following events/activities were organized under this programme:

International Day for Biological Diversity (22.05.2023)

The day was celebrated in collaboration with Punjab Biodiversity Board. Following activities were organized:

- Expert Talk by Dr Renu Bhardwaj, Professor Department of Botanical and Environmental Sciences, GNDU on the theme "From Agreement to Action-Build Back Biodiversity".
- Competitions: Theme- Build Back Biodiversity
 - 'Poster making'
 - 'Face Tattoo making'

The objective was to make students understand the importance of Biodiversity in a fun way

About 70 participants attended the event. The event was sponsored by National Biodiversity Authority, Gol.

Winners of Poster making Competition

- 1st Prize: Shreya, CT Public School
- 2nd Prize: Lavina, Bawa Lalvani Public School
- 3rd Prize: Doaba Model Senior Sec. School

Winners of Face Tattoo making competition

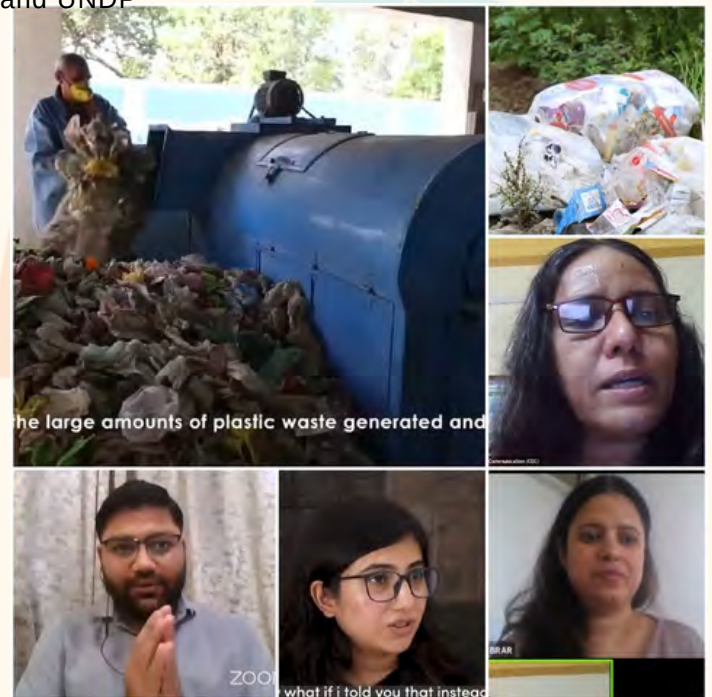
- 1st Prize: Tania & Tanmeet Kaur, Kamla Nehru Public School
- 2nd Prize: Tushti & Yangdol, CT Public School
- 3rd Prize: Rajesh & Sandeep, Mandi Hardiganj School

World Environment Day (05.06.2023)

A Film show was organized on the theme #BeatPlasticPollution followed by discussion on focus areas of various films to subtly nudge the participants on the role of individuals in waste segregation, reuse and recycling at household level. The program was organized in collaboration with Centre for Environment Communication, Delhi. The discussion was moderated by Ms. Alka Tomar, President CEC.

Following films were screened:

- Lets do better to #BeatPlasticPollution this World Environment Day 2023| UNEP WED 2023
- Tik Tik Plastic - Beat Plastic Pollution| Shaan | Bhamla Foundation
- A short film to end plastic pollution in South-East Asia| MeshMinds and Studio Birthplace
- Could a fuel generated from plastic waste replace fossil fuels and meet energy needs? | Eco India| Brett Chamberlin, Michael O'Heaney and Ruben DeLuna
- The Story of Plastic| Eco India
- Plastic Waste Management Project| Sarthak Indore and UNDP



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

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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