



## Report: Celebration of World Space Week

4<sup>th</sup>, October – 10<sup>th</sup>, October - 2023



The Department of Physics, Centre of Excellence, Government College, Sanjauli, on the eve of World Space Week (4<sup>th</sup> October- 10<sup>th</sup> October), celebrated a program filled with cultural, competitive and academic endeavors. The venue was star-studded and beautifully decorated with the theme of “Space and Entrepreneurship,” also the theme for this year’s World Space Week.

The celebration began with the day -1 on October 4<sup>th</sup>, 2023, by organizing a poster making competition. Themes for poster making were (a) The Beauty of the Night Sky: Stargazing and Astronomy, (b) Journey to the Stars: Exploring Deep Space, (c) Mars: The Red Planet- Our Next Frontier, (d) The Solar System’s Hidden Gems: Moons and Asteroids, (e) Galaxies Far, Far Away: A Tour of the Universe, (f) Rocket Science: Propelling Our Dreams into Space, (g) Space Art: Imagining the Cosmos through Creativity, (h) Space Travel: from Sci-fi to Reality, (i) Space Sustainability: Preserving the Celestial Environment. Six students participated in the poster making competition- four from first year, (1) Aryan Singh, (2) Sneha, (3) Shaine Syal, and (4) Muskan; two from second year, (1) Gagan, and (2) Kanchan; and two entries were from the final year, (1) Aprajita Chauhan, and (2) Priti and Sanjana.





**Two students, Sahil and Meenakshi Thakur demonstrated two activities on rocket propulsion and craters on the moon respectively. Three models themed on sustainability for a better future were displayed. These models depicted alternative energy sources in place for fossil fuels.**

The second day's celebration included the power point presentation competition on the various given theme. There were six participants to the competition- one fresher, Amit; three sophomores- Vibhuti, Neha, and Dharmender; and two seniors- K Pragati Nargis, and Prince. Three best presentations were to be chosen by rating them out of five in four parameters- clarity of idea, quality of research, elegance, and confidence.

First came upon the podium Amit from first year. He took with him us to explore the solar system. He explained about celestial bodies in the solar system- stars, sun, asteroids, comets, meteoroids and meteors. He elucidated with passion the formation of stars and black holes. He revealed the formation of sun and facts on it. He enlightened all on the formation of asteroid belt, comets- their rarity; and meteors, meteoroids.



Next came Vibhuti, a sophomore who presented with us her research on Black Holes: “The Cosmic Mysteries Unveiled.” She put in plain words what a black hole is and how it is formed. The anatomy of black holes was well explained by her. He tried answering some of the most frequently asked questions on black holes. He rationalized how Earth cannot be destroyed by a black hole, vindicated how Sun can never ever turn into a black hole and if there is a hypothetical situation how it poses no danger to us. She clarified how despite being black, the presence of black hole is known to the scientists. Finally, she gave details on time dilation, and black holes as the ultimate energy factories. Concluding, she stated some obscure facts on black holes.

Now, Neha, a second year student was called upon the stage with her presentation on the story behind invention on space telescopes. She began with informing all of what a space telescope is, and their types- Hubble Space Telescope, Spitzer Space Telescope, James Webb Space Telescope,

and Chandra's X-ray Observatory. She enlightened all on the launch, objective, end, missions, ongoing missions (if any) of these space telescopes with beautiful pictures and well-depicted diagrams.

Dharmendra, a sophomore, came to the stage and shared with us the findings on Black holes. He explained how these are the one of the most mysterious objects of the universe. He illuminated what are these mysteries and how they come into being. The role of S. Chandrashekhar was shared. The concept of singularity and facts about Event Horizon were described. He put in simple words the concept of general theory of relativity- bending of space time; and time dilation. He clarified what would happen if one were to fall into a black hole.

K Pragati Nargis, a third year student, was called to the stage to share with all the search for extraterrestrial life in our solar system. She started with explaining which zones scientists consider habitable. She shared how the search for alien life in our solar system especially in Mars and Venus is of interest to astrobiologists. The findings on Europa, Ganymede and Callisto, Enceladus, and Titan were expounded. She talked about SETI, and on concluding note described the Breakthrough Listen Project.

Last came Prince, a senior student who shared with us his study on how the secrets of universe can be unraveled by space telescopes. The journey of telescope since ancient times till now was well shared. The contribution of Galileo Galilei was revealed. He explained the need for space telescopes in cosmic exploration. He illuminated how space telescopes can overcome light pollution. He gave details on the famous and fascinating discoveries by Hubble space telescope, Space Telescope, Chandra's X-ray Observatory, Kepler Space Telescope, and James Webb Space Telescope.

Due to the upcoming NAAC peer team visit, we were directed to conclude the celebration on October, 6, 2023 instead of 10<sup>th</sup>, October, 2023.

**The concluding function of the celebration began on October, 6, 2023 with the arrival of our guest of honour, Dr. Bharti Bhagra, Principal GC Sanjauli, and other staff members at 1:30pm. The members of the jury were Dr. Girish Kapoor, Dr. Pooja Dulta, and Dr. Vikas Nathan.**

The hosts, Shreeniwas and Aprajita, welcomed everyone and invited the chief guest to light the lamp while reciting the Shlokas for Goddess Saraswati. The first performance was Ganesh

Vandana, by second-year girls. The classical dance, aimed to accolade Lord Ganesh, was magnificent and did not blemish at all the sacredness of the ceremony.



Our chief guest was welcomed by pinning of the rosette by Dr. Kirti Singha. She was also presented with a flower pot as a token of regard by Mr. Anuj Kumar, HOD Physics, Sakshi and Dhruv members of the Undergraduate Physics Students' Society (UPSS), felicitated our other guests with a badge made by students on which the image of Chandryan-3 was made.

After that, guests and the judges, Dr. Girish Kapoor, Dr. Vikas Nathan, and Dr. Pooja Dulta visited the art gallery and stall exhibitions to view the posters, activities, and models and to select the top three of all the submitted posters.

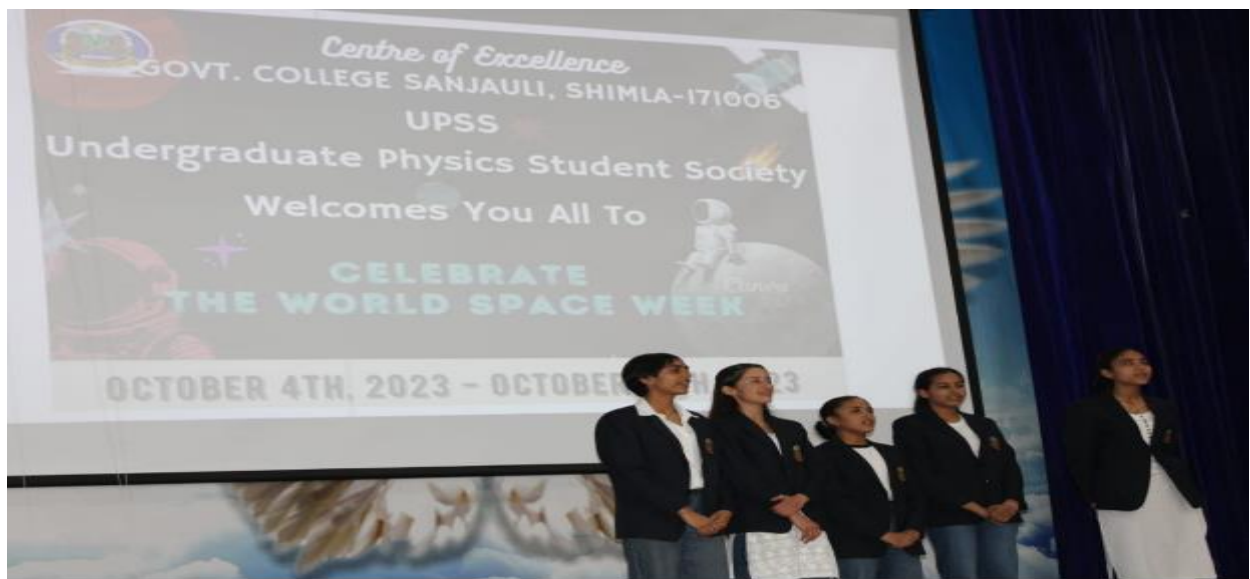


**Vijay Kumar, Vice-President, UPSS, formally welcomed our guests.** He emphasized how world space week as an occasion resonated deeply with academic community by allowing exploration of the wonders of the universe, inspiring both curiosity and wonder. He thanked the guests for giving the society an opportunity to provide hospitality. He assured that the function was going to be an enlightening and inspiring celebration of the World Space Week.

Uday Singh, a senior student, introduced the theme to the guests, audience and judges. He gave an account for the history behind the celebration of World Space Week by the nations. He answered as to why this program be celebrated in this institute. He inspired all the students to think of venturing into the field of space research while looking for a career by telling all, “our college is a hub of innovation, it holds abode to future scientists, researchers and astrophysicists.” He said, “Space extends beyond the confines of Science, expanding into humanities too, in history, geography and more.” He concluded his speech by reminding us all that we are not in universe, we are the universe.

The hosts, Pranay and Isha, called for our next program of the day, **“Demonstration of Chandrayaan-3”** by students of the Department of Physics. This was the main attraction of the show. They showed the audience through a model the launching, stages and functions of Chandrayaan-3. It was a spectacular performance that filled the minds of all present with awe, wonder and curiosity. The demonstration was so well done, even laity could understand the concepts. They ended their performance by stating facts about the rover and lander; and telling all how India created history.





Senior girls were called upon the stage, next, with their Bhangra. The dance was vivacious and full of vitality. They stole the show with their wonderful piece.







**Our hosts Vijay and Vibhuti, now called Uday and Vijay, students physics' department, to conduct the quiz.** We had six teams each comprising two members for the competition. These were- (a) Stellar Scholars- Vanita and Kanchan, (b) The Astrobrains- Shalini and Gagan, (c) Cosmic Crusaders- Ayush and Dharmesh, (d) Nebula Navigators- Shubham and Nishant, (e) Meteorite Minds- Prikshit and Prakriti, (f) Supernova Scholars- Ronit and Suresh. The competition had held five rounds- (1) Glory of Indian Space Journey, (2) ISRO Missions, (3) MCQs, (4) Visual Round, and (5) Rapid fire. The completion was engaging and the questions were bright. All teams well played the game. The competition was intense and audience held their breaths with the intensity of the competition. Team F, Supernova Scholars won with spectacular glory. Team B, The Astrobeans were first runner-ups and Team E, Meteorite Minds were second runner-ups. Audience also participated with fervor and passion when the questions were passed on to them.

After the quiz, two girls Vibhooti and Aprajita mesmerized all with their melodious songs. Isha, a senior student, also sang a wondrous melody drawing all to the scene of her songs with her song.



Principal ma'am, Dr. Bharti Bhagra, our chief guest of the day gave her speech. She congratulated all, in particular the Department of Physics and the UPSS, for the successful completion of the program. She mentioned her hope to see such competitiveness and team-work again in the future functions. She believed with proper guidance and support the students of today can be the future researchers of tomorrow, venturing deep into the space. She gave presents to the jury, and started the prize distribution ceremony for the participants. Aprajita, Priti and Sanjana, and Vishaka bagged the first, second and third places for the poster making competition. Dharmendra, Vibhuti, and Amit won the presentations as first, first runner-up and second runner-up respectively. The champions were presented with a certificate and a memento. Prizes were presented to winners of the quiz competition and to those who demonstrated the Chandrayaan-3.





The last program was Pahari nati by the students of the department of physics. Their phenomenal dance brought with them all to the mountains and reverence of the Himalayas. Their vibrant and melodious performance left all astonished.





**The function ended with the solemnness and sanctity of our National Anthem.**

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