



Sunbeam Women's College Varuna

Towards Women Empowerment ...

Post Graduate College

(Affiliated to Mahatma Gandhi Kashi Vidyapith, Varanasi)

(Accredited by NAAC)

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Report : Three Days Student Seminar on "Contemporary & Interdisciplinary Topics Defining Science & Research"

Date : 22 to 24 August , 2024

Venue : Melody

The three-day Student Seminar on "Contemporary & Interdisciplinary Topics Defining Science & Research," organized by the Department of Science in collaboration with Udai Pratap Autonomous College, provided an excellent platform for students to engage with various cutting-edge scientific disciplines. Held from January 18 to January 20, 2025, the seminar aimed at fostering academic excellence and enriching students' scientific knowledge, preparing them for future research and career pursuits. The event saw a series of lectures, discussions, and competitions, promoting interdisciplinary learning across multiple fields.

Day 1: Inaugural Ceremony and Interdisciplinary Lectures

The seminar commenced with a formal Inaugural Ceremony. Prof. Chandana Halder, Former Director of the Institute of Science, BHU, graced the event as the Chief Guest. She delivered an insightful keynote lecture on the Pineal Gland, delving into its biological functions and importance in human health.

Following the keynote, Prof. Jagat Kumar Roy (Department of Zoology, BHU) presented a lecture on Cervical Cancer, highlighting recent advancements in research, prevention strategies, and early diagnosis techniques. The post-lunch session featured Prof. Manoj P. Tripathi (Department of Mathematics, Uday Pratap College), who discussed the significance of Vedic Mathematics and its applications in mathematical modeling, bringing an interdisciplinary approach to the topic. The day concluded with a lecture on NanoMaterials by Dr. Mandakini Gupta (Department of Chemistry, SWCV), exploring the emerging field of nanotechnology and its potential to revolutionize various industries, from medicine to energy.

Day 2: Biological Sciences and Emerging Technologies

The second day of the seminar commenced with Dr. Soumik Goswami (Department of Zoology, Sunbeam Women's College, Varuna) delivering a lecture on Biological Rhythms, providing a comprehensive understanding of how biological systems synchronize with environmental cues. Prof. Tumul Singh, Head of the Department of Zoology at Udai Pratap College, followed with an in-depth session on Basic Immunology, shedding light on the functioning of the immune system and its relevance in medical research.

Post-lunch, Dr. Ragini Tripathi (HOD, Faculty of Science, Sunbeam Women's College, Varuna) discussed the significance of Semiconductors and Nanotechnology, touching upon their pivotal role in modern technological advancements.

The day also featured a Student Poster Competition, where participants presented their research findings on various scientific topics. The competition was judged by Dr. Ashwini Kumar Nigam (Department of Zoology, Udai Pratap College) and Dr. Rishi Sahu (Department of Botany, Sunbeam Women's College, Varuna). The event encouraged students to showcase their innovative ideas and research skills.

Day 3: Mathematics, Artificial Intelligence, and Space Research

On the final day, Dr. Anju Rai (Department of Mathematics, SWCV) delivered a presentation on the Utilization of Mathematics in Daily Lives, emphasizing the practical applications of mathematical concepts in everyday activities and various industries.

This was followed by a dynamic Student Panel Discussion on the topic "Artificial Intelligence: Impact on Society & Future Prospects." The discussion was judged by Dr. B.K. Sinha (Department of Zoology, Udaipur Pratap College) and Dr. Joy N. Samuel (Department of Zoology, SWCV). The panelists explored the benefits, challenges, and ethical considerations surrounding AI, offering thought-provoking perspectives on its potential to shape the future of humanity.

In celebration of National Space Day, Prof. Abhay Singh (Department of Physics, BHU) delivered an enlightening lecture on India's Development in Space Research, highlighting the country's progress in space exploration, satellite technology, and future space missions.

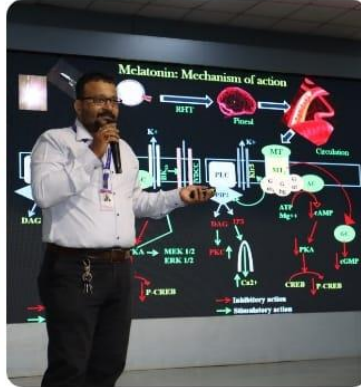
The seminar culminated with a Valedictory Function, once again graced by Prof. Chandana Halder, who commended the students for their active participation and engagement throughout the event. She emphasized the importance of interdisciplinary collaboration in shaping the future of science and research.

Conclusion:

The three-day seminar was a resounding success, providing students with a unique opportunity to explore a wide array of contemporary and interdisciplinary scientific topics. Through lectures, panel discussions, and competitions, the seminar offered a dynamic platform for intellectual exchange, fostering curiosity and encouraging future careers in science and research.

This seminar was a remarkable initiative by Uday Pratap Autonomous College, and the Department of Science, contributing to the overall academic and professional growth of the students involved.







Payloads

Lander Payloads		Rover Payloads	
<p>RAMBHA-LP Lander Mission Probe To measure the near surface plasma ions and electron density and its changes with time.</p>	<p>ChaSTE Chandra's Surface Thermophysical Experiment To carry out the measurements of thermal properties of lunar surface near polar region.</p>	<p>APXS Alpha Particle X-Ray Spectrometer To derive the chemical composition and infer mineralogical composition to further enhance our understanding of lunar surface.</p>	<p>LIBS Laser Induced Breakdown Spectroscopy To determine the elemental composition (Mg, Al, Si, Fe, Ca, Ti, Fe) of lunar soil and rocks around the lunar landing site.</p>
		<p>ILSA Instrument for Lunar Seismic Activity To measure seismicity around the landing site and delineating the structure of the lunar crust and mantle.</p>	
		<p>SHAPE Spectro-polarimetry of Habitable Planet Earth An experimental payload to study the spectro-polarimetric signatures of the habitable planet Earth in the near-infrared (NIR) wavelength (1.1-1.7 μm).</p>	

