Miranda House
UNIVERSITY OF DELHI

Department of Physics: Annual Report (2024-2025)

Vidyut, The Physics Society

Vidyut, the Physics Society of Miranda House, is a dynamic platform for physics enthusiasts that fosters academic curiosity and collaborative learning. It organizes lectures, workshops, competitions, fests, and outreach programs to bridge classroom knowledge with real-world applications, while also promoting research culture and creativity among students. Through interactive events Vidyut cultivates a vibrant community where members can explore diverse facets of physics, develop skills, and connect with peers and experts in the field.

Office Bearers:

- President-Medha
- Vice-President-Saswati Borphukan
- General Secretary-Ojaswini Upmanyu
- Joint Secretary-Anushkaa Jain
- Treasurer-Sonia Das

Staff Advisors:

- Prof. Monika Tomar
- Dr. Bilasini Devi Naorem
- Dr. Nirmala Saini
- Dr. Richa Kundu
- Ms. Zarina Banoo
- Dr. Soumya Prakash Dhal

Teacher-Incharge:

Ms. Sumana Devi

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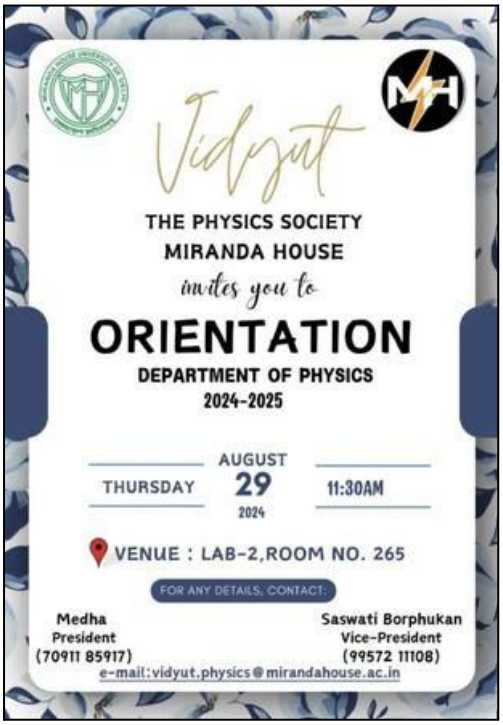
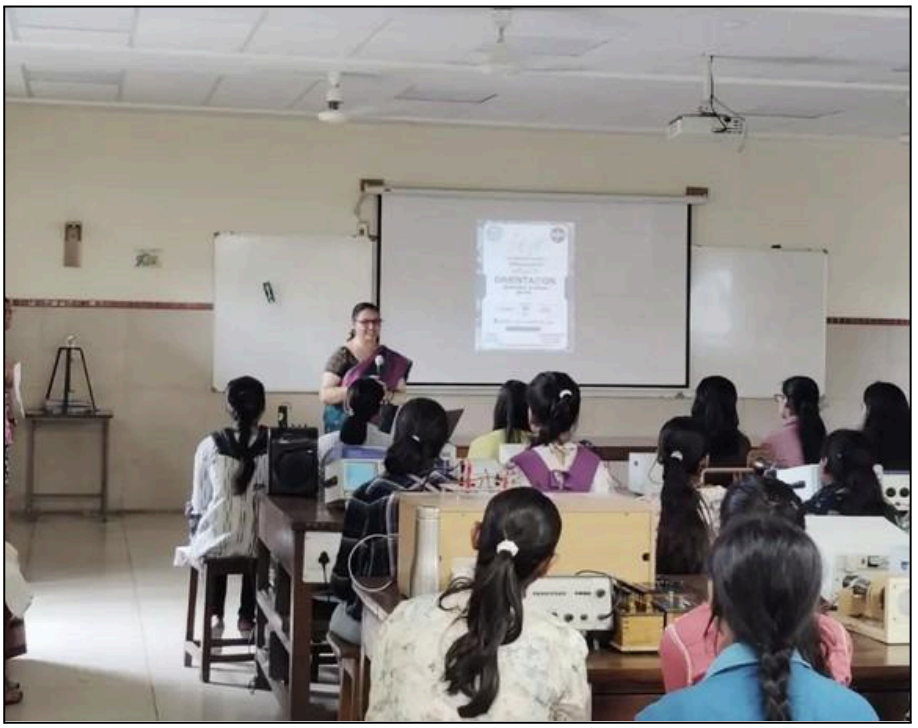
Orientation for batch 2024-2028





The Physics Society of Miranda House, Vidyut, hosted a warm and welcoming orientation for the incoming 2024-2028 batch of students. Dr. Rashmi Rakshit, Associate Professor, inaugurated the event with an inspiring speech, establishing a positive and encouraging tone for the journey ahead. The students were warmly and graciously welcomed into Vidyut, the Physics Society, by its President, Medha.

Professor Monika Tomar shared valuable insights into the DSKC Innovation Centre and offered guidance on research opportunities, while Dr. Abha Dev Habib, Associate Professor, delivered a thorough overview of the Four-Year Undergraduate Program (FYUP).

Medha,Saswati, Ojaswini, and Anushka, the office bearers, took the time to provide a detailed explanation of the Physics Society's activities, ensuring that everyone understood what to anticipate.

The orientation wrapped up with a tour of Miranda House, helping the freshmen get familiar with their new surroundings and making sure they start their college life on the right foot.

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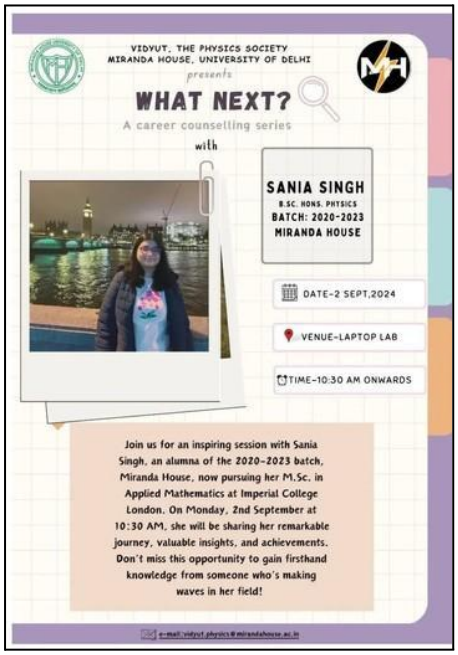
What Next?

A Career Counselling Series



The Physics Society of Miranda House, organized an insightful and interactive session with its alumna, Sania Singh, from the graduating batch of 2020-2023. The session was aimed at providing valuable career guidance to the students of the first, second, and third years.

Sania Singh, a distinguished graduate of the Physics department, shared her experiences and insights about pursuing further studies abroad, which proved to be an enriching session for all attendees. The event provided an excellent opportunity for students to gain in-depth knowledge regarding various career paths and options available to them post their undergraduate studies.

During the session, Sania discussed the steps involved in planning for higher education abroad, such as the application process, required exams, scholarships, and choosing the right university based on one’s career interests. Additionally, she shared her personal journey and the challenges she faced, offering practical advice to students on how to navigate the complexities of studying overseas.

Students actively participated by asking questions and clarifying doubts, making the session engaging and informative. Sania’s session helped to broaden the students' perspectives on international education and the career opportunities it can provide.

Overall, the interactive session was a huge success, leaving students more informed and motivated to explore diverse career avenues, particularly in international education.

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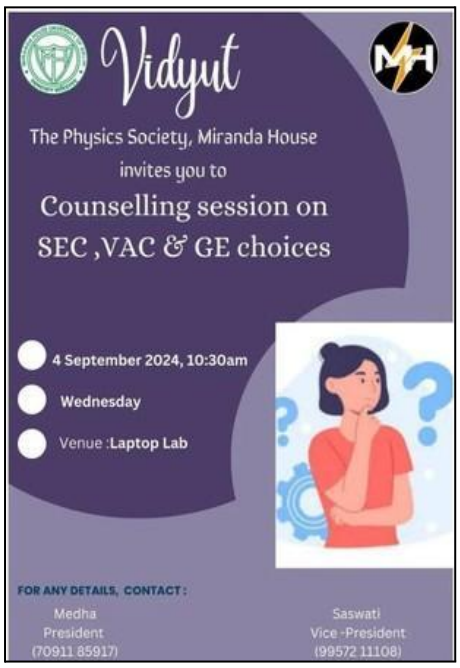
A Counselling Session for SEC, VAC and GE



Vidyut, the official Physics Society of Miranda House, organized a Counselling Session on SEC (Skill Enhancement Courses), VAC (Value-Added Courses), and GE (Generic Elective) choices for students, with a particular focus on guiding first-year students through their course selection process. The session aimed to provide clarity on the structure and objectives of each course category, enabling students to make informed decisions for the upcoming semester in alignment with their academic and career aspirations.

For first-year students, the available VAC courses included Vedic Mathematics, Digital Empowerment, etc., while SEC options comprised IT Skills and Data Analytics, Basic IT Tools, etc. Faculty and society members elaborated on the content, skill outcomes, and relevance of each course, helping students understand how these choices could contribute to both academic growth and employability.

A special emphasis was placed on the selection of Mathematics as a Generic Elective, with students being advised that a background in Mathematics is essential for eligibility to pursue a master's degree in Physics.

The session concluded with an interactive question-and-answer segment, where doubts regarding course combinations, workload management, and future academic pathways were addressed. Students appreciated the initiative, noting that the session reduced confusion, clarified eligibility criteria, and provided strategic advice for long-term academic planning.

Teacher's Day Celebration

On the occasion of Teachers' Day, Vidyut, the Physics Society of Miranda House, celebrated the invaluable contributions of our esteemed professors who ignite curiosity, foster creativity, and nurture innovation. The event was a heartfelt tribute to the dedication and commitment of the faculty members who play a pivotal role in shaping the academic and personal growth of students.

The celebration began with an expression of gratitude from the students, acknowledging the unwavering support and mentorship provided by the Physics faculty. A special moment of the event was the cake- cutting ceremony, where teachers came together to celebrate the joyous occasion.

Adding to the significance of the day, students shared personal anecdotes and experiences, highlighting how their professors have inspired them in their academic journeys.
The event concluded with students presenting their handmade cards to the teachers as a token of gratitude. The celebration was a true testament to the strong bond between students and teachers at Miranda House, making the day a memorable one for all.

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Workshop on From Circuit to System: Understanding PC Hardware

Uncover the Secrets of Your Computer: From Circuit to System

Vidyut – The Physics Society of Miranda House organized an engaging workshop titled "From Circuit to System: Understanding PC Hardware" on September 9, 2024 . The session was conducted by Dr. Ambuja Bhushan Jaiswal, Assistant Professor, Department of Physics, Miranda House.

Dr. Jaiswal provided valuable insights into the transition from basic electronic circuits to complete computer systems. He explained the role of key hardware components, including the motherboard, processor, memory units, and storage devices, helping students understand their functions and interconnections. Through a live demonstration, participants observed the internal structure of a computer and learned essential troubleshooting techniques.

The interactive session allowed students to explore concepts like system performance, hardware compatibility, and future advancements in computing. The workshop proved to be an enriching experience, equipping attendees with a deeper understanding of PC hardware and its real- world applications.

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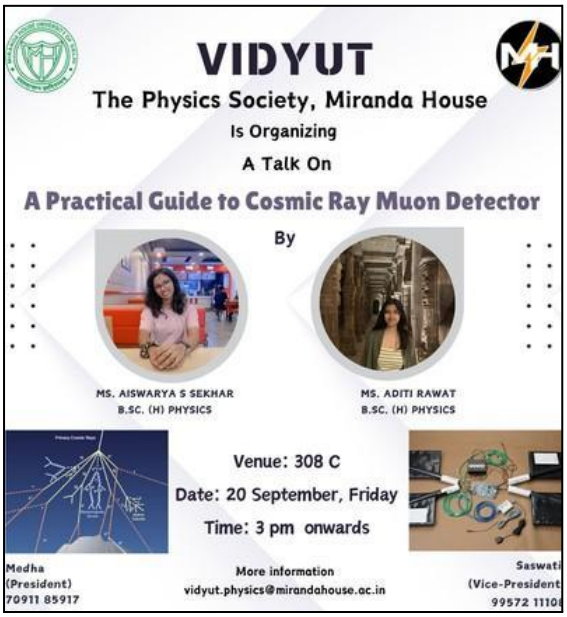
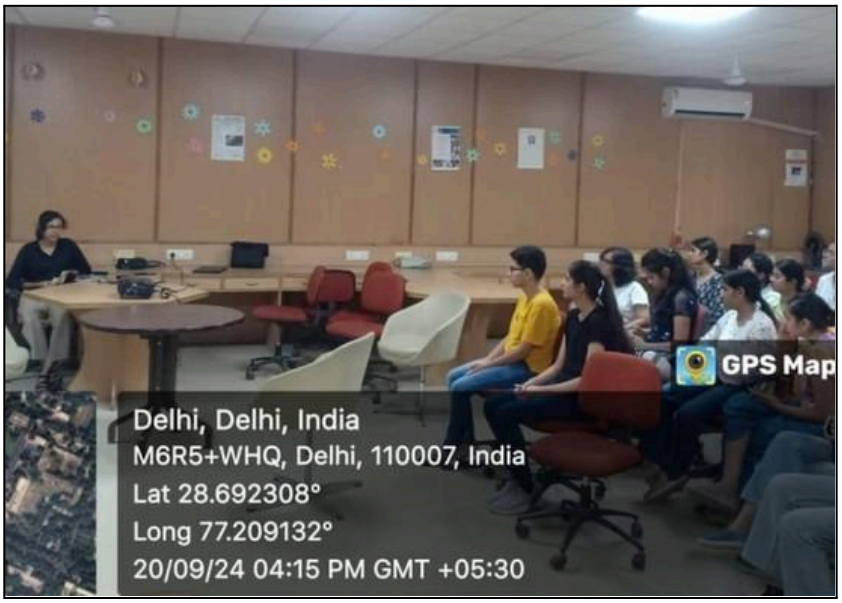
A Talk on “A Practical Guide to Cosmic Ray Muon Detector”





Vidyut – The Physics Society of Miranda House organized an informative talk on "A Practical Guide to Cosmic Ray Muon Detector," providing students with a deeper understanding of cosmic ray muons and their detection. The session covered various aspects, including the Quarknet Project, the origin, properties, and components of cosmic ray muon detectors, as well as their significance in scientific research.

The talk was conducted by Ms. Aiswarya S Sekhar and Ms. Aditi Rawat, third-year B.Sc (H) Physics students at Miranda House. They explained the fundamental concepts of cosmic rays, their origin, uses, and the process of detection. Additionally, they provided insights into the Quarknet Project, which focuses on detecting muons and understanding their behavior.

The session was highly engaging and informative, sparking curiosity among students about particle physics and cosmic ray research. It served as a valuable opportunity for attendees to expand their knowledge of modern experimental physics and its real-world applications

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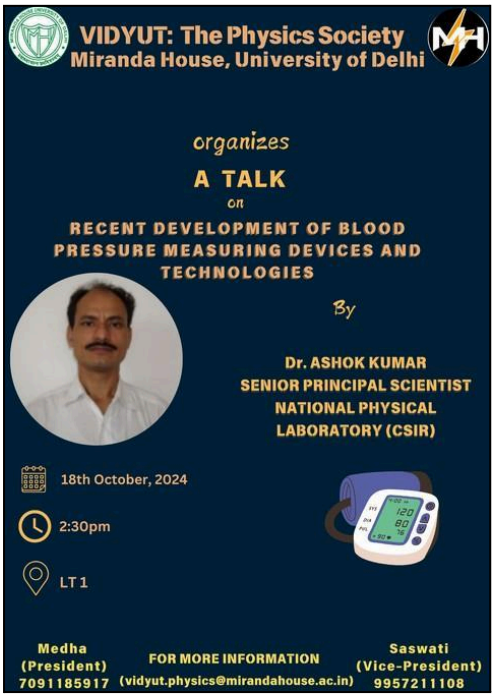
A Talk on "Recent Developments in Blood Pressure Measuring Devices and Technologies"

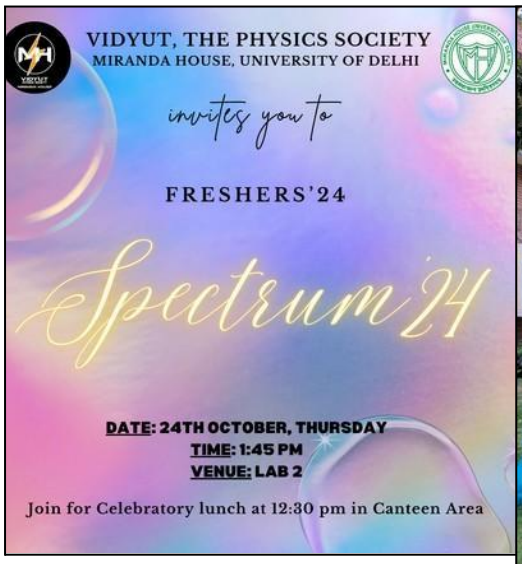


The Physics Society of Miranda House, Vidyut, organized an insightful talk on "Recent Developments in Blood Pressure Measuring Devices and Technologies" by Dr. Ashok Kumar, Senior Principal Scientist at the National Physical Laboratory. The event provided a comprehensive understanding of the advancements in blood pressure measurement and the challenges associated with it.

The session commenced with the felicitation of Dr. Ashok Kumar by Prof. Monika Tomar. During his talk, Dr. Kumar delved into the history of blood pressure measurement, tracing the origins of the concept and discussing the potential systematic errors that could lead to significant issues in medical diagnostics. He also provided insights into the ongoing research and advancements in this field, highlighting the latest technological developments aimed at improving accuracy and reliability.

The talk was attended by 50 students, faculty members of the Physics Department, and office bearers. It was a highly informative and enriching session, offering valuable knowledge on the intersection of physics and medical technology. The event concluded with an engaging discussion, where participants had the opportunity to interact with Dr. Kumar and gain deeper insights into the topic.

Fresher's Party: Spectrum 2k24



Spectrum 2k24 , held on October 24th , was an extraordinary event that celebrated the diverse personalities and talents of students. The day was dedicated to showcasing the multidimensional nature of each individual, proving that everyone has something unique to offer beyond the confines of their academic disciplines. Students from various backgrounds and fields of study came together to demonstrate their hidden talents, turning the spotlight on their creativity, artistry, and passion. Throughout the day, the event featured a wide range of activities and performances, from live music and dance to visual art and theater. Each student took the stage or displayed their work with confidence, demonstrating how academic rigor and artistic expression could coexist harmoniously. The energy was electric, as students cheered for each other' s performances, fostering a sense of community and mutual respect.

Spectrum 2k24 not only celebrated talent and creativity but also emphasized the importance of embracing both sides of oneself— intellectual and artistic. It was a reminder that true Personal growth comes from balancing all aspects of life, from the serious to the playful, and that every individual has the power to redefine what it means to be multifaceted.

Spectrum 2k24 has concluded, showcasing a day dedicated to redefining personalities. Each student demonstrated their unique talents, proving that even physics students can balance both lab work and enjoyment. The event truly highlighted this duality.

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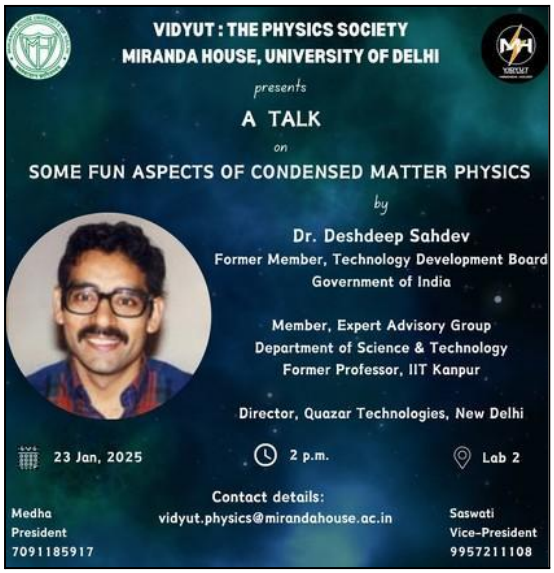
A Talk on “Some Fun Aspects of Condensed Matter Physics”



Dr. Deshdeep Sahdev delivered an enlightening talk on the fascinating world of Condensed Matter Physics, leaving attendees inspired and in awe. The session, marked by Dr. Sahdev’ s passion for research and innovation, focused on his groundbreaking work in crafting internationally competitive instruments and unraveling complex scientific concepts.Dr. Sahdev’ s ability to bridge the gap between intricate theoretical concepts and their real- world applications was a standout feature of the session. His engaging presentation not only made advanced ideas accessible but also sparked a deeper curiosity in the minds of students and researchers alike.

Throughout the talk, Dr. Sahdev’ s enthusiasm was palpable, as he shared insights into the latest developments in condensed matter research. His emphasis on the importance of innovation in the creation of scientific instruments that push the boundaries of modern physics resonated strongly with the audience.The event also fostered an interactive environment, encouraging students to ask questions and engage in discussions about the future of condensed matter research.

The session was a perfect blend of cutting- edge science and hands- on practicality, motivating everyone present to think beyond the confines of conventional science and explore new frontiers.Dr. Sahdev’ s talk was not just a lecture, but an inspiring call to action for all aspiring scientists to challenge existing paradigms and drive innovation. It was a session that will undoubtedly remain a highlight for all those fortunate enough to attend.

In conclusion, the insightful session left the audience with a renewed sense of wonder and a deeper understanding of the pivotal role condensed matter physics plays in shaping the future of science. Grateful for the experience, attendees left the event eager to push the boundaries of their own scientific explorations.

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A TALK ON "PHOTONIC REVOLUTION"

Vidyut, the Physics society, successfully organized an enlightening talk on the topic 'Photonic Revolution', delivered by the esteemed Dr. Anurag Sharma, a renowned professor from IIT. The event witnessed enthusiastic participation from students and faculty members, all eager to gain insights into the transformative role of photonics in modern science and technology.

Dr. Anurag Sharma commenced his talk by introducing the concept of photonics, emphasizing its significance as the study of light- based technologies. He elaborated on how photonics is revolutionizing various fields such as telecommunications, medical diagnostics, quantum computing, and optical data processing.

He explained the shift from electronics to photonics, highlighting the advantages of photonic circuits over conventional electronic circuits. The professor provided intriguing insights into fiber optics, lasers, photonic crystals, and their applications in high- speed data transmission

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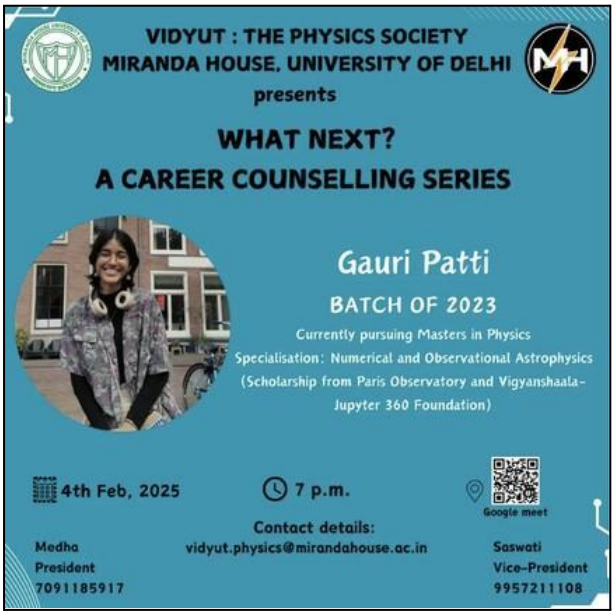
WHAT NEXT ?

A CAREER COUNSELING SESSION



Vidyut, the Physics Society, organized an insightful career counseling session featuring our esteemed senior, Gauri Patti, who is currently pursuing her Master' s in Physics from abroad. The session aimed to guide students on opportunities for higher education in physics beyond India. Gauri shared valuable insights on various aspects, including the process of applying to foreign universities, essential requirements, and strategies for securing admissions. She emphasized the importance of maintaining a strong CGPA, as many top institutions have minimum academic thresholds. Additionally, she provided detailed information on expenses and financial planning, explaining tuition fees, living costs, and ways to manage them efficiently. A crucial part of her discussion focused on scholarships and funding opportunities, where she guided students on securing grants, assistantships, and financial aid to support their studies. One of the key highlights of the session was her experience with LaTeX, a powerful document preparation system widely used in scientific writing. She explained how mastering LaTeX significantly helped her in research paper writing, thesis preparation, and professional documentation. Furthermore, she introduced students to the infinite opportunities available in physics abroad, ranging from cutting- edge research to industry applications and interdisciplinary fields. The session was highly engaging, with students actively participating in discussions and clarifying their doubts. Gauri' s insights and personal experiences provided a clear roadmap for aspiring students planning to study physics abroad. Vidyut – The Physics Society extends heartfelt gratitude to Gauri Patti for her time and effort in guiding students towards a bright academic future.

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A Talk on “The origin of matter and structure in the Universe”

Vidyut , **the Physics Society of Miranda House ,** recently organized a lecture on " **The Origin of Matter and Structure in the Universe"** . The event featured **Dr. Swagat Mishra,** a Postdoctoral Research Associate from the **University of Nottingham.**

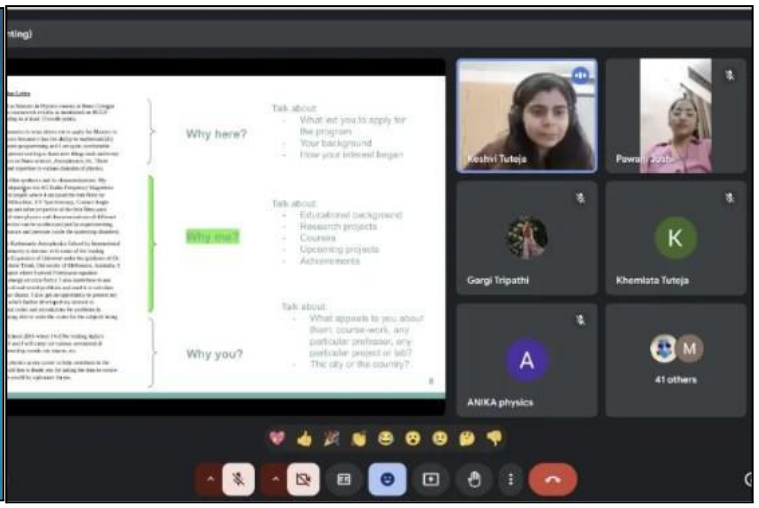
Dr. Mishra explained the expanding nature of the universe, highlighting the transitions between distinct cosmological epochs. He elaborated on the radiation- dominated era, where photons and relativistic particles dominated, followed by the matter- dominated era, where non- relativistic matter such as protons and neutrons became primary. Finally, he discussed the current dark energy- dominated era, characterized by the accelerating expansion of the universe driven by dark energy. The lecture also provided an overview of the Modern Hot Big Bang Theory, covering the initial singularity, the inflationary period, and the formation of large- scale structures. Dr. Mishra emphasized the importance of studying nature across scales, from microscopic (particle physics) to macroscopic (cosmology), highlighting the interconnectedness of phenomena.

The lecture offered a comprehensive understanding of contemporary cosmological models and the evolution of the universe, showcasing the interdisciplinary nature of modern physics. By exploring the connections between different scales and phenomena, students were encouraged to think critically and holistically about the universe.

In conclusion, Vidyut's lecture on cosmology was a resounding success, providing students with a deeper understanding of the universe and its evolution. Dr. Mishra' s expertise and engaging presentation style made the complex topic accessible and fascinating, inspiring students to explore the wonders of the cosmos.

WHAT NEXT?

A CAREER COUNSELLING SERIES



Vidyut, the Physics Society of Miranda House, University of Delhi, hosted a " What Next?" Career Counselling Session.Speaker: Keshvi Tuteja, a 2019 graduate with an M.Sc. from the University of Bonn, Germany.

The career counseling session, led by Keshvi Tuteja, provided students with valuable insights on academic and professional development. The session covered key topics, including building a strong academic CV and pursuing a Master' s degree abroad.

Keshvi Tuteja shared her personal academic and professional journey, offering students a unique perspective on career development.

Keshvi provided guidance on crafting a strong academic CV to secure research opportunities with top professors and institutions worldwide.

The session covered essential topics related to pursuing a Master' s degree abroad, including:

- Academic structures
- Admission requirements
- Standardized tests
- Tuition costs
- Living expenses
- Scholarships available to support international students

The session concluded with a Q&A, allowing students to clarify their doubts and gain valuable insights on their academic and research aspirations.

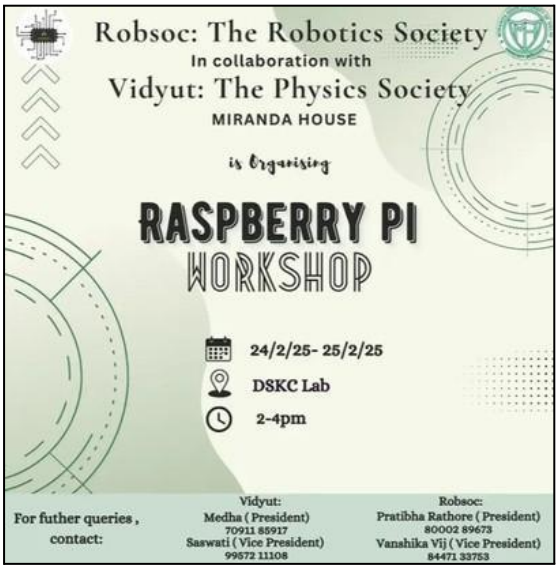
The session was well- received by students, who appreciated Keshvi' s expertise and guidance. The session provided students with valuable insights and practical advice on academic and professional development.

A Talk on “Quark - Gluon Plasma : A New State of Matter in Heavy Ion Collisions”

The physics department had the privilege of attending an enlightening talk by **Ms. Zarina Banoo** on the fascinating subject of **Quark-Gluon Plasma (QGP)—a novel state of matter** that emerges in high-energy heavy-ion collisions. The session, filled with deep insights and thought-provoking discussions, explored the cutting-edge research that brings us closer to understanding the fundamental fabric of the universe. Prof. Banoo began by introducing the audience to the concept of quarks and gluons, the elementary particles that form protons and neutrons.

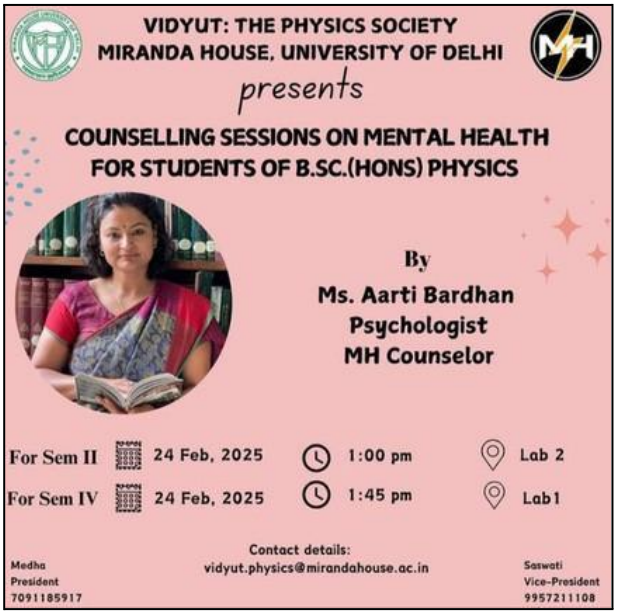
As the field progresses with more advanced experimental techniques and theoretical insights, the study of quark-gluon plasma continues to be a cornerstone of high-energy physics, promising discoveries that could reshape our understanding of the universe’s evolution. **Ms. Zarina Banoo’s** talk was a captivating journey into one of the most exciting frontiers of modern physics. By recreating conditions similar to the early universe, QGP research allows scientists to delve into the very nature of matter and the fundamental forces shaping our cosmos.

RASPBERRY PI WORKSHOP: Where circuit meets creativity



Robosc x Vidyut organized an exciting Raspberry Pi Workshop on the 24th and 25th of February 2025 at the DSKC Lab. This hands-on event was designed to bring together beginners and tech enthusiasts to explore the limitless possibilities of Raspberry Pi, an innovative and versatile microcomputer.The workshop provided an immersive learning experience, allowing participants to engage with practical electronics, coding, and circuit-building. Guided by experienced mentors, attendees had the opportunity to build creative projects, enhancing their understanding of hardware and software integration.The event ran from 2 PM to 4 PM on both days, ensuring a well-structured and interactive session. The collaboration between Robosc and Vidyut fostered a dynamic learning environment where innovation and creativity flourished. The workshop concluded with participants showcasing their projects, highlighting the impact of experiential learning.With a motto of **"Let's code, connect, and create—one Pi at a time!"**, the event successfully inspired young minds to experiment and innovate. It was a remarkable initiative that not only promoted technical skills but also encouraged teamwork and problem-solving.

COUNSELLING SESSIONS ON MENTAL HEALTH



The academic journey can be both exciting and challenging, often bringing stress and pressure. To support students' well-being, a Counseling Session on Mental Health was organized, focusing on addressing academic stress, building resilience, and maintaining a healthy mindset.The session provided valuable insights and practical strategies to help students manage their workload while prioritizing mental health. It created a safe space for discussions on stress management, self-care, and emotional well-being, ensuring that students felt supported in their academic endeavors.This initiative was well-received, with participants appreciating the opportunity to learn coping mechanisms and ways to achieve a balanced academic life.

Such efforts contribute to fostering a positive and nurturing environment, helping students thrive both personally and professionally.Looking forward to more such impactful sessions in the future.

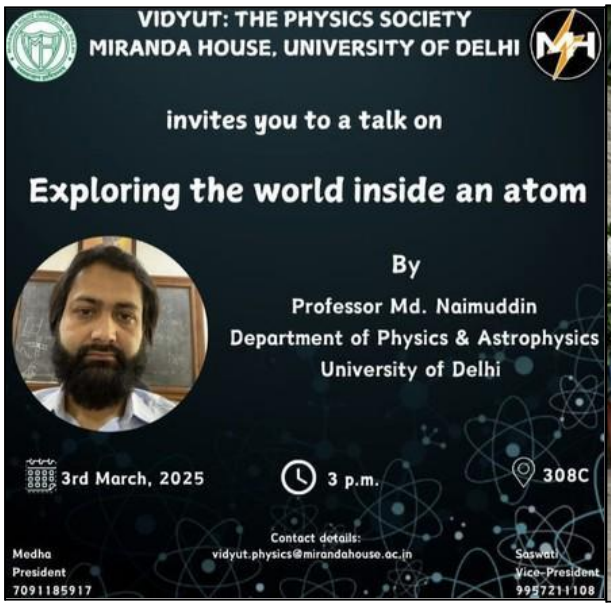
National Science Day Celebration at Our Physics Department

The **National Science Day** celebration at our Physics Department was a grand success, filled with innovation, enthusiasm, and knowledge-sharing. The event featured student **project demonstrations**, a **poster presentation session**, and an **inter-college competition**, making it a remarkable platform for scientific exploration. It served as an excellent opportunity for students to showcase their creativity, technical skills, and scientific curiosity. It provided a dynamic platform for scientific exploration, encouraging young researchers to engage in **discussions**, **exchange ideas**, and **gain insights** into emerging trends in physics and technology. It showcased innovative student projects and poster presentations allowed students to display their annual research work, fostering academic discussions. The event featured an inter-college competition, attracting participants from various institutions. Students demonstrated creativity and scientific knowledge through their hands-on experiments and models. The event successfully promoted innovation, collaboration, and a passion for science. With such an enthusiastic participation, the celebration truly embodied the essence of National Science Day, inspiring students to push the boundaries of knowledge and continue their journey in the world of science.

Dr. Vineeta and Dr. Soumya Prakash Dhal judged the Model Exhibition, while Dr. Divakar Pathak and Dr. Nitish evaluated the Poster Presentation. The winners of the Model Exhibition were Manshi Nehra, Charvi, Kanak Goyal, Aastha, Anveeta and Nitigya Ayushi Jha.

The winners of the Poster Presentation were Mehak, Aastha, Bhumika, E. Metna, Karthika, Medha, Aastha, and Muskan.

A TALK ON
" EXPLORING THE WORLD INSIDE AN ATOM"



Vidyut, the Physics Society of Miranda House, recently organized a lecture on "**Exploring the World Inside an Atom."** The event featured **Professor Md. Naimuddin** from the **Department of Physics & Astrophysics, University of Delhi.**

Professor Naimuddin, an esteemed experimental physicist and a contributor to global collaborations such as **CERN**, guided the students through the fascinating **world of atomic and subatomic physics**. He discussed the structure of atoms, fundamental particles like quarks and leptons, and the four fundamental forces that govern their interactions. The talk also shed light on the role of particle accelerators like the Large Hadron Collider, the significance of the Standard Model, and the breakthroughs in high-energy physics.

Through engaging visuals and thought-provoking analogies, the lecture encouraged students to explore the invisible universe that lies within the atom. The session concluded with an interactive Q&A, allowing students to clarify doubts and explore current research trends.

In conclusion, Vidyut's lecture on atomic physics was a resounding success. Professor Naimuddin's clarity, enthusiasm, and ability to simplify complex topics inspired students to delve deeper into the quantum world and appreciate the profound unity of the microscopic and cosmic scales.

IUAC VISIT

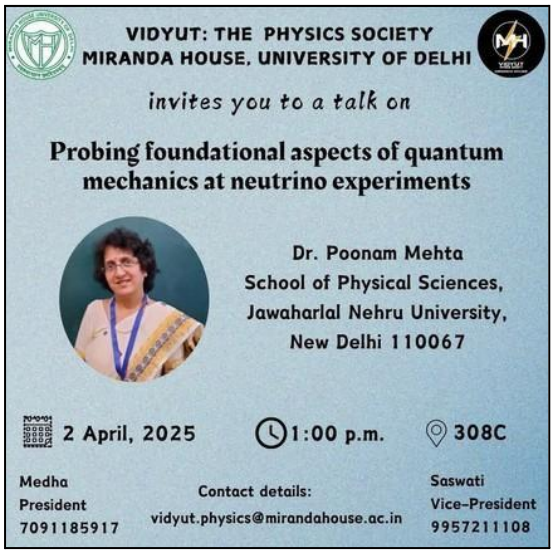
A group of third-year students had the opportunity to visit the Inter-University Accelerator Centre (IUAC) as part of an educational excursion. The primary objective of the visit was to explore the laboratory facilities and gain practical exposure to advanced scientific instruments and technologies, especially those related to the field of physics.

During the visit, students explored various sections of the IUAC lab. They observed a wide range of sophisticated instruments and equipment used in experimental physics, including particle accelerators, vacuum systems, detectors, and electronic measurement setups. The students were given detailed demonstrations and explanations about the working of these instruments by the research staff and faculty present at the facility.

The hands-on experience provided a valuable insight into real-world applications of the theoretical concepts studied in classrooms. Students learned about cutting-edge research being conducted at the center and how such equipment is used to carry out high-energy physics experiments.

Overall, the visit was highly informative and enriching. It offered students a unique chance to bridge the gap between theoretical learning and practical implementation. Many students expressed that they gained a deeper understanding of physics and felt inspired to pursue further research in the field.

Talk on "Probing Foundational Aspects of Quantum Mechanics at Neutrino Experiments"



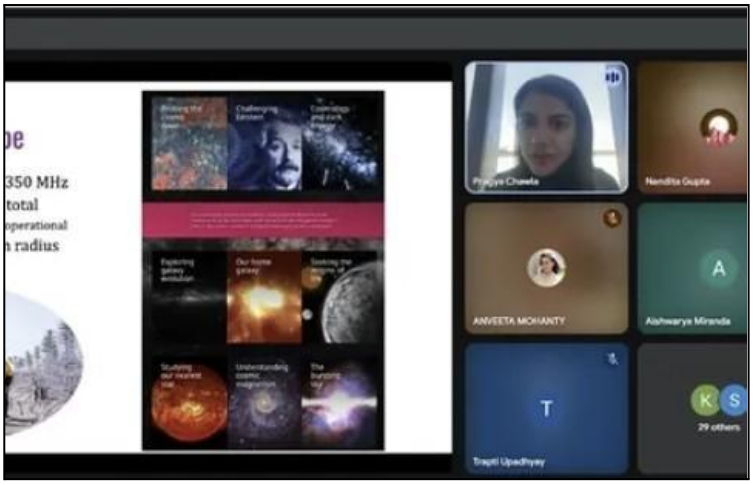
On 2nd April 2025, VIDYUT, the Physics Society of Miranda House, University of Delhi, organized an enlightening talk titled "Probing Foundational Aspects of Quantum Mechanics at Neutrino Experiments". The speaker for the event was Dr. Poonam Mehta, a distinguished physicist from the School of Physical Sciences, Jawaharlal Nehru University (JNU), New Delhi.

The session at Miranda House commenced at 1:00 PM and witnessed an enthusiastic participation of students and faculty alike.Dr. Mehta's talk explored essential quantum mechanical concepts with a focus on neutrino physics. She elaborated on the Mikheyev-Smirnov-Wolfenstein (MSW) effect, which describes how neutrino interactions with matter can enhance oscillation probabilities, especially within the Sun. She explained the phenomenon of neutrino oscillation—how neutrinos are produced in specific flavor states but propagate as mass eigenstates, leading to flavor transformations over time.Furthermore, Dr. Mehta discussed the two-flavor neutrino oscillation model, simplifying complex oscillation equations and underlining their experimental significance. Her presentation effectively bridged theoretical quantum mechanics with real-world neutrino experiments, offering attendees a comprehensive understanding of the topic.Beyond the academic insights, Dr. Mehta also shared her personal experiences, shedding light on the excitement and challenges of working in the field of neutrino physics. She encouraged student participation in research and emphasized the importance of staying curious and engaged in scientific pursuits.

This intellectually stimulating session not only provided valuable insights into quantum mechanics and neutrino physics but also inspired budding physicists to delve deeper into this fascinating area of study.

What Next?

A career counselling series



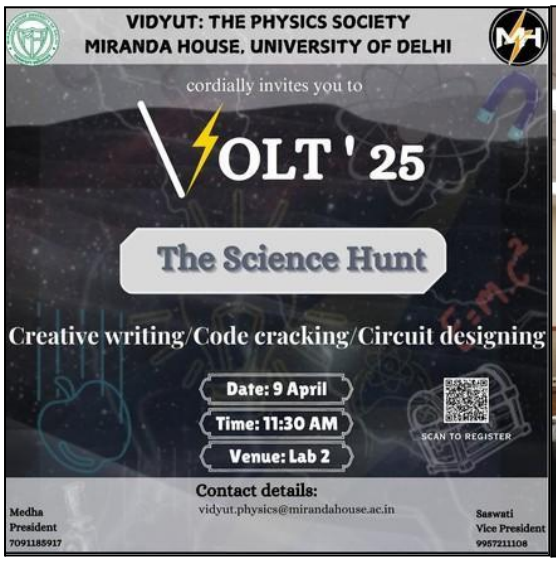
A guest talk was recently conducted by Dr. Pragya Chawla, SKA Data Scientist at ASTRON, on the theme of Data Science and Astronomy. The session was highly insightful and offered participants a unique perspective on the intersection of these two rapidly evolving fields.

Dr. Chawla shared her inspiring journey from Miranda House to her current role at ASTRON, providing valuable insights into career pathways in data science and astronomy. She effectively broke down complex scientific and technical concepts into easily understandable explanations, making the session accessible to attendees from diverse academic backgrounds.

The talk not only highlighted her professional experiences but also emphasized the immense opportunities available in these cutting- edge areas. Participants found the session engaging, motivating, and informative.

VOLT'25: Annual Fest of VIDYUT

The Science-Hunt



VOLT-25, the annual fest of **VIDYUT-The Physics Society**, was a vibrant celebration of innovation, creativity, and technical excellence. Among the key highlights was **Sci-Hunt**, an inter-college competition that brought together talented students from various Delhi University colleges. The event featured two intellectually stimulating segments – **Code Cracking** and **Circuit Designing** – with teams comprising two students each.

In **Code Cracking** , participants tackled a series of logic-based puzzles, programming challenges, and encryption tasks that tested their analytical thinking and coding skills under pressure. **Vandana Sharma** and **Jasmine Kaur** secured the **first** position, while **Manshi Nehra** and **Aastha Sharma** came in **second**.

The **Circuit Designing** event challenged participants to create innovative and functional electronic circuits. Judged on design, accuracy, and implementation, the **first** prize was awarded to **Abhilipsa Patra** and **Charvi Joshi**, followed by **Mahek Taneja** and **Kanak** in second place. The competition fostered collaboration, critical thinking, and technical ingenuity.

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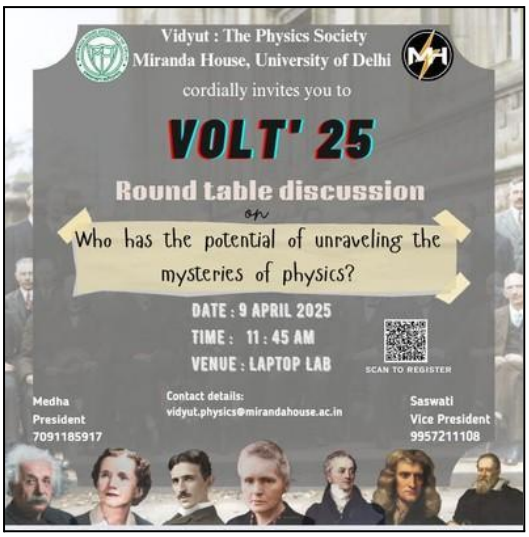
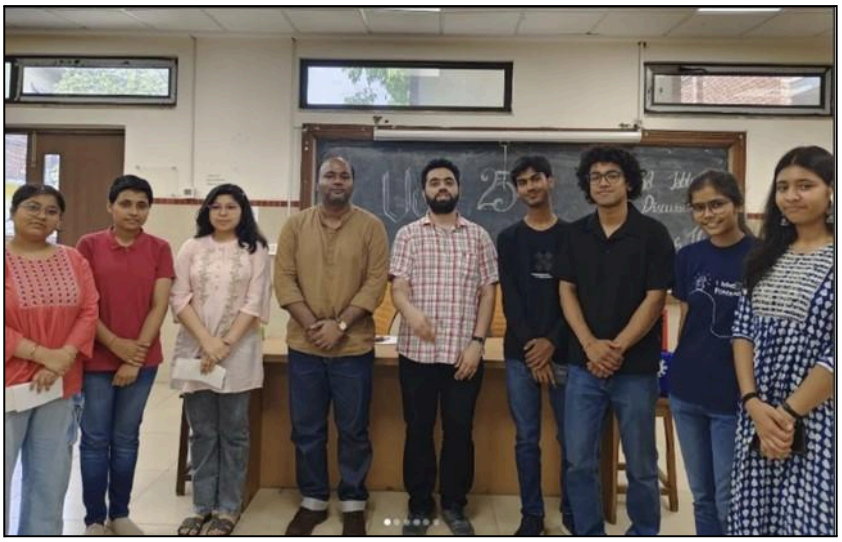
ROUND TABLE DISCUSSION





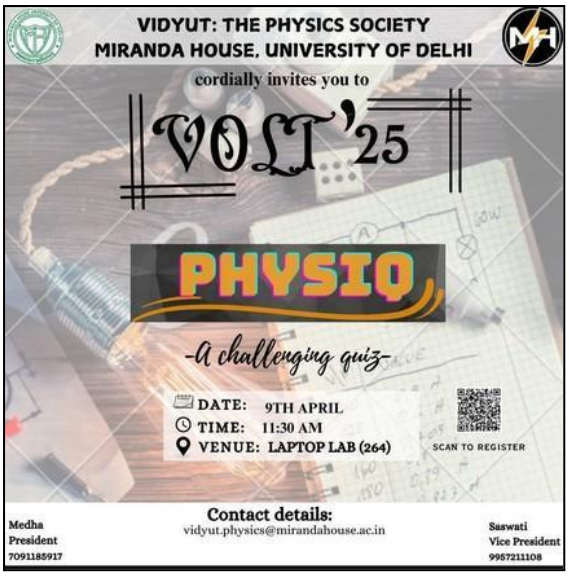
VOLT'25 , the much awaited **annual fest of Vidyut,** the physics society , Miranda house was celebrated on **9th** of **April**. The celebration was a grand gathering of various students from different colleges , professors and students of the physics department of Miranda house. Multiple mind blowing competitions were organised. The Round table discussion was one of them , with an amazing topic **'Who has the potential to unravel the mysteries of physics'.** It appealed to a great deal of knowledge and arguments about the future of physics.

Students explored diverse perspectives on legendary scientists and their groundbreaking contributions to the world of science.It was a very insightful and enriching experience to hear such deep reflections and enthusiastic debates.

Every participant had a unique way to represent their thought and perspective about the discoveries of physics. Those who captivated the judges with their amazing arguments were **Mehak Taneja** and **Aastha**. They won the discussion with their outstanding skills and presence of mind. Their articulation and insights stood out,making the session both enlightening and memorable.

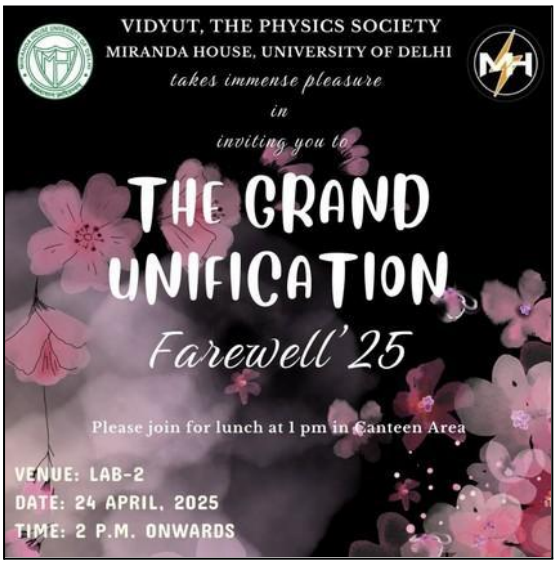
In a nutshell,the round table discussion concluded with resounding success,igniting thought-provoking conversations among passionate young minds.Here's to the future physicists shaping tomorrow's worlds.

The Ultimate Physics Quiz



The Physics Society of Miranda House, VIDYUT, successfully organized an intellectually enriching event titled PHYSIQ – The Ultimate Physics Quiz on 9th April at 11:30 AM in the Laptop Lab. As part of the annual academic fest VOLT ’25, this quiz was designed to challenge and stimulate the minds of students passionate about physics and problem-solving.The event drew enthusiastic participation from students across various departments, all eager to test their knowledge and skills. The quiz comprised thought-provoking questions covering core physics concepts, logical reasoning, and problem-solving scenarios. It was structured as a fast-paced contest that demanded both intellectual agility and quick decision-making, making it a true battle of wits and speed.Winners were rewarded with exciting cash prizes, adding a competitive edge to the event, while all participants received certificates in recognition of their involvement and enthusiasm. The quiz not only served as an academic challenge but also as an enjoyable and interactive experience that reignited students' curiosity about the subject.The success of PHYSIQ can be attributed to the meticulous planning and effort of the organizing committee, led by Medha (President) and Saswati (Vice President), along with the support of faculty members. Their commitment ensured a smooth and engaging experience for all involved. Overall, PHYSIQ proved to be a thrilling and impactful event that combined learning with fun, leaving a lasting impression on everyone who participated.

FAREWELL - 2025
THE GRAND UNIFICATION



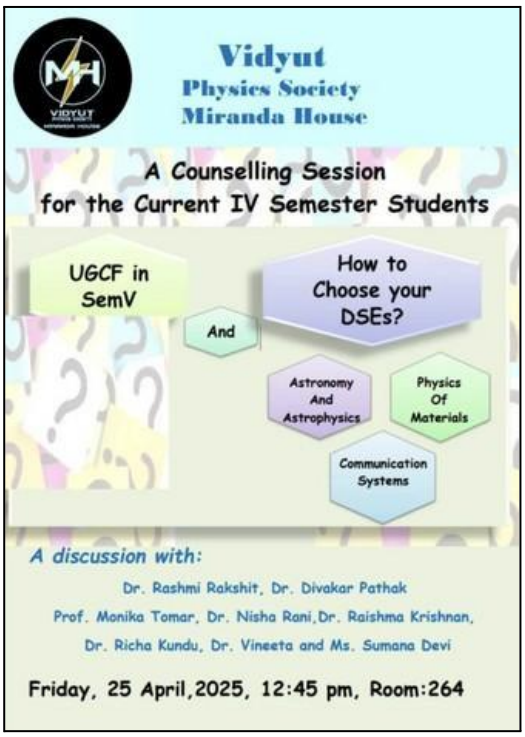
Farewell 2025, titled **"The Grand Unification"**, was a warm and memorable event organized by **Vidyut, the Physics Society of Miranda House** , to celebrate and bid adieu to the third-year students of the **Physics Department** .

The event commenced with the blessings of our esteemed teachers. In a heartfelt gesture, **Dr. Ambuj Sir** expressed his good wishes through a touching poem, setting an emotional tone for the evening. The program featured a range of enthusiastic student performances, including singing, dancing to various songs, and a lively ramp walk. Special titles were awarded to recognize the talents and personalities of the students — **Miss Farewell** was awarded to **Lipi** , **Miss Tune Titan** to **Aishwarya** , and **Miss Doppler Diva** to **Daidipya** , among others.

To preserve memories, a selfie point was set up for students to click photos, and a memory writing station allowed students to pen down their heartfelt thoughts and reflections. A special video montage showcasing memories and moments from the three- year journey was also played, adding a nostalgic touch to the celebration. A delicious buffet was arranged for all teachers and students on behalf of the department, and graduation hats were distributed to mark the occasion.

It was a deeply emotional moment for the graduating batch, filled with laughter, tears, and togetherness.

A Counselling Session for DSE's



On Friday, 25 April 2025 , the Physics Society, Vidyut of Miranda House organized a counselling session for the current IV semester students. The session aimed to guide students on the UnderGraduate Curriculum Framework (UGCF) for Semester V and to help them make informed decisions while choosing their Discipline Specific Electives (DSE's).
The discussion addressed key topics such as:
Astronomy and Astrophysics Physics of Materials
Communication Systems

The faculty provided valuable insights into the structure, scope, and career opportunities associated with each DSE, enabling students to align their choices with academic interests and professional goals.

The event proved highly beneficial for students, equipping them with clarity and confidence for the upcoming semester.

TRIP TO DHARAMSHALA AND MCLEODGANJ

The Physics Department of Miranda House organized a three- day educational and recreational trip to Dharamshala and Mc Leodganj, offering students a blend of adventure, cultural immersion, and camaraderie. The trip proved to be a memorable experience filled with exploration, learning, and bonding.

Day 1 : Scenic Exploration

The journey began with visits to the Bhagsu Waterfall and the Bhagsunath Temple. Students enjoyed the serene natural surroundings and spiritual ambiance before heading to the lively local markets of McLeodganj. The vibrant stalls and unique handicrafts provided an opportunity to
collect souvenirs and experience the local culture.

Day 2 : Trekking Adventure

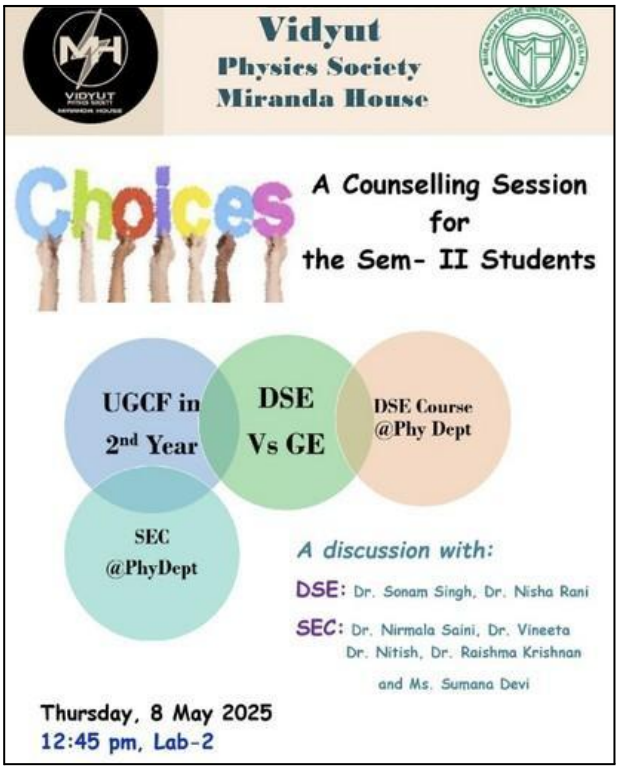
The second day was dedicated to trekking through the lush mountain landscapes. Students embraced the spirit of adventure while navigating scenic trails, fostering teamwork and resilience. The crisp mountain air and panoramic views left a lasting impression on all participants.

Day 3 : Cultural and Historical Immersion

The final day included visits to the Dalai Lama Temple, the picturesque tea gardens, and the historic St. John Church. This combination of cultural, natural, and historical sites provided a holistic experience, deepening students' appreciation for the region's heritage and tranquility.

The trip successfully blended relaxation, physical activity, and cultural enrichment. It strengthened bonds among students, offered a refreshing break from academics, and created memories to be cherished for years to come.

A Counselling Session for DSE's Vs GE's



On Thursday, 8 May 2025 , the Physics Society Vidyut of Miranda House organized a counselling session for the Semester II students. The session aimed to provide guidance on the University Grants Commission Framework (UGCF) for the 2 nd year and to clarify the structure, choices, and academic significance of Discipline Specific Elective's (DSE's), Generic Elective's (GE's), and Skill Enhancement Course's (SEC's) offered by the Physics Department.

Key topics discussed included:

Understanding UGCF in the 2 nd year

DSE vs GE – differences, scope, and career relevance SEC courses in the Physics Department

Overview of DSE courses available in the department.

The session provided students with clarity about their course options and helped them make informed academic decisions. The interactive discussions ensured that doubts were addressed and participants left with a better understanding of their upcoming academic pathways.

DSKC Summer Internship Programme on *Investigative Projects in Multidisciplinary Contexts*

The DS Kothari Centre for Research & Innovation in Science Education, Miranda House, University of Delhi, hosted the Inaugural Ceremony of its Summer Internship Programme on "Investigative Projects in Multidisciplinary Contexts" on 9th June 2025 at the college auditorium.

The programme was scheduled to run from 9th June to 19th July 2025 , offering students a unique opportunity to engage in hands- on research across multiple disciplines.
The ceremony was graced by Ms. Suma Varughese, Director General MED, CoS& CS (MCC), DRDO, as the Chief Guest. She addressed the gathering with an inspiring talk, emphasizing the importance of interdisciplinary collaboration in research and innovation. Her insights motivated students to approach their projects with curiosity, dedication, and creativity.

The event was presided over by Prof. Bijayalaxmi Nanda, Principal of Miranda House, and coordinated by Prof. Monika Tomar, DSKC Coordinator. The inaugural session also introduced the objectives and structure of the internship programme, highlighting its role in enhancing research skills, fostering innovation, and preparing students for future academic and professional pursuits.
The event set a positive and enthusiastic tone for the internship period, encouraging participants to make the most of this immersive research experience.

Workshop on ARDUINO

On 12th June 2025, Robsoc: The Robotics Society in collaboration with Vidyut: The Physics Society of Miranda House organized a Workshop on Arduino for Area 1 DSKC, Physics domain students. The event was held in Room 264 (Laptop Lab) at 12:30 PM.

The workshop aimed to introduce participants to the fundamentals of Arduino, an open-source electronics platform used for building interactive projects. Through hands- on activities, students learned about hardware components, basic programming, and real-world applications of Arduino in physics- related projects.

The session provided an interactive learning environment where participants could engage directly with the devices, experiment with code, and understand sensor interfacing and automation concepts. The collaborative format encouraged problem- solving, creativity, and teamwork.

This workshop not only enhanced students' technical skills but also inspired them to explore further possibilities in robotics, automation, and interdisciplinary applications of electronics in science.

Talk on: From Nature to Nano: Buildings Smart Materials

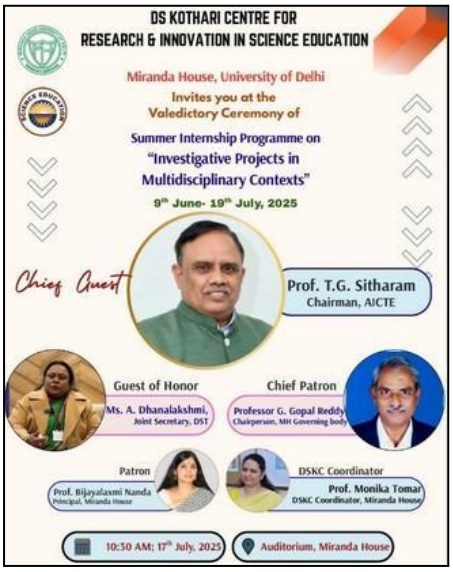
On 25 th and 26 th June, the DSKC Summer Internship Program at Miranda House hosted a workshop titled " Green Synthesis and Deposition Techniques: From Nature to Nano: Building Smart Materials", conducted by Ms. Mehak Rani, a B.Sc. (Hons) Physics student of Miranda House. The sessions took place in Room 308 C, beginning at 10:00 AM each day.

The workshop focused on introducing participants to environmentally friendly methods for synthesizing and depositing materials at the nano- scale.

Attendees explored how natural resources can be leveraged to develop nano- materials, aligning with the growing demand for eco- conscious scientific innovation. The interactive nature of the workshop encouraged active participation, with hands- on exposure to the tools and techniques involved.

The event proved to be an enriching learning opportunity, equipping students with knowledge and skills at the intersection of green technology, materials science, and nanotechnology, and fostering curiosity for further research in sustainable innovation.

Valedictory Ceremony of Summer Internship Program



The DS Kothari Centre for Research & Innovation in Science Education, Miranda House, University of Delhi, successfully conducted the Valedictory Ceremony of its Summer Internship Programme on "Investigative Projects in Multidisciplinary Contexts" on 17 th July 2025 . The internship programme ran from 9th June to 19th July 2025 and provided participating students with an opportunity to engage in hands-on, multidisciplinary research.

The ceremony was graced by distinguished guests:
Chief Guest: Prof. T. G. Sitharam, Chairman, AICTE,
Guest of Honor: Ms. A. Dhanalakshmi, Joint Secretary, DST,
Chief Patron: Professor G. Gopal Reddy, Chairperson,
MH Governing Body Patron: Prof. Bijayalaxmi Nanda, Principal, Miranda House,
DSKC Coordinator: Prof. Monika Tomar, DSKC Coordinator, Miranda House.

The event highlighted the innovative projects undertaken during the internship, showcasing the collaborative efforts of students and mentors in addressing research questions across diverse fields. The Chief Guest, Prof. T. G. Sitharam, commended the students' creativity and encouraged them to continue exploring interdisciplinary approaches to problem- solving.
The ceremony concluded with words of appreciation from the Guest of Honor and dignitaries, who emphasized the importance of research- driven learning in higher education. The programme was a testament to the commitment of Miranda House towards fostering research, innovation, and multidisciplinary engagement among students.