

REPORT

National Summer School on Quantum Science and Technology: *Hands-on Exploration and Emerging Frontiers*



SLC(University of Delhi)
SHYAM LAL COLLEGE
NAAC A++, NIRF 43rd

Research & Development Centre and IQAC, SLC

in collaboration with

QMD-IIT Delhi, IUAC Delhi & CSIR-NPL Delhi

organises

NATIONAL SUMMER SCHOOL

on

**QUANTUM
SCIENCE & TECHNOLOGY**

Hands-on Exploration and Emerging Frontiers

16-27th June, 2026

Chief Patron
Smt. Savita Gupta
Chairperson, SLC Governing Body

Convenor, Summer School & RDC
Prof. Niti Agrawal

Patron
Prof. Rabi Narayan Kar
Professor-Principal, SLC

Director IQAC
Prof. Kusha Tiwari

Program Coordinators
Dr. Pradeep Sharma Dr. Sunny Aggarwal

Organising Team:
Dr. Kanika Solanki, Dr. Padma Dechan, Dr. Rahul Boadh, Dr. Virender, Dr. Vinod Kumar
Dr. Neelam Dabas, Dr. Sushil Kumar, Dr. Pranav Dass, Dr. Neha Bothra
Mr. Aakash Kumar Soni, Dr. Ompal Singh, Dr. Rakesh Pant, Dr. Ankit Mittal

The **National Summer School on Quantum Science and Technology: Hands-on Exploration and Emerging Frontiers**, was organized by the **Research & Development Centre (RDC) and IQAC, Shyam Lal College, University of Delhi**, from **16–27 June 2026**. The Summer School was conceived and designed with the objective of introducing undergraduate students to the rapidly evolving field of Quantum Science and Technology through a unique blend of lectures, hands-on training, laboratory visits, demonstrations, and interactions with leading scientists and researchers. **The initiative was aligned with the vision of the National Quantum Mission**, which emphasizes capacity building and human resource development in quantum technologies. The program was organised **in collaboration with three premier institutions—QMD foundation-IIT Delhi, IUAC Delhi, and CSIR–National Physical Laboratory, New Delhi**. The Summer School **received an overwhelming response from undergraduate students across the country**. As this was a **limited seat program**, a total of **22 participants** from diverse science and engineering disciplines were selected to participate.

The inaugural day (16th June 2026) commenced with a series of ceremonial activities, including the registration, arrival of guests, and a warm welcome ceremony involving lamp lighting, followed by playing University of Delhi Kulgeet. **Prof. Niti Agrawal, Convenor of the Summer School and RDC, outlined the vision and structure of the two week-long event**. She also emphasized that the programme would combine theoretical understanding with practical exposure through expert lectures, demonstrations, laboratory visits, and hands-on sessions. **Prof. Rabi Narayan Kar, Principal, Shyam Lal College, highlighted the transformative role of scientific research in nation-building and emphasized the need to nurture young minds capable of contributing to emerging technologies**. He encouraged participants to make full use of the unique learning experience. **The keynote address was delivered by Prof. A. C. Pandey, Director, IUAC, New Delhi, as the Chief Guest**. In his address Prof. Pandey discussed the growing significance of quantum technologies in the twenty-first century. He explained how quantum science is expected to revolutionize computing, communication, sensing, materials research, healthcare, cybersecurity, and advanced instrumentation. He emphasized that future technological competitiveness will depend significantly on a nation's ability to develop expertise in quantum technologies and create a strong ecosystem of research and innovation. The opening day also featured an **expert lecture by Dr. Mahesh Kumar, Senior Principal Scientist, CSIR and Professor, AcSIR**, who interacted with participants and shared insights into **“Physics of Extremes: Ultra Small**

& Ultra Fast". The last session of the day was the **Peer-Faculty Interaction & Networking Session** and also **each participant was assigned one mentor** (faculty of SLC and organising team member) to guide, motivate, facilitate discussions, and help participants develop a research-oriented mindset. Participants were also given a **research journal** to document their observations, key concept learnt, questions that emerged during hands-on training, lab visits, lectures and personal reflections throughout the program to encourage reflective learning and nurture a research-oriented mindset among participants.



For the next three days (17th-19th June 2026), the participants gained **hands- on training in Quantum Enabled Semiconductor Device fabrication at IIT Delhi**. The training program was conducted by the **QMD (quantum materials and devices) Foundation** which has been set up by **IIT Delhi under the National Quantum Mission**. The day began with an inspiring address by **Prof. Rajendra Singh**, a leading force behind the **National Quantum Mission at IIT Delhi**, who shared India's vision for becoming a global leader in quantum technologies. Participants also attended an insightful lecture by Dr. Niyati on semiconductors—the foundation of next-generation technological advancement. Participants got **hands-on experience on Clean Room Facility** by Dr. Uday, followed by **hands-on training at the Nanoscale Research Facility**, providing students with direct exposure to cutting-edge scientific infrastructure.





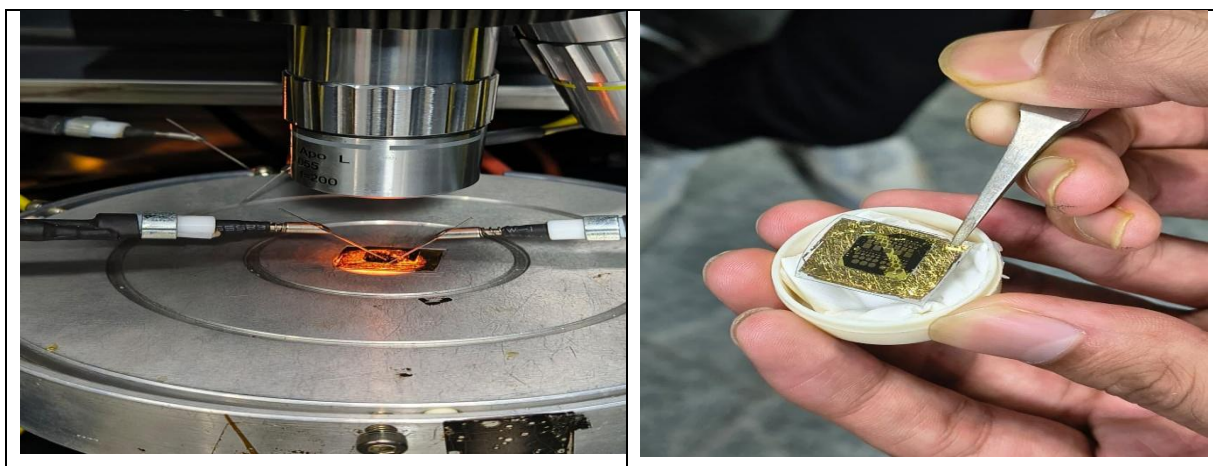
Participants gained **hands-on exposure to thin-film deposition and metallization, key processes in semiconductor and quantum device fabrication.** The day began with an insightful lecture by Prof. Bhaskar Mitra on metallization techniques, followed by **practical training at the Nanoscale Research Facility (NRF), IIT Delhi.** Students observed the electron-beam (E-beam) deposition process, an essential step in creating microelectronic and quantum devices. The session provided a valuable glimpse into advanced nanofabrication techniques and state-of-the-art research infrastructure. From theory to practice, participants experienced how cutting-edge devices are engineered at the nanoscale.





The National Summer School on Quantum Science & Technology continued its exciting journey at IIT Delhi field visit on the third day with an **intensive day of hands-on learning** and scientific exploration. Participants carried out the **lift-off process (contact formation) of photoresist from metal-coated plates, followed by electrical measurements using a probe station**. They then analysed experimental data and learned how to interpret the performance of fabricated devices -an essential step in modern nanotechnology and semiconductor research. The day concluded with an engaging interaction and question-answer session with Prof. Rajendra Singh and his research team, providing participants an opportunity to discuss research pathways, emerging technologies, and career opportunities in quantum science.

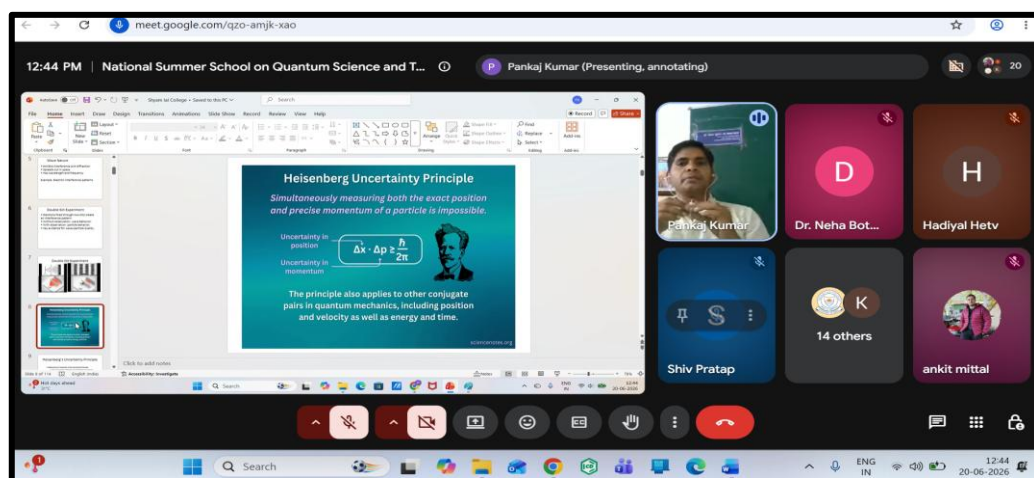
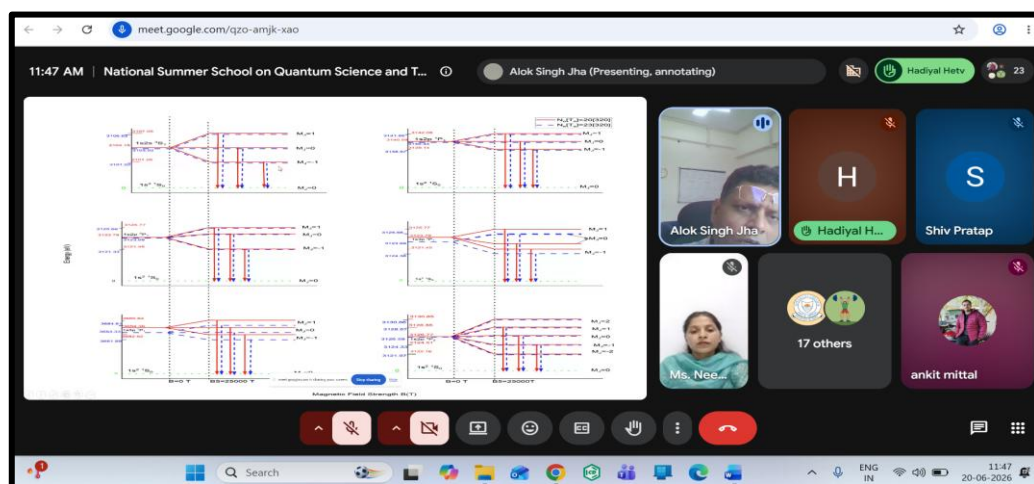
Through direct exposure to advanced research facilities and expert mentorship, students gained a deeper appreciation of how scientific concepts are translated into real-world technological applications.

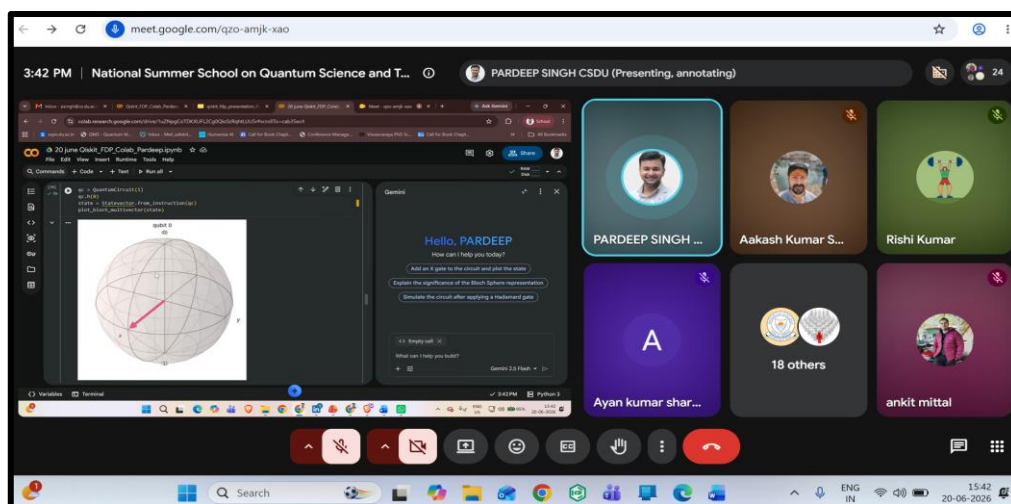




The fifth day of the programme (20th June 2026) was dedicated to online expert lectures covering diverse aspects of quantum science, atomic physics, quantum computing, and practical quantum programming. The sessions provided participants with a blend of theoretical foundations, emerging research developments, and hands-on exposure to contemporary quantum technologies. The first was delivered by **Dr. Alok Kumar Singh Jha**, Assistant Professor, School of Physical Sciences, **Jawaharlal Nehru University (JNU)**, on the topic “*Atoms and Ions in Plasma and External Fields.*” The lecture provided a comprehensive understanding of atomic processes in plasma environments and their significance in astrophysics, fusion energy research, and laboratory astrophysics. The second session was conducted by **Dr. Pankaj Kumar**, Associate Professor, **Central University of Himachal Pradesh**, on the topic “*Basics of Quantum Computing: Concepts and Recent Developments.*” The lecture introduced participants to the fundamental principles of quantum mechanics underlying quantum computation. He discussed important concepts such as qubits, Hilbert

space, Dirac notation, unitary matrices, Bloch sphere representation, and quantum walks. The third session was initiated by **Dr. Om Pal**, Associate Professor, Department of Computer Science, University of Delhi, on the topic “*Getting started with Quantum programming: A Hands-on Introduction to Qiskit.*” Dr. Om Pal introduced the importance of quantum programming, its growing relevance in the era of quantum technologies, and the need to develop practical skills in this emerging field. **Mr. Pardeep Singh**, Senior Research Fellow, University of Delhi, and Co-founder, Director & CTO, SafeQbit Technologies, conducted the hands-on component of the session of quantum programming. Participants learned about quantum gates, quantum circuit design, quantum measurements, Bloch sphere visualization, Bell states, and quantum random number generation, with selected examples illustrated using Qiskit.





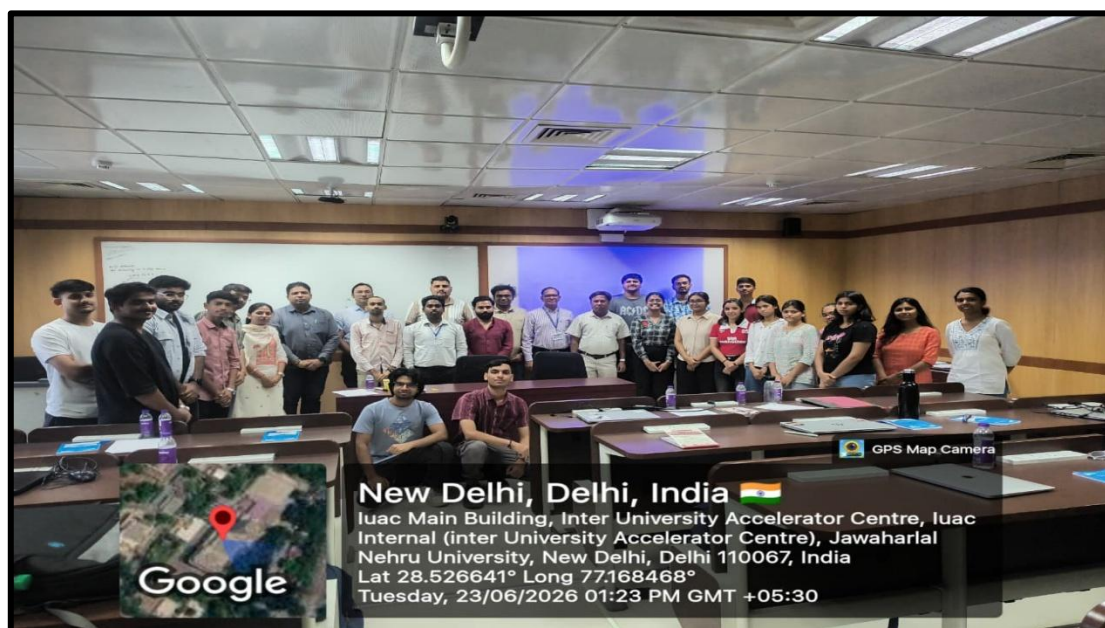
For the next two days, (22nd-23rd June 2026) participants visited IUAC Delhi for their learning and training. The visit to IUAC provided participants with valuable exposure to advance research facilities and emerging technologies in quantum science and scientific computing. **Day One** was focused on quantum computing, quantum optimization, and quantum Technologies. The expert lectures included talk by **Dr. L. Venkata Subramaniam, Founder and Director, QbitForce**, on the topic “**Quantum Technologies: India’s Decade for Leadership**”, **Prof. Utkarsh Mishra, University of Delhi**, on the topic “**Quantum Advantage in Metrology.**” The session focused on parameter estimation as a fundamental task in metrology and discussed the transition from classical measurement systems towards quantum atom-based standards. **Prof. Bodhaditya Santra, IIT Delhi**, on the topic “**Quantum Computing using Neutral Atoms and High Precision Lasers.**” **Prof. Bhaskar Kanseri, IIT Delhi**, on the topic “**Quantum Technology: The Future of Safe Communication.**” The lecture traced the evolution from the first quantum revolution to the present era of quantum engineering and highlighted the growing importance of secure communication technologies. **Mr. Vicky Budhiraj, Qute Electronics, New Delhi**, conducted “**Hands-on Experience with Quantum Circuits.**” Participants were introduced to practical quantum programming using **Qiskit** and learned the basics of quantum circuit design and implementation. The session covered the installation of Qiskit and demonstrations of commonly used quantum gates,

On the second day at IUAC participants gained comprehensive exposure to **high performance computing, artificial intelligence and their applications in scientific research.** Expert sessions introduced modern computing architecture, AI and machine learning techniques for research HPC infrastructure and its real world applications, Material science

simulations and computational tools ranging from molecular dynamics to quantum computing. **The hands-on training on HPC resources, Parallel programming and scientific workflows** provided participants with practical experience in using advanced computational techniques for solving complex scientific problems. Thereby strengthening their understanding of modern research methodologies.

The sessions successfully integrated strategic perspectives, quantum sensing, quantum metrology, neutral atom quantum computing, secure quantum communication, and practical quantum circuit implementation. and highlighted India's growing momentum in quantum technologies.





On 24th June, 2026, participants had an unforgettable day of discovery as they had an educational visit to DRDO's Quantum Technology Research Centre (QTRC), Metcalfe House, Delhi. From ultra-small atomic clocks and microfabricated alkali vapor cells to a live demonstration of the cutting-edge Moku:Pro platform, participants gained first-hand exposure to advanced quantum instrumentation. They also explored physics packages, their characterisation and testing, witnessing how fundamental science is translated into next-generation technologies for strategic and national applications. The visit provided a rare opportunity to interact with pioneering research facilities, inspiring participants to contribute to India's rapidly growing quantum ecosystem under the National Quantum Mission.

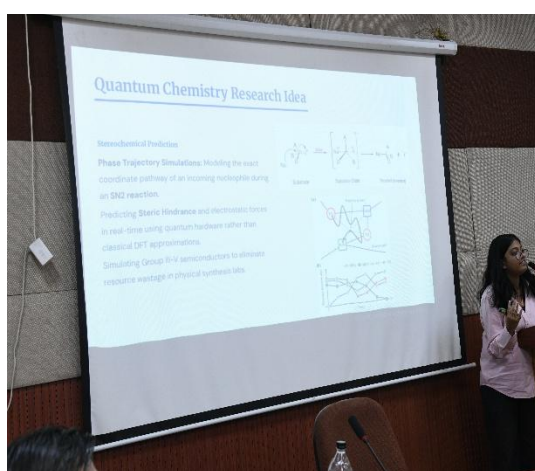


On 25th June, 2026, participants of National Summer School on Quantum Science & Technology: Hands-on Exploration and Emerging Frontiers visited CSIR–National Physical Laboratory (NPL), New Delhi, India's National Metrology Institute (NMI). Participants explored the science of precision measurements through expert lectures and laboratory visits.

Dr. Rajiv K. Singh introduced **spectroscopy and ultrafast transient absorption** techniques, while **Dr. Ashish Agrawal** demonstrated the realization of SI units, atomic clocks, and time dissemination through GPS and NavIC systems in the **Time and Frequency Metrology Laboratory**. The participants also visited the **Iodine-Stabilized He-Ne Laser Laboratory** with **Dr. Girija Mona** and **Dr. Srijith Bangaru Thirumalairaj**, and the **Temperature, Humidity and Boltzmann Constant Laboratory** with **Dr. D. D. Shivagan** and **Dr. Komal Bapna**, gaining valuable insights into laser metrology, temperature standards, and the **role of fundamental constants in modern measurement science**. The visit provided an enriching hands-on experience of the technologies that underpin scientific research, industry, and national standards.



The final day of the National Summer School on Quantum Science and Technology: Hands-on Exploration and Emerging Frontiers, held on 27 June 2026, marked the successful culmination of two weeks of intensive learning, hands-on training, and scientific exploration. The day commenced with **participant presentations**, during which students shared their key learnings, experiences, and reflections from the Summer School. Through engaging presentations, they discussed the concepts of quantum science and technology they had explored, highlighted the knowledge gained from expert lectures, laboratory visits, and hands-on sessions, and expressed how the programme had inspired them to pursue research and innovation in emerging scientific fields. The presentations reflected not only their understanding of the subject but also the confidence and scientific outlook developed during the programme.



The valedictory ceremony was held in the afternoon in the Board Room of Shyam Lal College. The programme began with a warm welcome to the dignitaries, faculty members, collaborators, and participants. **The Convenor of Summer School and RDC, Prof. Niti Agrawal presented**

a comprehensive report of the Summer School, outlining its objectives, academic activities, expert lectures, practical sessions, institutional visits, and the enthusiastic participation of students throughout the two-week programme. **The IQAC Director, Prof. Kusha Tiwari**, highlighted the institution's consistent efforts in organising academic programmes aligned with the national missions and emerging priorities. She also shared the institution's vision of organising multidisciplinary academic programmes on a biannual basis, enabling students to engage with frontier areas of knowledge that contributes to national development. **The Principal of Shyam Lal College, Prof. Rabi Narayan Kar congratulated the participants on successfully completing the Summer School** and appreciated the efforts of the Research & Development Centre, IQAC, and the collaborating institutions—IUAC Delhi, IIT Delhi, and CSIR–National Physical Laboratory—for organizing a high-quality academic programme in the frontier area of quantum science and technology. **The Chief Guest, Prof. Venu Gopal Achanta, Director CSIR-NPL, New Delhi**, joined the ceremony virtually and delivered an inspiring address. He emphasized the growing importance of quantum technologies in scientific research and national development, appreciated the initiative taken by Shyam Lal College in organizing the Summer School, and encouraged participants to continue developing their scientific temperament and contribute to India's research ecosystem.

Certificates were then distributed to all participants in recognition of their successful completion of the Summer School. A special highlight of the ceremony was the announcement of the **Best Research Journal Awards**, which were presented to **Miriyala Varun Tej** from **Malla Reddy University, Hyderabad** and **Anjni** from **Shyam Lal College, University of Delhi** for maintaining outstanding research journals that reflected their learning, observations, and scientific understanding throughout the programme.

The ceremony concluded with a heartfelt vote of thanks expressing gratitude to the Principal, Chief Guest, collaborating institutions, resource persons, organizing committee, technical staff, student volunteers, and participants for their invaluable contributions. The programme ended with the National Anthem, marking the successful conclusion of a memorable Summer School that inspired young learners to explore the exciting frontiers of quantum science and technology.



Names of the Participants of the Summer School and their respective Institutes.

	Participant's Name	Affiliation
1.	Harsh Vardhan Singh	Shyam Lal college, University of Delhi
2.	Kashish Mishra	Maitreyi College, University of Delhi
3.	Daksh Choudhary	Shyam Lal college, University of Delhi
4.	Utkarsh Singh	Acharya Narendra Dev College University of Delhi
5.	Anjni	Shyam Lal college, University of Delhi
6.	Ayan Kumar Sharma	Shyam Lal college, University of Delhi
7.	Pawel Rajeev Kumar	Deenabandhu chotu ram university of science and technology
8.	Fatima	Deenabandhu chotu ram university of science and technology
9.	Hadiyal Hetv Arvindbhai	Shree M. P. Shah Arts and Science College, Surendranagar, Gujarat
10.	Sumit Raj	Acharya Narendra Dev College, University of Delhi
11.	Saharsh Suman	Deen Dayal Upadhyaya College, University of Delhi
12.	Afreen Chaudhary	Kalindi College, University of Delhi
13.	Miriyala Varun Tej	Malla Reddy University , Hyderabad
14.	Vinayak	Deen Dayal Upadhyay College, University of Delhi
15.	Shreya Pandey	Deshbandhu College, University of Delhi
16.	Vanshika Yadav	Kalindi College, University of Delhi
17.	Abhinandan Walia	Deen Dayal Upadhyaya College, University of Delhi
18.	Rishi kumar	Shyamlal college, University of Delhi
19.	Kavita Kumari	Patna women's college
20.	Shivani kumari	Patna women's college
21.	Vaibhav K Joshi	Chanakya University, Karnataka
22.	Prateek Joshi	Chanakya University, Karnataka

Shyam Lal College Organizes National Summer School on Quantum Science and Technology



Rakesh Thapliyal

New Delhi: The 10-day National Summer School on Quantum Science and Technology: Hands-on Exploration and Emerging Frontiers concluded successfully at Shyam Lal College, University of Delhi, after witnessing overwhelming participation from students representing universities and colleges across India. The programme

reflected the College's commitment to promoting scientific excellence, innovation, and research-oriented education among young learners. The initiative conducted by the Research & Development Centre (RDC) and Internal Quality Assurance Cell (IQAC) in collaboration with IIT Delhi, Inter-University Accelerator Centre (IUAC), and CSIR-National Physical Laboratory (NPL), provided participants with an intensive academic journey under the vision of the National

Quantum Mission.

A comprehensive curriculum introduced participants to quantum computing, quantum sensing, quantum communication, quantum metrology, spectroscopy, accelerator science, atomic physics, cybersecurity, and hands-on quantum programming. Expert lectures by distinguished scientists, academicians, and industry professionals were complemented by interactive laboratory demonstrations and practical training sessions. Visits to premier research institutions, including IIT Delhi, IUAC, CSIR-NPL, and the DRDO Quantum Technology Research Centre, offered invaluable exposure to advanced laboratories, atomic clocks, laser metrology, accelerator facilities, precision measurement systems, and emerging quantum technologies. These immersive experiences transformed theoretical learning into practical scientific understanding.

The valedictory session celebrated the successful completion of a truly enriching academic programme that empowered participants with knowledge, skills, and inspiration for future research.

श्याम लाल कॉलेज में क्वांटम साइंस और टेक्नोलॉजी पर नेशनल समर स्कूल का आयोजन हुआ

पहली 'आम आम'

पहल टुडे

नई दिल्ली। दिल्ली यूनिवर्सिटी के श्याम लाल कॉलेज में 'क्वांटम साइंस और टेक्नोलॉजी: हैंड्स-ऑन एक्सप्लोरेशन एंड इमर्जिंग फ्रंटियर्स' विषय पर 10-दिवसीय नेशनल समर स्कूल सफलतापूर्वक संपन्न हुआ।

इसमें पूरे भारत के विश्वविद्यालयों और कॉलेजों के छात्रों ने बड़ी संख्या में भाग लिया। यह कार्यक्रम युवा शिक्षार्थियों के बीच वैज्ञानिक उत्कृष्टता, नवाचार और अनुसंधान-उन्मुख शिक्षा को बढ़ावा देने के कॉलेज के संकल्प



को दर्शाता है। IIT दिल्ली, सेंटर (IUAC) और CSIR-इंटर-यूनिवर्सिटी एक्सेलेरेटर

(NPL) के सहयोग से रिसर्च एंड डेवलपमेंट सेंटर (RDC) और इंटरनल क्वालिटी एश्योरेंस सेल (IQAC) द्वारा आयोजित इस पहल ने प्रतिभागियों को नेशनल क्वांटम मिशन के विजन के तहत एक गहन शैक्षणिक अनुभव प्रदान किया। एक व्यापक पाठ्यक्रम के माध्यम से प्रतिभागियों को क्वांटम कंप्यूटिंग, क्वांटम सेंसिंग, क्वांटम कम्युनिकेशन, क्वांटम मेट्रोलॉजी, स्पेक्ट्रोस्कोपी, एक्सेलेरेटर साइंस, एटॉमिक फिजिक्स, साइबर सुरक्षा और हैंड्स-ऑन क्वांटम प्रोग्रामिंग से परिचित कराया गया। प्रतिष्ठित वैज्ञानिकों,

शिक्षाविदों और उद्योग के पेशेवरों के विशेषज्ञ व्याख्यानों के साथ-साथ इंटरैक्टिव प्रयोगशाला प्रदर्शन और व्यावहारिक प्रशिक्षण सत्र भी आयोजित किए गए।

IIT दिल्ली, IUAC, CSIR-NPL और DRDO क्वांटम टेक्नोलॉजी रिसर्च सेंटर जैसे प्रमुख अनुसंधान संस्थानों के दौरान प्रतिभागियों को उन्नत प्रयोगशालाओं, एटॉमिक क्लॉक, लेजर मेट्रोलॉजी, एक्सेलेरेटर सुविधाओं, सटीक माप प्रणालियों और उभरती क्वांटम तकनीकों के बारे में बहुमूल्य जानकारी और अनुभव प्रदान किया।

पहल टुडे

लखनऊ मार्गदर्शन में पहली जुलू कराएगा। या तक चलेगा तरफ से 'अ का आयोज दौरान पीथरो संरक्षण, वा संरक्षण, वा जन जागरूक रहेगा। मुख्य वन

02 खबर कोश

उत्तर प्रदेश

श्याम लाल कॉलेज में क्वांटम साइंस और टेक्नोलॉजी पर नेशनल समर स्कूल का आयोजन हुआ

खबर कोश

नई दिल्ली। दिल्ली यूनिवर्सिटी के श्याम लाल कॉलेज में 'क्वांटम साइंस और टेक्नोलॉजी: हैंड्स-ऑन एक्सप्लोरेशन एंड इमर्जिंग फ्रंटियर्स' विषय पर 10-दिवसीय नेशनल समर स्कूल सफलतापूर्वक संपन्न हुआ।

इसमें पूरे भारत के विश्वविद्यालयों और कॉलेजों के छात्रों ने बड़ी संख्या में भाग लिया। यह कार्यक्रम युवा शिक्षार्थियों के बीच वैज्ञानिक उत्कृष्टता, नवाचार और अनुसंधान-उन्मुख शिक्षा को बढ़ावा देने के कॉलेज के संकल्प



को दर्शाता है। IIT दिल्ली, सेंटर (IUAC) और CSIR-इंटर-यूनिवर्सिटी एक्सेलेरेटर

(NPL) के सहयोग से रिसर्च एंड डेवलपमेंट सेंटर (RDC) और इंटरनल क्वालिटी एश्योरेंस सेल (IQAC) द्वारा आयोजित इस पहल ने प्रतिभागियों को नेशनल क्वांटम मिशन के विजन के तहत एक गहन शैक्षणिक अनुभव प्रदान किया। एक व्यापक पाठ्यक्रम के माध्यम से प्रतिभागियों को क्वांटम कंप्यूटिंग, क्वांटम सेंसिंग, क्वांटम कम्युनिकेशन, क्वांटम मेट्रोलॉजी, स्पेक्ट्रोस्कोपी, एक्सेलेरेटर साइंस, एटॉमिक फिजिक्स, साइबर सुरक्षा और हैंड्स-ऑन क्वांटम प्रोग्रामिंग से परिचित कराया गया। प्रतिष्ठित वैज्ञानिकों,

शिक्षाविदों और उद्योग के पेशेवरों के विशेषज्ञ व्याख्यानों के साथ-साथ इंटरैक्टिव प्रयोगशाला प्रदर्शन और व्यावहारिक प्रशिक्षण सत्र भी आयोजित किए गए। IIT दिल्ली, IUAC, CSIR-NPL और DRDO क्वांटम टेक्नोलॉजी रिसर्च सेंटर जैसे प्रमुख अनुसंधान संस्थानों के दौरान प्रतिभागियों को उन्नत प्रयोगशालाओं, एटॉमिक क्लॉक, लेजर मेट्रोलॉजी, एक्सेलेरेटर सुविधाओं, सटीक माप प्रणालियों और उभरती क्वांटम तकनीकों के बारे में बहुमूल्य जानकारी और अनुभव प्रदान किया।

जिलाधिकारी ने राजनीतिक दलों के प्रतिनिधियों के उपस्थिति में किया इंदौरम वेपराहास का त्रैमासिक निरीक्षण



वैल्यू एंड पीस एजुकेशन पर पुस्तक का विमोचन



Shyam Lal College concludes national summer school on quantum technology

TOP STORY NEWS

New Delhi: Shyam Lal College of the University of Delhi has concluded a 10-day National Summer School on Quantum Science and Technology, bringing together students from universities and colleges across the country for advanced training in emerging quantum technologies.

The programme was organised by the college's Research and Development Centre (RDC) and Internal Quality Assurance Cell (IQAC) in collaboration with the Indian Institute of Technology Delhi, Inter-University Accelerator Centre and CSIR-National Physical Laboratory under the vision of the National Quantum Mission.

The summer school featured lectures, laboratory



demonstrations and practical sessions covering quantum computing, quantum sensing, quantum communication, quantum metrology, spectroscopy, accelerator science, atomic physics, cybersecurity and hands-on quantum programming.

Participants also visited leading research institutions, including IIT Delhi, IUAC, CSIR-NPL and the Defence Research and Development Organisation Quantum Technology Research Centre, where they were introduced to advanced laboratories, atomic clocks, laser metrology, accelerator facilities, precision measurement systems and other emerging quantum technologies.

According to the organisers, the programme was designed to bridge the gap between theoretical learning and practical applications by providing students with exposure to cutting-edge scientific research and innovation.

छात्रों ने क्वांटम साइंस व टेक्नोलॉजी की ली जानकारी

श्याम लाल कॉलेज में किया गया आयोजन

पूरी दिल्ली, लोकसत्ता

दिल्ली यूनिवर्सिटी के श्याम लाल कॉलेज में क्वांटम साइंस और टेक्नोलॉजी: हैंड्स-ऑन एक्सप्लोरेशन एंड इमर्जिंग फ्रंटियर्स विषय पर 10-दिवसीय नेशनल समर स्कूल सफलतापूर्वक संपन्न हुआ।

इसमें पूरे भारत के विश्वविद्यालयों और कॉलेजों के छात्रों ने बड़ी संख्या में भाग लिया। यह कार्यक्रम युवा शिक्षार्थियों के बीच वैज्ञानिक उत्कृष्टता, नवाचार और अनुसंधान-उन्मुख शिक्षा को बढ़ावा देने के



को नेशनल क्वांटम मिशन के विजन के तहत एक गहन शैक्षणिक अनुभव प्रदान किया। एक व्यापक पाठ्यक्रम के माध्यम से प्रतिभागियों को क्वांटम कंप्यूटिंग, क्वांटम सेंसिंग, क्वांटम कम्युनिकेशन, क्वांटम मेट्रोलॉजी, स्पेक्ट्रोस्कोपी, एक्सेलेरेटर साइंस, एटॉमिक फिजिक्स, साइबर सुरक्षा और हैंड्स-ऑन क्वांटम प्रोग्रामिंग से परिचित कराया गया। प्रतिष्ठित वैज्ञानिकों,

शिक्षाविदों और उद्योग के पेशेवरों के विशेषज्ञ व्याख्यानों के साथ-साथ इंटरैक्टिव प्रयोगशाला प्रदर्शन और व्यावहारिक प्रशिक्षण सत्र भी आयोजित किए गए। IIT दिल्ली, IUAC, CSIR-NPL और DRDO क्वांटम टेक्नोलॉजी रिसर्च सेंटर जैसे प्रमुख अनुसंधान संस्थानों के दौरान प्रतिभागियों को उन्नत प्रयोगशालाओं, एटॉमिक क्लॉक, लेजर मेट्रोलॉजी, एक्सेलेरेटर सुविधाओं, सटीक माप प्रणालियों और उभरती क्वांटम तकनीकों के बारे में बहुमूल्य जानकारी और अनुभव प्रदान किया।

Delhi 02-07-2026

<http://epaper.loksatya.com/>

लोकसत्ता