



Zaheer Science Foundation (ZSF), in collaboration with the Faculty of Sciences, Jamia Millia Islamia, organized Part-2 of the IDL 2025 Workshop on “Familiarization of Quantum Science and Technology” on 16 October 2025 as part of the International Day of Light celebrations. The day-long event, attended by over 110 students, researchers, and faculty members, featured an inaugural session, technical talks, and a keynote address. Prof. Saeed Uddin welcomed participants and highlighted the workshop’s significance during Jamia’s 105th Foundation Year. Dr. Tabassum Jamal outlined ZSF’s mission and recent activities, while Prof. Zahid H. Khan explained the workshop’s student-focused approach and India’s strong engagement with UNESCO’s International Day of Light. He also acknowledged Prof. John M. Dudley for his recorded lecture and interactive Q&A session.

Prof. Tanu Jindal, Group Pro-VC, Amity University, drew parallels between quantum concepts such as superposition, entanglement, and the observer effect and philosophical ideas in Indian traditions, highlighting the deep scientific insights embedded in ancient Indian knowledge systems and mentioning quantum-related work underway at Amity University. The Chief Guest, Prof. Vibhakar Shrimali, Director & Professor at Delhi Skill & Entrepreneurship University, underscored the importance of strengthening India’s institutional and national capacity in quantum technologies. Dr. Nakul Parashar, CEO and Trustee of Shanti Foundation, delivered the Vote of Thanks and acknowledged the support of Shanti Foundation and Virtual Studio/vsworld.com.

The special keynote by Prof. John Dudley, Chair of the IDL 2025 Steering Committee, traced the scientific heritage of light science and quantum physics, recalling the global impact of the International Year of Light 2015 and connecting it with the UN’s decision to declare 2025 as the International Year of Quantum Science & Technology. He reviewed key milestones in optics and spectroscopy and the foundational contributions of pioneers such as Planck, Einstein, Bohr, Heisenberg, Schrödinger, and Dirac, also referencing the 2025 Nobel Prize on macroscopic quantum tunnelling. He emphasized the continuing relevance of light science, the importance of understanding its history, and the need for sustained investment in fundamental research.

The technical sessions highlighted major advances in quantum science. Dr. Balakrishnan Athiyaman introduced quantum computing, its advantages, applications from cryptography to drug discovery, and key challenges. Mr. Venkatesh Sharma discussed quantum healthcare, focusing on quantum computing for drug discovery, quantum sensing for diagnostics, and quantum-AI modelling. Dr. Bhaskar Kanseri reviewed progress in quantum communication, noting IIT Delhi’s achievements in entanglement-based QKD and its role in future secure networks. Dr. Ram Boojh linked these developments to the International Year of Quantum Science and Technology, emphasizing their relevance to climate modelling, pollution monitoring, renewable energy, and the UN SDGs, and the need for accessible quantum ecosystems in the Global South.

Overall, the workshop successfully familiarized students and young researchers with the scientific foundations, technological promise, and societal relevance of quantum science, while reinforcing India’s expanding engagement with global IDL and IQY initiatives.

