Summer School 2025 – Program Schedule (Tentative)

06 June 2025, Friday		
Day	**Time**	**Session Details**
Day 01	08:00 am – 09:15 am	Registration and Breakfast
	09:15 am – 10:30 am	Opening Ceremony & Welcome Address
	10:30 am – 11:00 am	Break
	Session 01	
	11:15 am - 12:00 pm	Exploring Quantumness of Macro-objects: Motivation, The State of Play, and a Novel Proposal **Prof. Dipankar Home,** ***Retired Senior Scientist, Dept. of Physics, Bose Institute, Kolkata***
	12:00 pm - 12:05 pm	Q & A
	12:05 pm - 12:50 pm	Physics and Consciousness **Shri Varun Agarwal**, ***Director, Bhaktivedanta Institute Kolkata, Alumnus IIT Kanpur***
	12:50 pm - 12:55 pm	Q & A
	01:00 pm - 02:00 pm	Lunch and Break
	Session 02	
	02:00 pm - 02:45 pm	AI & RI & Consciousness **Prof. Pankaj Joshi,** ***Distinguished Professor & Founding Director, International Center for Space & Cosmology, Ahmedabad University; Former Senior Prof. of TIFR Mumbai***
	02:45 pm - 02:50 pm	Q & A
	02:50 pm – 03:35 pm	TBD **Dr. S D Sudarsan**, ***Executive Director. C-DAC, Bangalore***
	03:35 pm – 03:40 pm	Q & A
	03:40 pm – 04:25 pm	TBD **Prof. A.K. Pati**, ***Director R & D, Quantum Synergy, India Former Senior Prof. TCG Crest, Kolkata & HRI, Allahabad***
	04:25 pm – 04:30 pm	Q & A
	04:30 pm – 05:00 pm	Break
	05:00 pm – 05:30 pm	TBD
	Session 03	
	05:30 pm – 06:15 pm	TBD (Online) **Prof. Anthony Leggett,** ***Nobel Laureate in Physics, University of Illinois, Urbana Campaign, USA***
	06:15 pm – 06:30 pm	Q & A
	06:30 pm – 07:15 pm	A First-Person Approach to Quantum Paradoxes and Beyond (Online) **Dr. Markus Paul Müller**, ***Institute for Quantum Optics and Quantum Information, Vienna, Austria***
	07:15 pm – 07:30 pm	Q & A
	07:30 pm – 08:30 pm	Cultural Program
	08:30 pm – 09:30 pm	Dinner
07 June 2025, Saturday		
Day	**Time**	**Session Details**
Day 02	08:00 am – 09:00 am	Breakfast
	Session 01	
	09:00 am – 09:45 am	Quantum Superposition Principle is ALL of Quantum Theory **Prof. N.D. Hari Dass**, ***Ex-Senior Professor, Institute of Mathematical Sciences, Chennai***
	09:45 am – 09:50 am	Q & A
	09:50 am – 10:35 am	Making Sense of the Quantum and Reprogramming the Human Mind **Shri Aditya Kumar Sinha,** ***Director, Centre for Development of Advanced Computing, Patna, India***
	10:35 am – 10:40 am	Q & A

Day 02	10:40 am – 11:00 am	Break
	11:00 am – 11:45 am	Do Extra Dimensions of Time help Resolve the Puzzle of Quantum Non-Locality? **Prof. Tejinder Singh,** ***Professor, Tata Institute of Fundamental Research (TIFR), Mumbai***
	11:45 am – 11:50 am	Q & A
	11:50 am – 12:35 pm	Why Quantum Physics Calls for an Interpretation **Shri K. Vasudeva Rao,** ***President, Bhaktivedanta Institute, Kolkata***
	12:35 pm – 12:40 pm	Q & A
	12:40 pm – 01:05 pm	Quantum Uncertainty and Information Theoretic Applications **Prof. Archan S Majumdar**, ***Senior Professor, S N Bose National Centre for Basic Sciences, Kolkata***
	01:05 pm – 01:10 pm	Q & A
	01:10 pm – 02:00 pm	Lunch and Break
	Session 02	
	02:00 pm – 02:45 pm	NIST's Post-Quantum Cryptography Standardization and Quantum Readiness **Dr. Kunal Abhishek**, ***Scientist E and Head of the Cyber Security & Forensics Department, CDAC Patna***
	02:45 pm – 02:50 pm	Q & A
	02:50 pm – 03:35 pm	Circuit Quantum Electrodynamics using High-Impedance Resonators and Qubits in Nanowire Quantum Dots (Online) **Dr. Deepankar Sarmah,** ***Basel University, Switzerland***
	03:35 pm – 03:40 pm	Q & A
	03:40 pm – 04:00 pm	Break
	Session 03: Young Mind Speaks	
	04:00 pm – 04:30 pm	Path Integrals, Uncertainty, Entropy and Information **Arpan Dey**, ***Bachelor of Science (Honors) in Physics, St. Xavier's College (Autonomous), Kolkata***
		Journey of the Heisenberg Uncertainty Principle: The Known, the Knowable, and the Unknowable **Yenegu Nikhil**, ***Ph. D. student, Department of Chemical Sciences, IISER Kolkata***
	Session 04	
	04:30 pm – 05:30 pm	Panel Discussion cum Interaction Session
	05:30 pm – 06:00 pm	Break
	Session 05	
	06:00 pm – 06:20 pm	Niels Bohr, Life behind the Science with a View to Connection to India (Online) **Dr. Vilhelm Bohr,** ***Chairman of Niels Bohr Archive, Ad. Professor University of Copenhagen, Grandson of Nobel Laureate Niels Bohr***
	06:20 pm – 06:30 pm	Q & A
	06:30 pm – 07:15 pm	A Novel View on the Foundation of Quantum Mechanics (Online) **Prof. Alfred Driessen,** ***University of Twente, Netherlands***
	07:15 pm – 07:30 pm	Q & A
	07:30 pm – 08:30 pm	Cultural Program
	08:30 pm – 09:30 pm	Dinner
08 June 2025, Sunday		
Day	**Time**	**Session Details**
Day 03	08:00 am – 09:00 am	Breakfast
	Session 01	
	09:00 am – 09:45 am	Toward a Modular Soliton-Polariton Quantum Supercomputer: Channel-Scaled Architecture and Invariant-Network Formalism for Quantum-Like Big-Data Analytics **Dr. Anirban Bandyopadhyay,** ***Principal Research Scientist, National Institute for Materials Science (NIMS), Tsukuba, Japan***
	09:45 am – 09:50 am	Q & A
	09:50 am – 10:35 am	The Unthinkable Machine: On the Limits of Mechanization of Human Thought and the Quantum Possibility **Shri Nishant Kumar Shekhar**, ***Scientist D, Quantum Group,***

		CDAC Patna
	10:35 am – 10:40 am	Q & A
	10:40 am – 11:25 am	Conservation of Conscious Experience: A Quantum Information Approach **Dr. Roshan Tiwari,** ***Research Scientist, Bhaktivedanta Institute, Kolkata, Alumnus IISER Kolkata***
	11:25 am – 11:30 am	Q & A
	11:30 am – 11:50 am	Break
	Session 02: Young Mind Speaks	
	11:50 am – 01:30 pm	Energy Eigenvalues of Confined Hydrogen Atom within Penetrable and Impenetrable Spherical Box using Finite Element Method **Binoy Kumar Mahato,** ***Ph. D. student, Department of Physics, Institute of Science, BHU Varanasi***
		Simulating Early-Universe Baryogenesis via Quantum Circuits: A New Approach to Matter-Antimatter Asymmetry **Mukul Kumar,** ***B. S. Applied Artificial Intelligence 1st year - IIT, Jodhpur***
		Quantum Physics and Consciousness **Debansu Adhikary,** ***B. Sc in Physics , AJC Bose College, Kolkata***
		The Quantum Revolution: A Historical Perspective **Yogesh Tambe**, ***B. Tech, Mechanical Engg., IIT Bhubaneswar***
		Bell's Theorem: Foundations, Derivation, and Implications for Quantum Mechanics **Ruthvik Galem**, ***Research Assistant, Bhaktivedanta Institute, Kolkata (Alumnus IIT Bhubaneswar)***
		TBA
	01:30 pm – 02:30 pm	Lunch and Break
	02:30 pm – 03:30 pm	Valedictory Session
	04:00 pm – 08:00 pm	Summer School Tour and Quantum Games
	08:00 pm – 09:00 pm	Dinner