

Dr. K.S. KRISHNAN MEMORIAL LEGTURE 2025



Light *Matters*: Building Blocks of Quantum Technologies by

Prof. Rupamanjari Ghosh

(Former Vice Chancellor, Shiv Nadar University)

Date: Thursday, December 4, 2025

TIME: 11:30 AM

Venue: NPL Auditorium

ABSTRACT

Dr. K.S. Krishnan was a pioneering figure whose experimental insight and advocacy were central to the early development and dissemination of quantum mechanics in India. As commemorate a century since the birth of quantum mechanics, this lecture -- in Krishnan's honor -- will reflect on the transformative role of Quantum Optics and Nonlinear Optics in enabling today's emerging quantum technologies. I will highlight selected results from our work, including the original development of entangled-photon sources and advances in quantum-memory protocols, illustrating how light-based platforms continue to shape quantum innovation. I will also touch upon the challenge of decoherence -- one of the fundamental barriers to scalable quantum systems -- and outline strategies aimed at mitigating its impact.

All are cordially invited to attend the lecture.



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"Light Matters: Building Blocks of Quantum Technologies"

Speaker:

Prof. Rupamanjari Ghosh

Former Vice Chancellor, Shiv Nadar University

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