



# PHOTONICS LECTURE

WEDNESDAY, 24 APRIL 2024 | 16:00 H

## PROF. DR. BIJOY KRISHNA DAS

LECTURE HALL 02

### *Distributed Bragg Filters and Resonators for Silicon Quantum Photonic Circuits*

Riding on the huge success of high-speed transceivers for the data centre market, the CMOS fabrication process compatible with silicon photonics technology is now in the forefront for the realization of futuristic scalable quantum photonic processors. In this talk, I shall discuss first fundamental challenges and limitations of integrating photon sources for large-scale quantum photonic circuits. Thereafter, I shall present some of our own efforts on the design and demonstration of distributed Bragg filters and programmable microring resonators making them suitable for the chip-scale integration of efficient quantum photonic sources.



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