



# Theoretical Quantum Optics Research of Dr. Sanjeeb Dey

@ Ramakrishna Mission Vidyamandira, (Calcutta University)

Belur Math, Belur, Howrah

## Principal Investigator

**Sanjeeb Dey**

Assistant Professor

B. Sc. (Physics Honours), M. Sc. (Electronics), Ph. D. (Quantum Optics)

[Linkin](#)





## RESEARCH INTEREST

- Linear, nonlinear and quantum optical properties of Dielectrics, Noble Metals, their Composite and Metamaterials using theoretical, computational method and experimental results.
- Computationally design new plasmonic, composite and metamaterials micro/nano-scales mono and multilayered structures. And studying "Critical coupling", "coherent perfect absorption", "Fano resonance", "Goos-Hanchen shift" and "plasmonics polariton excitation" on the structure.
- Applying Fabry-Perot cavity in the structurewe design to tunable/control of "Critical coupling", "coherent perfect absorption", "Fano resonance", "Goos-Hanchen shift" and "plasmonics polariton excitation" etc.
- Using the above result/propertieswe design optical devices, micro/nano level chip or sensor device.

## Publications & Patent

[Google Scholar](#)

[Research Gate](#)

## Group & Lab Members

## Current Activities in Lab

The page is under construction





# Teaching

*Aug 19 - Dec 19*

M. Sc. (IC-I Sem) - Quantum Chemistry

B. Sc. (Phy Hon - V Sem) - Quantum Mechanics

B. Sc. (Phy Hon - I Sem) - Mathematical Method

*Jan 20 - Jul 20*

B. Sc. (Com Sc Hon - IV Sem) - Opto electronics

B. Sc. (Phy Gen - IV Sem) - Electronics

B. Sc. (Phy Gen - II Sem) - Electronics

## For Students

# Research Projects & Collaborations

Applied

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