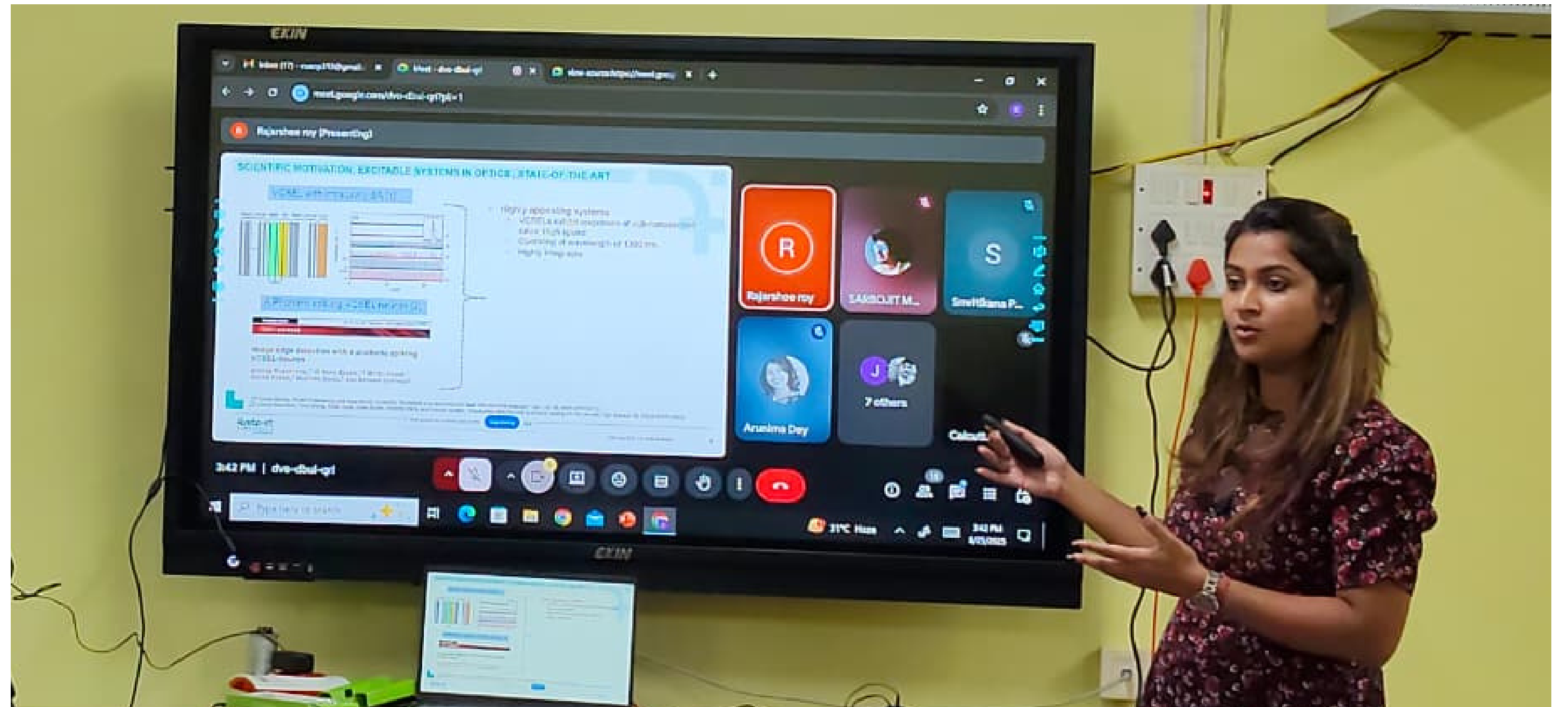




On behalf of the **Department of Applied Optics and Photonics**, the **OSI Student Chapter** is honored to have played a crucial role in organizing an academically enriching seminar on **Infrared Metamaterials**, presented by **Dr. Sreash Sarkar**. The seminar took place on **August 8th, 2025**, from 3:00 PM onwards at the Seminar Hall, Room No. 319, **University of Calcutta, Technology Campus**.

Research on thermal nanophotonics, Infrared optics and plasmonic metamaterials focusing on light-matter interactions in the infrared domain. Black silicon revisited as an ultrabroadband perfect infrared absorber over 20mm wavelength range where black silicon infrared absorption properties are explored, Demonstrating it's use as an ultrabroadband infrared absorber. These works collectively connect sreash sarkar to cutting edge research in infrared metamaterials and their applications in thermal radiation and sensing technologies.



On behalf of the **Department of Applied Optics and Photonics**, the **OSI Student Chapter** facilitated an insightful seminar on **Spiking Photonic Neural Networks**, by **Dr. Ria Talukdar**, held on **August 25th, 2025**, at 3:00 PM in Seminar Hall, Room 319, **University of Calcutta, Technology Campus**.

From this talk, we gained more insights into her PhD work. Her research introduces a scalable photonic spiking neural network consisting of 40,000 neurons using commercial optical components like spatial light modulators and CMOS cameras. This system models excitable biological neurons and is trained on machine learning tasks such as image classification with notable accuracy and sparsity, paving the way for efficient photonic neuromorphic systems.