



One Day Workshop on Photonic Materials and Devices

19th September 2025 Venue: PSG Institute of Advanced Studies

Key Topics

Luminescent Nanomaterials



Organic Optoelectronic Materials



Plasmonic Materials



Organized by

Department of Nanoscience & Technology and Chemistry
PSG Institute of Advanced Studies
Peelamedu, Coimbatore-641004
Tamil Nadu, India



Anusandhan National Research Foundation







About PSG Institutions



PSG Group of Institutions, founded in 1926, has been a pioneer role in shaping education and industry in India. With a legacy that stretches across the nation and around the globe, PSG continues to uphold its commitment to academic excellence. The institutions offer diverse disciplines including Arts, Sciences, Engineering, Medicine, and Management, providing comprehensive learning experiences. With a robust teaching staff of nearly 1,000 and a student community of up to 16,000, PSG has consistently set new benchmarks in education, empowering students to break barriers and excel in their respective fields.

About PSG Institute of Advanced Studies (PSG IAS)

PSG IAS, established in the year 2006 by the PSG and Sons' Charities Trust, is located in the heart of Coimbatore. The institute was founded vision of advancing science and technology translational research. It is committed to fostering high-quality research in specialized fields and promoting collaborations between institutions and international universities. The primary objective of the institute is to develop research and development (R&D) facilities in key areas while establishing academic partnerships with industries, research organizations, and universities both nationally and internationally. With its research infrastructure, PSG supports state-of-the-art IAS both fundamental and advanced research. The institute also offers ioint academic programs with renowned global universities (USA, UK. Germany and Australia).

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About the Workshop



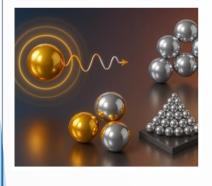
This workshop will bridge theoretical knowledge and practical applications in emerging research areas of photonic materials and devices, empowering attendees to effectively use nanophotonic techniques in their own research.

Luminescent Nanomaterials: Fundamentals and Applications

Fluorescence spectroscopy is a key technique for studying the optical properties of nanomaterials. This workshop covers fundamentals and applications, emphasizing nanomaterial characterization. Participants will gain practical skills, learn data analysis, and explore how nanoscale effects impact emission



Manipulating Light at Nanoscale: Applications in solar cells, SERS & optical limiting



This workshop will focus on the utilization of plasmonic nanomaterials for nanoscale light manipulation, facilitating enhanced light-matter interactions through localized surface plasmon resonances. In addition, the session will cover their role in photon absorption and charge carrier dynamics in photovoltaic systems, amplifying Raman signals in Surface-Enhanced Raman Scattering (SERS), and enabling nonlinear optical responses for optical limiting applications.

Tuning Conjugated Organic Material Properties for Optoelectronic Applications

Conjugated organic materials are vital for next-gen optoelectronics like organic and perovskite solar cells. This talk highlights molecular strategies to optimize their structure, electronics, and stability. Key topics include donor-acceptor design, morphology control, and practical applications. Recent advances and characterization tools will be discussed to guide sustainable, high-efficiency solar technologies.







Who can apply?

08.30-09.00 AM

PG students, Research scholars and Faculty members

Registration

Tentative schedule

09.00-09.15 AM	Inauguration
09.15-10.15 AM	Luminescent of Nanomaterials: Fundamentals and Applications
10.15-10.30 AM	Break
10.30-11.30 AM	Manipulating Light at Nanoscale: Applications in solar cells, SERS & optical limiting
11.30-12.30 PM	Tuning conjugated organic material properties for optoelectronic applications

12.30-01.45 PM Lunch

01.45-03.30 PM Laboratory visit

03.30-03.45 PM Break

03.45-04.00 PM Valedictory function

Registration Fee Details

Student/Research Scholar : Rs. 500/- (Plus 18% GST)

Faculty/Industrial Participant : Rs. 700/- (Plus 18% GST)

Kindly Submit the Google Form for Registration with

Payment Details: https://forms.gle/65tGinL3kps6642n7

Bank Account Details

Account Name : PSG Institute of Advanced Studies

Account Number : 1481412317
IFSC Code : CBIN0280913

Bank Name : Central Bank of India
Branch : Peelamedu, Coimbatore

Register



Last Date for Registration is 10.09.2025