

### Registration Fee

**Rs. 750** (plus 18% GST) for students

**Rs 1000** (plus 18% GST) for faculty members

**Number of participants is restricted to 25**

The registration fee can be paid to the following account:

Account Name: **PSG Institute of Advanced Studies**

Account Number: **1481412317**

IFSC Code: **CBIN0280913**

Bank Name: **Central Bank of India, Peelamedu**

Please send details of your payment to

[rss@psgias.ac.in](mailto:rss@psgias.ac.in) (or) [dgp@psgias.ac.in](mailto:dgp@psgias.ac.in)

Last date for registration is **30<sup>th</sup> September 2022**

Registration link:

[https://docs.google.com/forms/d/1vv\\_zPVuI4njOqHy62ANB9tGDm26wXKAq\\_khAlsTpE1o/edit](https://docs.google.com/forms/d/1vv_zPVuI4njOqHy62ANB9tGDm26wXKAq_khAlsTpE1o/edit)

**e-certificates** will be provided

### FOR REGISTRATION CONTACT

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## One day workshop on Fourier Transform Infrared Spectroscopy (FTIR) and Surface Plasmon Resonance (SPR)



10<sup>th</sup> October 2022

Nanotechnological tools are ever-evolving in accommodating and investigating new materials, processes and applications. With this view, PSG Institute of Advanced Studies is organizing an one-day workshop on Fourier Transform Infrared Spectroscopy as well as Surface Plasmon Resonance and their significance in the field of nanotechnology. The focus will be on the fundamentals of these two aspects with regards to nanomaterials as well as on data acquisition, analysis and demonstrations to the participants.

**Organized by**

**Department of Chemistry and Nanoscience  
and Technology**

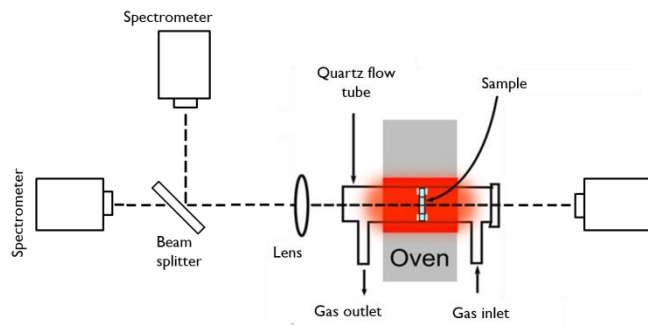
**PSG Institute of Advanced Studies**

**Coimbatore – 641004, Tamil Nadu**

**India**

## Fourier Transform Infrared Spectroscopy (FTIR)

FTIR – Shimadzu IR Affinity model is a double beam spectrometer with a wavenumber range from  $4000\text{ cm}^{-1}$  to  $400\text{ cm}^{-1}$  and a maximum resolution of  $0.5\text{ cm}^{-1}$ . Generically fitted with the Attenuated Total Reflectance (ATR) acquisition using ZnSe crystal, solid, liquid, thin films and fibre samples can be analyzed. Powder samples can also be analyzed through the KBr pellet mode.



## Surface Plasmon Resonance (SPR)

Surface Plasmon Resonance is a unique property of nano materials/nano sized interfaces. This property has a myriad of applications in sensing, communication and catalysis among others. An insight on the potential of SPR with regards to materials / properties and their applications in different markets will be discussed.

## Tentative schedule

- 8.30-9.00 AM – Registration
- 9.00-9.30 AM – Inauguration
- 9.30-10.45 AM – Fundamentals of SPR- Dr. Gnanaprakash D
- 10.45-11.00 AM – Break
- 11.00-12.15 PM – Sensitization of FTIR spectroscopy – Dr. R. Sivasubramanian
- 12.15-1.30 PM – Lunch
- 1.30-3.30 PM – Demonstration
- 3.30-3.45 PM – Break
- 3.45-4.00 PM – Valedictory function

## Patron

- Shri L. Gopalakrishnan, Managing Trustee, PSG & Sons' Charities

## Convenors

- Dr. J. Kanchana  
*Deputy Director, PSG IAS*
- Dr. P. Biji  
*HOD Chemistry/Nanoscience and Technology, PSG IAS*
- Dr. R. Sivasubramanian  
*Assistant Professor (Sr. Gr), PSG IAS*
- Dr. D. Gnanaprakash  
*Assistant Professor (Sr. Gr), PSG IAS*

## Co-ordinators

A. Ruby, T. Manimekala, V. Sruthi,  
T. Swathi, A.R. Indhu, L. Keerthana,  
C. Dharanya