

Theory and demonstration sessions will be handled by the faculty members and Technical staff of PSG IAS.

The details of the programme and application form for participation are also available in the website www.psgias.ac.in

Registration Rs. 750 (including 18% of GST) for students
Fee Rs. 1000 (including 18% of GST) for faculty members

Number of participants is restricted to 20

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 your Transaction details of payment to hrtm@psgias.ac.in

Last date for registration is 15th August 2022

Registration link : <https://forms.gle/vbmrT24x8i5Y6jRA7>

e-certificates will be provided



*One day
Workshop on*
**High Resolution Transmission
Electron Microscopy**

18th August 2022

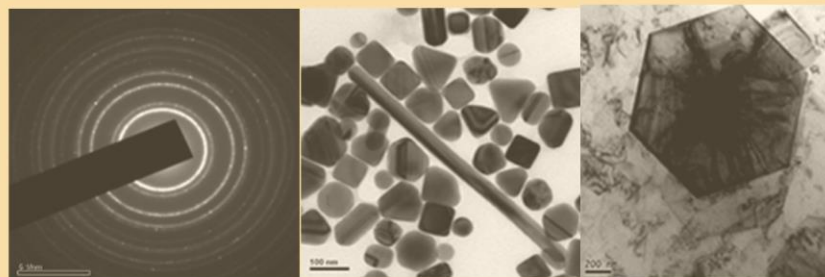
Organized by

**PSG Nanotech Research, Innovation and Incubation Centre
PSG INSTITUTE OF ADVANCED STUDIES
Coimbatore - 641004, INDIA**

For registration and other details contact:

HRTEM Facility,
PSG Institute of Advanced Studies,
Peelamedu, Coimbatore - 641 004
Mob.No : 87540 00460
Email : hrtm@psgias.ac.in

Contact no.: 0422 4344000 Extn 4321



PSG INSTITUTE OF ADVANCED STUDIES

Coimbatore 641004

Announces

One day Workshop on

High Resolution Transmission Electron Microscopy

Characterization is one of the very essential requirements of material research. PSG institute of Advanced Studies is equipped with state of the art facilities for nanomaterial synthesis and characterization.

High Resolution Transmission Electron Microscope facility:

The JEOL JEM 2100 High Resolution Transmission Electron Microscope (HRTEM) provides one of the best-in-class solutions to problems in diverse fields ranging from Materials Science to Biology. The instrument can be operated in several acceleration voltages according to the material requirement and is equipped with analysis techniques such as Bright Field (BF) and Dark Field (DF) imaging, High Resolution Electron Microscopy (HREM), Selected Area Electron Diffraction (SAED), Energy Dispersive X-ray Analysis (EDS), Nano Beam Diffraction (NBD) and Convergent Beam Electron Diffraction (CBED). The image recording is done with Gatan Orious CCD camera. The HRTEM facility is also equipped with sophisticated specimen preparation equipments to prepare TEM specimens.

About the training programme:

The main aim of one day workshop on 18th August 2022 at Nanotech Research, Innovation and Incubation centre of PSG IAS is to bring awareness and enrich the understanding about Transmission Electron Microscopy

The participants will be given a brief understanding about the theory and various techniques involved in material characterization using HRTEM. This will be followed by the following activities.

- Detailed demonstration of the instruments and their usage
- Various analysis techniques
- TEM specimen preparation
- Training to perform basic level of data analysis

Tentative programme schedule:

Friday, 18th August 2022

8.30 AM- 9.00 AM - Registration

9.00 AM- 9.05 AM - Welcome address

9.05 AM- 9.15 AM - Introductory remarks

09.15 AM- 10.30 AM - Theory

(TEM -principles, equipment various image techniques)

10.30 AM- 10.45 AM - Tea break

10.45 AM- 12.15 PM - Theory (Diffraction & Specimen preparation)

12.15 PM-12.30 PM - Tour of various labs at PSG IAS

12.30 PM- 01.30 PM - Lunch Break

01.30 PM- 02.15 PM - Demonstration

Group A-HRTEM Group B- Specimen preparation

02.15 PM - 03.00 PM - Demonstration

Group B-HRTEM Group A- Specimen preparation

03.00 PM - 03.15 PM - Tea break

03.15 PM - 04.15 PM - Data analysis on TEM imaging and Diffraction

04.15 PM - 04.30 PM - Concluding session

Convenors

Dr. J. Kanchana,
Deputy Director, PSG IAS

Dr. Anuradha M Ashok,
Associate Professor, PSG IAS

Dr. T. Vijayaraghavan,
Research Scientist, PSG IAS

Co - Ordinators

Mr. K. Sathish Kumar,
Technical Staff, PSG IAS

Mr. M. Prakatheswaran,
Technical Staff, PSG IAS

Mr. T. Kubenthirapandian,
Technical Staff, PSG IAS