SEM Facility

Rules for using SEM facility at PSG IAS

- ➢ Nanotech facility services can be availed on charge basis.
- ➢ Prior registration with advance payment is essential to avail any of these facilities.
- ➢ Appointment will be given as per queue and the allotted time for the slot will be informed through E-mail sem@psgias.ac.in
- ➢ For a better analysis basic details about the sample should be given.
- ➢ Before giving the sample for SEM analysis, it is suggested that the sample is characterizedby any other techniques such as XRD, TG-DSC and DLS etc.
- ➢ No refund of the payment made in any case.
- ➢ External colleges & Universities and industry users should pay the charges in advance before the characterization is carried out.

Faculty In-Charge: Dr. Anuradha M. Ashok, Associate Professor, PSG IAS

SEM & EDS Specification

Carl ZEISS EVO 18- Germany- Operating modes Secondary electron (SE) and Backscattered electron (BSD) Modes. Up to 200 nm resolution depends up on samples. It is attached with AMETEK Team V.4.3 EDS detector.

SEM Sample preparation

➤ User may prepare their SEM Samples by themselves.

➤ SEM specimen for biological samples should be prepared by the user.

➤ **Metallic samples**

• Bulk metallic samples size should be less than **1cm * 1 cm *1cm** and also base of the sample should be perfectly Flat.

➤ **Powder samples**

• Powders samples should be in perfectly dried condition. Quantity of the powder samples needed **5 to 10 grams**.

➤ **Biological Samples**

• Biological Samples should be in perfectly dried condition. Base of the sample should be perfectly as Flat (Bead, Solid etc).

Charges for using SEM Facility at PSGIAS

S.No	Analysis		Internal	External	Industry
				Per Sample	
1	**Coating**		**100 /-**	**250 /-**	**500 /-**
2	**SEM Analysis**		**500 /-**	**750 /-**	**1500 /-**
3	**EDS**	**Spectrum only (No image)**	**100 /-**	**250 /-**	**750 /-**
		Point analysis	**200 /-**	**400 /-**	**1000 /-**
		Elemental mapping	**200 /-**	**500 /-**	**1500 /-**
4					
5	**One Slot for 45 Minutes***		**1500 /-**	**2500 /-**	**5000 /-**
6	**Including 18% GST**				

* Number of samples that can be analysed per slot quantity will depend on nature of the sample and data required.