Field Emission -Scanning Electron Microscope (FE-SEM)

Schedule of Charges per sample

(Inclusive of Taxes and Consumable Cost) (W.e.f. 1st January'2016)

Note:

- 1. All the users are required to submit MSDS (Material Safety Data Sheets) for each sample they submit and a certificate stating that the samples submitted are non-toxic / non-hazardous and that the sample does not require special precaution while handling.
- 2. An additional charge of Rs.100/- is applicable for Speed Post to all users getting delivered their results in form of CD to them through speed post. Dispatch address will be same as address on letter head.
- 3. Service Tax is applicable to all the users and is calculated as per current rate of <u>14.50%</u>.
- 4. All the samples should accompany the payment, in order to be considered for registration and analysis. All the payments should be made in advance by: (a) <u>Demand Draft (DD) in favour of : "Director, College of Engineering Pune"</u>, payable at Pune or, (b) Wire transfer by RTGS/NEFT: The UTR No. generated during such transactions with your Institute/Industry/R&D lab name is to be send by e-mail to <u>fesemlab@coep.ac.in</u> with a cc to <u>spb.meta@coep.ac.in</u>, <u>acco@coep.ac.in</u>, <u>am@coep.ac.in</u> and <u>pagdalloas.office@coep.ac.in</u>. The details of our account are as given below.

Bank Information	
Account Name	Director, College of Engineering, Pune
Account Number	11099464977
Bank Name	State Bank of India
Branch Address	College of Engineering, Pune
IFSC Code of bank branch	SBIN0010431
Branch Code	10431
MICR Code	411002060
Whether bank branch is NEFT enabled ? (Yes / No)	Yes

5. The samples can be sent by post or directly deposited in the FE-SEM lab. Please enclose the payment along with the REQUISITION LETTER (as per format given separately) and the samples. Address this letter along with the requisite amount crossed Demand Draft to "<u>The Head, Department of Metallurgy and Materials Science, College of Engineering Pune, Wellesley Road, Shivaji Nagar, Pune – 411005.</u>"

The user is welcome to be present in the laboratory during analysis. If you are not able to be present at the time of appointment then please mention as much details as possible like:

- **H** Expected features you are looking for. (If available send a representative picture also)
- 4 Up to what magnification images you want.
- **4** About nature of your sample like whether it is conducting OR non-conducting.
- If it needs to be dispersed in any solvent (for powdered sample). (If required attach a separate sheet.)
- 6. On receipt of the payment along with the samples, those will be registered for analysis and taken up for measurement as per the seniority/queue of the users.

On receipt of your Requisition letter along with payment, then only you will be given a date of appointment. The date & time of slot will be informed by e-mail. On completion of the analysis, the SEM images/EDS spectra along with the receipt / bill will be handed over to the user.

- 7. Sample Requirements:
 - a) The samples should be *dry*, *free of oil/lubricant/wax/dust*, *non-volatile* and should withstand high vacuum of ~ 10^{-5} Pa).
 - b) Wet biological sample can't be done in FE-SEM.
 - c) The sample size should be less than 12.5 mm x 12.5 mm x 10 mm (height) and the side opposite to the side of interest, should be flat (to enable sample mounting). The smaller the sample height the better.
 - d) Maximum Number of images allowed per sample for SEM is <u>3</u>.
 - e) Maximum number of EDS analysis allowed per sample should not exceed the number of images.
- 8. Please note that in the event the DD amount/payment received is more than the actual analyses charges incurred, it will NOT be possible to refund the excess amount paid. However, the excess amount may be adjusted against future analyses by the same user or another user from the same organization following a written request by Email or hard copy. Refund of analysis charge may be done only in unavoidable circumstances. Service tax amount paid will not be refunded.

- 9. Charges: A "Three Tier" Charge System is being followed. Please note that:
 - The charges mentioned are for analysis of samples received from users within India only.
 - For overseas users, please contact COEP-Meta dept. by Email directly.
 - Charges are subject to change periodically

Field Emission-Scanning Electron Microscope (FE-SEM) (Service Tax @ 14.50% to be paid extra)

Type of analysis	Industry	National Lab/R&D labs/ R&D projects	Academic Institutes/ University	Remarks
SEM Image Analysis	2000/-	1500/-	500/-	Per Sample
EDS	600/-	300/-	300/-	Per Sample
Sputtering (Coating)	300/-	200/-	200/-	Per Sample

- No charges for ongoing project work of UG-PG students of COEP persuaded under COEP faculty and R&D work of COEP faculty on seeking appropriate approval.
- COEP faculty is requested to declare their consultancy work as this will help the department to cover up the huge annual operational and maintenance cost of FE-SEM.

Other Support Services (Service Tax @14.50% extra)

Service	Rate per sample
Cutting sample to size for fitting in sample holder	Rs. 500/-
Sample polishing and etching Normal (e.g. steel)	Rs. 500/-
Special (e.g. Al alloys)	Rs. 1000/-

- 10. These are the minimum charges. Additional charges may be levied depending on the nature and complexity of the problem. In such cases please contact FE-SEM Lab Incharge.
- 11. It is requested that in all publications of research work, wherein the FE-SEM services of the COEP-Meta department have been made use of, the department may please be duly acknowledged.

- 12. In special cases of giving any discounts on analysis charges (or no charges), an approval from either Dean (R&D) or Director (COEP) in addition to FE-SEM lab incharge and HoD (Meta) is to be sought.
- 13. Contact details

Tel: 020-25507638/7263/25507000

Fax: 0091-20-25507299

Email Id : <u>fesemlab@coep.ac.in</u>

Website: <u>www.coep.ac.in</u>

14. Instrument Details

Model	: SIGMA HV
Resolution	: 1.3 nm (20 KV), 2.8 nm(1 KV)
Accelerating Voltage	: 0.1 to 30 KV
Magnification	: x50 to 10,00,000



15. These rates are applicable till revised further.

Department of Metallurgy and Materials Science, College of Engineering Pune, Wellesley Road, Shivaji Nagar, Pune-411005.